

 <p data-bbox="236 539 475 577">Agreement on the Conservation of Albatrosses and Petrels</p>	<p data-bbox="596 241 1390 338" style="text-align: center;"><b>Tenth Meeting of the Advisory Committee</b> <i>Wellington, New Zealand, 11 – 15 September 2017</i></p> <p data-bbox="544 412 1347 508" style="text-align: center;"><b>Workshop on <i>Pterodroma</i> and other small burrowing petrels</b></p> <p data-bbox="815 533 1082 568" style="text-align: center;"><b><i>Workshop Chair</i></b></p>
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### **SUMMARY**

A workshop was held by ACAP on 10 September 2017 with the objective of advancing understanding about best approaches for international cooperation in the conservation of *Pterodroma* and other small burrowing petrel species.

The workshop supported ACAP increasing its role in international conservation actions for gadfly petrels, and in future perhaps the shearwaters, storm petrels and remainder of the Procellariidae. It was recognised that an increased role was constrained by resources and should be focussed on those species that would gain most from international conservation action. Overall these smaller species (both gadfly petrels and others) are affected predominately by land-based threats as opposed to the sea-based threats faced predominantly by the current ACAP species. ACAP may wish to revisit its prioritisation process to focus more on land-based threats.

There is a case for a limited number of additions to ACAP's Annex, but such additions needed to ensure sufficient resources were available, or a strong commitment to obtain such resources, to avoid dilution of existing conservation actions. The refreshing and possible further branding of relevant conservation guidance would be a comparatively straightforward addition to ACAP's work programme. The creation of additional guidance on collision/grounding, light attraction, and nest finding was recommended. Improved links with other international initiatives addressing invasive species and other land-based pressures were encouraged. ACAP should consider more formal links to specialist groups, working in relevant fields, in order to stimulate further support and expertise.

The need to include social science and sustainable development issues into the design and execution of invasive eradication projects, especially on inhabited islands should be noted.

### **RECOMMENDATIONS**

1. The Advisory Committee should revisit and complete a revised prioritisation process as soon as possible
2. Based on this prioritisation, Parties may wish to bring forward further species for consideration as additions to the Annex; cases for addition should address the resource needs of such additions.

3. The Agreement should improve linkages to existing international conservation efforts for land-based threats, particularly those working on eradication of invasive species.
4. A portfolio of conservation guidelines for gadfly petrels and smaller Procellariformes would be a useful addition to ACAP guidance.

## **1. BACKGROUND**

### **1.1 Terms of Reference**

The one-day workshop was convened on 10 September 2017 in Wellington, New Zealand at the request of the Advisory Committee with the following aims:

1. To share information about current understanding of conservation threats to *Pterodroma* and other small burrowing petrel species, whether on land, at-sea, or generalised in nature;
2. To consider whether and to what extent international cooperation would assist in addressing these threats;
3. As relevant, to consider modalities for international cooperation; and
4. To prepare a report and recommendations for consideration at the Sixth Session of the Meeting of the Parties to the Agreement in 2018.

The workshop was chaired by Mark Tasker (UK) with John Cooper, ACAP Information Officer acting as rapporteur, with 30 attendees.

### **1.2 Introduction**

The workshop noted that a report on the workshop would be given to ACAP's 10th Meeting of its Advisory Committee, after which advice would be prepared for MOP6 in 2018. It was agreed that although the workshop was centred on gadfly petrels (genera *Pterodroma* and *Pseudobulweria*), it was likely that many of the outcomes would be relevant to the conservation of other small *Procellariform* species (including shearwaters, storm petrels and diving petrels).

## **2. STATUS AND CONSERVATION NEEDS OF PTERODROMA AND OTHER SMALL BURROWING PETREL SPECIES**

### **2.1 Overview review**

Karen Baird (Forest & Bird, New Zealand) presented a review paper entitled "Status, trends and conservation management needs of the *Pterodroma* and *Pseudobulweria* petrels" on behalf of authors Ben Lascelles, Rocio Moreno, Maria Dias, and Cleo Small of BirdLife International. This review had been commissioned by ACAP.

Gadfly petrels are a complex group of 39 extant species found in tropical and temperate regions. Many are single-island endemic breeders, often nesting in very remote and inaccessible areas. All are migratory, with records of at least one species in over 100 countries; and occurring as a breeder or resident in 44 countries; 26 species visit 10 or more countries. The Global procellariform tracking database however only includes data from 17 species at present.

The analysis found that of the 39 species almost 67% are globally threatened by IUCN criteria with a further 10% Near Threatened. 58% of species have a decreasing population trend, eight species have a single subpopulation and seven species have population sizes of less than 250 mature individuals.

Common threats faced by gadfly petrels on land include introduced predators, habitat loss/alteration, and vulnerability due to limited numbers of known breeding sites. A pressure that is less well known comes from human lighting. Pressures at sea, if any, are generally poorly known, but unlikely to be significant. Conservation actions required were heavily weighted towards control of invasive species, with re-introduction, site protection and management, improved legislation, development of recovery plans and increased awareness and communication also being commonly required.

The paper (including its Annex) made several recommendations to improve knowledge of the group.

In discussion, the meeting reviewed conservation needs at sea and on land.

## **2.2 Bycatch and other at sea pressures**

It was agreed that there were few records of at-sea interactions with fisheries. In a recent global review (Pott and Weidenfeld 2017), five species of gadfly petrel had been recorded by caught in drift gillnets, while one species (Grey-faced petrel) had been reported as bycatch in demersal and pelagic longline fisheries. In addition, one species (Tahiti petrel) had been reported entangled and released alive in the Australian Northern Prawn Trawl Fishery

It was noted that gadfly petrels are generally deep-water foragers in areas where fishing vessels had fewer observers to record incidences. Most gadfly petrels tend not to approach and compete for food behind fishing vessels, and were thus less likely to be caught. In addition, for the rarer gadfly petrels, fewer interactions with fisheries could occur and would be difficult to observe; even a very small bycatch rate could be detrimental to a small population of a species. Although it seemed unlikely that there were population level effects from bycatch, it was considered desirable to keep a 'watching brief' for any fishery interactions.

The attraction of strong-flying and generally ship-avoiding gadfly petrels to nocturnal squid jiggers with strong lighting was largely unknown, as were levels of attraction to other vessels, including well-lit cruise ships at night.

## **2.3 Land-based threats**

The workshop noted that invasive predators had long posed the greatest threat to many species of gadfly petrel, and had likely driven some species to extinction in the past and was the driver behind the Critically Endangered status of several species. Several countries had already initiated eradication and control programmes. Eradication techniques are already reasonably well-known and projects for eradication (whether for gadfly petrels or not) have been mostly implemented in developed countries, as opposed to developing countries. This pattern though reflects the distribution of important sites for gadfly petrels.

There is some deliberate take of gadfly petrels in some places, and disturbance by human activity has affected breeding distribution. The problem of attraction to land-based light, particularly by juveniles is widespread at breeding sites relatively close to seabird colonies. Habitat alteration from e.g. forestry, agriculture, urban development has also restricted potential breeding sites.

## **2.4 Widely spread threats and pressures**

Climate change is affecting gadfly petrels in several ways, including through sea level rise leading to the loss of low-lying breeding sites. The effects of pollutants (aside from light) are unknown.

## **2.5 National knowledge of *Pterodromas***

Colin Miskelly on behalf of co-authors described New Zealand's database on the distribution and status of gadfly petrel colonies in New Zealand. This contains all known records of colony presence and colony size estimates for *Pterodroma* petrels in New Zealand. The database has 606 records of 11 species from 253 separate locations. There probably further sites to be discovered.

## **2.6 International conservation initiatives for *Pterodromas***

Hannah Nevins described the activities of the American Bird Conservancy with Hawaiian, Black-capped and Galapagos Petrels.

For the Hawaiian Petrel, it was noted that chick translocations into a secure fenced area on Kauai were about to go into their second year. Research and management activities were occurring in relation to predation by cats and from night-time collisions.

Black-capped Petrel work was at the level of searching challenging terrain and habitat for colonies in the Dominican Republic and Haiti. Threats included habitat loss from deforestation and agricultural practices, introduced predators and night-time collisions.

For the Galapagos Petrel, a working group has undertaken at-sea satellite tracking and nest monitoring at four sites. There was a need to involve governmental authorities (Galapagos National Park) more formally.

Chris Gaskin concluded the presentations with a summary of the international Petrels in Peril initiative in Oceania. Parts of this initiative have moved forwards, especially those relating to very rare or unknown species. Species investigated included Fiji Petrel (no breeding site has been confirmed), Beck's Petrel (breeding sites also not confirmed but one bird, thought to be a non-breeder, has been caught at sea and satellite tracked), a "Coral Sea" storm petrel *Fregatta* sp. currently being described, Vanuatu Petrel, Polynesian Storm Petrel, Phoenix Petrel of Kiribati, Magnificent/Gould's Petrel, Tahiti Petrel and two undescribed storm petrels.

It was noted that there was still much basic science needed in even determining whether there were further species of Procellariiforms. Some species, such as some of those listed above, are still to be described taxonomically; others may be "cryptic" (two or more species currently classified as one).

In discussion, James Russel noted in relation to invasive eradication particularly on populated islands. In these circumstances, there is often public resistance to widespread killing to conserve other species. In these cases, downplaying the biodiversity goals, but emphasizing the social goals, such as better food supply and health is much more likely to be successful. This points to the need to take greater cognisance of social sciences when designing invasive eradication schemes.

## **2.7 Summary of threats and pressures**

In summary, it was agreed that known or potential at-sea pressures did not rise to the level of those threats known to occur on land. The level of knowledge of some of the gadfly group is in some cases not even basic.

## **3. THE EXTENT TO WHICH INTERNATIONAL COOPERATION WOULD ASSIST IN ADDRESSING THE THREATS TO GADFLY PETRELS**

There was a wide-ranging discussion on areas where international co-operation could enhance national efforts to conserve gadfly petrels. These are summarised below along with evidence and points put forward during discussion.

### **3.1 Translocation across boundaries**

Some conservation actions include translocation projects – examples include:

- a) ensuring that species nesting on low-lying islands subject in the short-term to the risk of inundation through weather events such as hurricanes, or longer-term through sea level rise, are provided with colonies on higher ground
- b) small dispersed populations, a characteristic of some gadfly species have also the risk of in-breeding. Translocation of chicks into denser colony areas will help ensure higher genetic diversification.

Both issues may require cross-boundary translocation. An example was given of Bonin's Petrel that breeds on very low islands in the north-west Hawaiian group, where the most suitable "high" island is Japanese.

### **3.2 Enhance flow of resources**

Formal international recognition of a species as requiring conservation action may stimulate the flow of both national and international funds. An example of the Balearic shearwater was given, but here it is difficult to differentiate between the various listings of this species as to which listing was the most useful – or if multiple listings were more useful than a single listing.

### **3.3 Transfer of expertise**

The current export of knowledge and skills on alien predator control and eradication from developed countries, such as New Zealand, to less developed countries, such as small island states, was one example of how international actions could be advantageous to addressing largely domestic threats.

In New Zealand, trained search dogs have helped in locating nests of widely dispersed species nesting in hidden places, for example Chatham Island Taiko/Magenta Petrel *P. magentae*. It is very difficult to carry out land-based management if breeding sites are unknown. In this example, chicks were moved from isolated nests to a fenced sanctuary (currently supporting eight pairs with 30 chicks translocated). This will reduce genetic inbreeding in future generations. This experience with finding nests, along with the expert nest dog could be transferred between countries.

### **3.4 Raising of awareness and profile of issues around smaller petrels**

This is related to the above and is of course not exclusive to international action. Fenced sanctuaries can have an educational role with local inhabitants.

## **4. WAYS IN WHICH ACAP MIGHT ENHANCE INTERNATIONAL COOPERATION FOR THE CONSERVATION OF GADFLY PETRELS**

The workshop considered the advantages and disadvantages of several ways in which ACAP might further enhance the conservation of gadfly petrels. Many actions that ACAP Parties are already taking will have beneficial effects on these smaller petrels, but it was nevertheless recognised that more targeted efforts were required, especially in smaller developing nations that host breeding gadfly petrels. The issue of resources affects all options as they should all result in conservation action on the ground. There is wide concern over the risk of dilution of conservation efforts currently being undertaken by ACAP and its Parties by the addition of more conservation tasks, without the parallel addition of more resources.

### **4.1 Addition of gadfly petrel species to ACAP Annex 1**

ACAP's existing prioritisation (for new species to add to Annex 1) process has tended to put *Pterodromas* at a relatively low priority along with other small petrels and shearwaters. This is because many are single State breeders and the threats tend to be on land and not at sea and therefore their conservation is a more national rather than international issue. This prioritisation process is due to be revisited, starting with a decision as to which global taxonomic treatment to follow in carrying out that process. Any additions to ACAP's Annex 1 requires a case to be made by a proposing Party – this case is a draft Species Assessment. Several options exist to identify which species might benefit most from listing by ACAP.

#### **4.1.1 Follow CMS Appendix listing**

Four *Pterodroma* gadfly petrels (Bermuda *P. cahow*, Galapagos *P. phaeopygia*, Hawaiian *P. sandwichensis*, Henderson *P. atrata*) and the Peruvian Diving Petrel *Pelecanoides garnotii* are listed in CMS Appendix 1, which is meant to engender "concerted action". Appendix I species should be globally threatened and the nominating Party must explain what conservation activities that it plans to undertake for the listed species. The listed species appeared to be a relatively arbitrary selection, that perhaps is not very helpful for prioritization by ACAP. It was noted that for some of the five CMS listed species, little or no action had been taken by CMS Parties, whereas for others (e.g. Bermuda petrel) it was difficult to conceive what further action could be taken to conserve the species beyond the excellent national efforts, and therefore could see little advantage in listing by ACAP.

#### **4.1.2 Select most urgent species following ACAP's prioritisation process**

The prioritisation process aims to indicate which species are the most likely to benefit from international conservation action. The factors used in the reprioritisation could further emphasise some of the advantages of international conservation action outlined in section 3 of this report.

#### **4.1.3 Following IUCN Red list**

This list identifies the species in most urgent need of conservation action, but not necessarily the species that would benefit most from international conservation action – the example of the Critically Endangered Bermuda Petrel given above being a good case where there would be little gain from following this approach.

#### **4.1.4 Add all species to ACAP**

This option was not supported by the workshop as it would take a great deal of effort and would likely over-dilute existing resources.

All additions to ACAP's Annex 1 would take a minimum of four years from 2017. This is because the proposing Party would need first to submit their proposal for scrutiny to the Advisory Committee and its working groups for scrutiny, after which the Committee would advise the Meeting of the Parties. It is now too late for the next session of the Meeting of the Parties (MoP6) to be held in 2018; the subsequent session will be in 2021.

#### **4.2 A third Annex to ACAP**

This might be a way of listing smaller petrels for differing conservation actions. This though would require changing the Agreement's text, leading to new negotiation and would also be subject to international consensus, often through Parliaments. This process would likely take at least two three-year cycles of the Meeting of the Parties. If a proposed species was breeding only in a single State, it would also be important for that State to be fully involved in the process. This would be comparatively easy for existing ACAP Parties, perhaps less so for other States. The workshop did not recommend this process.

#### **4.3 Develop a New Agreement or MoU for the smaller petrels**

As with 4.2, this would take much negotiation and would of necessity involve a much wider range of States than are Party to ACAP. It would also be odd having an Agreement for Albatrosses and Petrels and then negotiating another Agreement/MoU for petrels. The workshop did not recommend this process.

#### **4.4 Influence other agreements and international mechanisms**

The possibility of involving existing regional initiatives was considered such as the Secretariat of the Pacific Regional Environment Programme (SPREP: <https://www.sprep.org/>) for Oceania. SPREP (2009) has produced guidelines for managing invasive species within its area of interest.

The IUCN's Honolulu Challenge on Invasive Alien Species (emanating from the recent IUCN World Congress in Hawaii) <https://www.iucn.org/theme/species/our-work/invasive-species/honolulu-challenge-invasive-alien-species> has gathered together a large number of initiatives both by Governments and by NGOs such as Island Conservation and BirdLife International.

ACAP would need to assess how best to help and co-ordinate with such initiatives.

#### **4.5 Produce a Pterodroma and smaller petrel conservation handbook or similar**

ACAP at present has produced several guidelines and recommendations for land-based conservation actions for species currently on Annex 1 of the Agreement. These guides are often highly relevant to the conservation of smaller petrels, including gadflys. These guidelines are though not targeted towards smaller petrels and some need refreshing in the light of changing understanding and experience. The guidelines could be revisited to improve their relevance to gadfly and smaller petrels and then perhaps bought together in a portfolio form. Further guidelines on topics more specific to the smaller petrels might include collision/grounding, light attraction, and nest finding. These would make any portfolio more complete.

#### **4.6 Encourage expert groups interested in *Pterodromas* and other smaller petrels, and in land-based threats**

A *Pterodroma* specialist group was formed some years ago, but following a high point at the last World Seabird conference the group appears to be in abeyance. There are also groups such as the IUCN's invasive species specialist group. ACAP could develop further links and perhaps nurture these groups in order to ensure wider interest and availability of expertise.

ACAP's Advisory Committee might consider the idea of a (smaller) Petrel and Shearwater Working Group. This could be valuable for sharing information and providing technical advice perhaps also to non-ACAP Parties.

#### **ACKNOWLEDGEMENTS**

The contributions both those authoring and/or presenting papers at the workshop was greatly appreciated, as was the ACAP Secretariat for its support. John Copper was thanked for acting as rapporteur. The attendees were all thanked for giving up their Saturdays, especially those coming to their first ACAP related meeting.

#### **REFERENCES**

Pott, C. and Wiedenfeld, D.A. 2017. Information gaps limit our understanding of seabird bycatch in global fisheries. *Biological Conservation*, 210: 192-204 (including online supplementary material)

SPREP 2009. Guidelines for Invasive Species Management in the Pacific. A Pacific Strategy for Managing Pests, Weeds and other Invasive Species. Apoa: Secretariat of the Pacific Commission & Secretariat of the Pacific Regional Environment Programme. 20 pp.

[SPREP's members are American Samoa, Australia, Commonwealth of the Northern Mariana Islands, Cook Islands, Federated States of Micronesia, Fiji, France, French Polynesia, Guam, Kiribati, Marshall Islands, Nauru, New Caledonia, New Zealand, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, United Kingdom, United States of America, Vanuatu and Wallis and Futuna.]

#### **ATTENDEES**

Karen Baird, Barry Baker, Jonathon Barrington, Karen Bourgeois, Nigel Brothers, John Cooper, Igor Debski, Marco Favero, Elizabeth Flint, Rosemary Gales, Chris Gaskin, Elisa Goya, Caroline Icaza, Mi Ae Kim, Verónica López, Wiesława Misiak, Colin Miskelly, Tatiana Neves, Hannahrose Nevins, Patricia Pereira Serafini, Richard Phillips, James Russell, Paul Sagar, Mark Tasker, Graeme Taylor, Nathan Walker, Claire Wallis, Richard Wells, Barbara Wienecke, Anton Wolfaardt