



Agreement on the Conservation of Albatrosses and Petrels

Second Meeting of Advisory Committee

Brasilia, Brazil, 5 – 8 June 2006

**Choosing Candidate Species for Future Inclusion within
the Agreement on the Conservation of Albatrosses and
Petrels**

Author: Republic of South Africa / Australia

AC2 Doc 21
Agenda Item No 16

CHOOSING CANDIDATE SPECIES FOR FUTURE INCLUSION WITHIN THE AGREEMENT ON THE CONSERVATION OF ALBATROSSES AND PETRELS

John Cooper¹ & Barry Baker²

¹*Avian Demography Unit, Department of Statistical Sciences, University of Cape
Town, Rondebosch 7701, South Africa
(jcooper@adu.uct.ac.za)*

²*Australian Antarctic Division, Channel Highway, Kingston, Tasmania 7050,
Australia*

SUMMARY

A simple scoring system using seven criteria is developed to assess 128 members of the Order Procellariiformes for consideration as candidate species for inclusion within the Agreement on the Conservation of Albatrosses and Petrels. Two groups of birds appear as strong candidates: the three North Pacific albatrosses *Phoebastria* spp. and three Mediterranean shearwaters of the genera *Calonectris* and *Puffinus*. Four mainly southern hemisphere-breeding shearwaters *Puffinus* spp. and the Peruvian Diving Petrel *Pelecanoides garnotii*, all species which scored relatively highly, might also be considered as candidate species for listing.

INTRODUCTION

The Agreement on the Conservation of Albatrosses and Petrels (ACAP) is an international Agreement that aims to achieve and maintain a favourable conservation status for albatrosses and petrels. It was developed because of global concern over the parlous conservation status of albatrosses in particular, and the knowledge that highly migratory species that cross national boundaries require international efforts to conserve them.

ACAP entered into force in February 2004 and applies only to the species of albatrosses and petrels listed in Annex 1 to the Agreement. To date ACAP, is essentially a southern agreement, with only species breeding in the southern hemisphere being listed in this Annex. However, the Agreement text does not make any geographical restrictions, allowing for geographical expansion by the relatively simple expedient of adding new species of albatrosses and petrels to those already listed within it.

Theoretically, it appears possible to add any species to Annex 1, based on the definition of an albatross and petrel in Article I 2 a):

“Albatross” and/or “petrel” means one of any species, subspecies or population of the albatrosses and/or, as the case may be, petrels listed in Annex 1 to this Agreement;

However, it is clear from the Agreement’s title, preambular clauses and the scope, definitions and interpretation outlined in Article 1 that it was the intent of those drafting the Agreement to restrict the species covered to seabirds, and more specifically to members of the avian order Procellariiformes. Discussion at the Scientific Meeting that preceded ACAP’s First Session of the Meeting of Parties (ACAP Secretariat, 2004b) discussed possible changes to Annex 1 and noted that:

- changes to Annex 1 would require the development of appropriate criteria;
- the term “petrel” was not defined in the Agreement and noted a suggestion that it could include shearwaters;
- Cory’s Shearwater *Calonectris diomedea* was a potential candidate for inclusion on Annex 1; and
- there had been considerable discussion about including North Pacific albatrosses in ACAP Annex 1 during ACAP’s negotiation.

We have assumed that there is agreement amongst ACAP Parties that all members of the avian order Procellariiformes fall within the definition of “albatrosses and petrels” and hence are potential candidates for Annex 1. This means that storm petrels (family Hydrobatidae) and diving petrels (Pelecanoididae) may also be considered for inclusion, along with all the members of the families Procellariidae (petrels, fulmars, prions and shearwaters) and albatrosses (Diomedidae).

At its First Meeting of Parties, ACAP agreed to consider which new species might be added to Annex 1 in the future, and requested that a discussion paper on the subject be prepared for consideration by its Advisory Committee (Resolution 1.5, Annex 2 Work Programme for the Advisory Committee for 2005 to 2007; Anon. 2004a). Such a discussion paper should attempt to set out an objective procedure for selecting candidate species. At this meeting South Africa offered to take the lead in preparing the paper.

It is to be made clear that the procedure described and implemented below should only be used as an aid when considering proposals from Parties to ACAP to list new species. Such proposals would include a detailed justification, most likely covering several more criteria than the seven outlined below, and would take account of national priorities and reviews of the conservation status of candidate species (e.g. Barnes 2000, Garnett & Crowley 2000, Taylor 2000a,b, Baker *et al.* 2002). The main value of the current exercise is therefore seen as identifying from which groups of procellariiforms (in taxonomic, geographical and other terms) new proposals are likely to come, and to suggest a way of evaluating such proposals in a comparative manner.

THE PROCELLARIIFORMS

The taxonomy of the Procellariiformes is not settled (e.g. Robertson & Nunn 1998, Brooke 2004, Penhallurick & Wink 2004, Rheindt & Austin 2005). Especially for the

albatrosses there are conflicting views on the numbers of extant species, and ACAP's Advisory Committee has appointed a working group to consider which taxonomic treatment it should adopt for this family. Indeed, Annex 1 recognizes this confusion by using two different taxonomic treatments. In the light of this uncertainty, in this paper we follow the taxonomic treatment of Brooke (2004), which accords closely with that of BirdLife International in its consideration of the conservation status of the world's birds (BirdLife International 2004).

Brooke (2004) lists a total of 128 extant species of procellariiforms in four families, made up of 21 albatrosses, 81 petrels (*sensu lato*), 22 storm petrels and four diving petrels. Currently, following Brooke (2004), 18 species of albatrosses and seven species of petrels are listed within ACAP. The listed albatrosses include all the species within the family other than the three species of the genus *Phoebastria* that breed solely in the Northern Hemisphere. The seven petrels include all the species of the genera *Macronectes* (giant petrels) and *Procellaria* within the family Procellariidae. Thus no storm petrels or diving petrels are included, nor are any members of the several other genera of the family Procellariidae.

CHOOSING CRITERIA FOR SELECTING CANDIDATE ACAP SPECIES

A number of different criteria, other than purely taxonomic as considered above, could be used to select candidate species for inclusion within ACAP. These are considered briefly below.

Global conservation status

All procellariiforms have been assigned a category of threat by BirdLife International, following criteria adopted by the World Conservation Union (IUCN) (BirdLife International (2004). Sixty (47%) of the 128 living species have been classified as threatened, ranging from Critically Endangered (15 species), through Endangered (17 species) to Vulnerable (28 species). A further 14 species are considered to be Near Threatened. A threatened status suggests that the species might well benefit from being listed within an international agreement.

Listing within the Convention on Migratory Species

ACAP is a "daughter" agreement of the Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention, or CMS). This Agreement encourages international cooperative action to conserve and manage migratory species, and encourages its Parties to conclude Agreements on wild animals which periodically cross national jurisdictional boundaries. The listing of a species within the CMS is not a prerequisite for its inclusion within ACAP, but it does show that the Parties to the CMS have considered that some form of international action is desirable. Thus the several species of procellariiform seabirds currently listed on one or both of the two Appendices of the CMS that are not currently listed within ACAP warrant consideration as candidate species.

Rarity

The global populations of procellariiform seabirds vary in size greatly, from millions (e.g. several shearwaters *Puffinus* spp.) to a few tens (e.g. some gadfly petrels *Pterodroma* spp.). IUCN categories of threat are largely based on population trends, but given the huge ranges in population sizes that occur within the order, it is considered that rarity should also be a factor influencing the choice of candidate species.

Level of endemism

ACAP is an international agreement. Thus it seems reasonable that species should breed within at least two states to be considered as strong candidates. In other words, single-country endemic procellariiforms might be accorded a lower priority for ACAP listing. Although there are a number of several single-country endemic species already listed within ACAP, all face threats within international waters.

Migratory nature

Closely allied to the above criterion, procellariiforms are in the great main, highly pelagic species, undertaking often long migrations. This suggests most species will travel within the territorial and/or Exclusive Economic Zone (EEZ) waters of more than one individual state and also within international waters. A high level of migratory behaviour might then suggest inclusion within ACAP is warranted, since any conservation actions required will not be the sole responsibility of any one state.

Land-based threats

A number of procellariiform species face land-based threats at their breeding grounds, from such factors as alien species, pollution, disturbance and habitat loss. Such threats have been recognized by ACAP. It seems reasonable to consider that if similar land-based threats are faced by a species in more than one breeding range state, then its listing within ACAP might lead to an improvement in its conservation status, by, e.g., a transfer of expertise and by collaborative activities.

At-sea conservation threats

Lastly, the main driving force behind the negotiation and adoption of ACAP were the ongoing threats facing especially procellariiform seabirds within international waters from fishing, especially longlining (Anon., 2000). This is because it was realized that such threats could only be addressed through the combined actions of many states, breeding range and fishing nations alike. Thus a species severely affected by at-sea fishing might well be a good candidate for listing within ACAP.

APPLYING THE SELECTION CRITERIA

The approach that is taken has been to assess all 128 extant species of procellariiform seabirds against the above seven criteria, using a semi-quantified scale (e.g. IUCN status Critically Endangered = 4, Endangered = 3; Vulnerable = 2, Near-threatened = 1; and Not Threatened/Least Concern = 0; see Appendix 1 for details of the scoring method used). The individual scores have then been totalled for each species.

In order to provide a “marker” below which a score would suggest the species is not a priority candidate for ACAP listing, the same scoring system has been applied to the 25 species (*sensu* Brooke 2004) already listed within ACAP. An unlisted species scoring less than the lowest score of the listed species would be unlikely to be a priority candidate for listing. Conversely, those species scoring the same as, or more than, this “marker” could be considered suitable candidates for listing.

CANDIDATE SPECIES

Tables 1 and 2 list the scores obtained for all 128 procellariiform species considered. Scores for the 25 ACAP-listed species (asterisked) ranged from 16 to 24, with a mean of 20. Scores for non-listed species ranged from four to 20. Only nine non-listed species (range 16-21, mean 18) attained scores equal to or higher than the lowest score attained by a listed species. No unlisted species exceeded the highest score of a listed species, suggesting that the original suite of species selected for ACAP listing was indeed a good one.

These nine species may be regarded as candidate species for consideration for inclusion within ACAP. Notably they include the three remaining unlisted albatrosses (Short-tailed *P. albatrus*, Black-footed *P. nigripes* and Laysan *P. immutabilis*, all endemic to the North Pacific) and three shearwater species that breed mainly within the Mediterranean Sea (Cory’s *Calonectris diomedea*; Yelkouan *Puffinus yelkouan* and Balearic *P. mauretanicus*). The remaining candidate species are made up of two gadfly petrels, the Bermuda Petrel or Cahow *Pterodroma cahow* and the Phoenix Petrel *P. alba* (out of 33 *Pterodroma* species) and the Polynesian Storm Petrel *Nesofregatta fuliginosa*.

Species that closely approached the marker (i.e. scores of 14 or 15) include four shearwaters that mainly breed in the southern hemisphere and undergo trans-equatorial migrations (Wedge-tailed *P. pacificus*, Sooty Shearwater *P. griseus*, Pink-footed *P. creatopus* and Flesh-footed *P. carneipes*), the Northern or Arctic Fulmar *Fulmarus glacialis*, the Grey-backed Storm Petrel *Garrodia nereis*, seven gadfly petrels of the genera *Pterodroma* and *Pseudobulweria* (Table 1) and the Peruvian Diving Petrel *Pelecanoides garnotii*.

SIGNIFICANCE OF LISTING THE CANDIDATE SPECIES

North Pacific albatrosses

It is fair to say that ACAP, although not restricted geographically, has from its negotiation and inception been concentrated on albatrosses and petrels of the southern hemisphere, at least partially explaining why the North Pacific albatrosses were not included from the outset. Their inclusion does, however, appear warranted, at least based on the scoring exercise presented here. Inclusion will have far-reaching implications in terms of increasing the number of range states, and thus the potential membership of ACAP. Further, domestic and international efforts are already underway to address the conservation concerns of these species (e.g. COSEWIC

2003, USFWS 2005; and via the multinational North Pacific Albatross Working Group and the Short-tailed Albatross Recovery Team) so a consideration of their inclusion within ACAP should address how ACAP could “add value” to these existing efforts.

Mediterranean shearwaters

As far as it is known, no formal international efforts have as yet commenced to address the conservation of the three Mediterranean-breeding shearwaters as a single group although a call for international action in relation to longlining mortality has been made (Cooper *et al.* 2003). However, a Species Action Plan for the Critically Endangered Balearic Shearwater has been produced by BirdLife International on behalf of the European Commission (European Union 1999, Gallo-Orsi 2003, see also Oro *et al.* 2004). At its most recent meeting (the Eighth, held in 2005), the CMS called for concerted action to be taken by member states to improve the conservation status of this species, listing it on its Appendix I at the same meeting at the request of Spain (UNEP/CMS/Resolution 8.29; www.cms.int). Listing within ACAP seems to be one way that such action could be progressed, noting also that the species' single breeding-range state, Spain, is already an ACAP member.

Gadfly petrels

The Bermuda and Phoenix Petrels are species whose primary threats are land-based, and there is no evidence of at-sea threats affecting them, unlike all the ACAP-listed and other candidate species. Their consideration for listing within ACAP might thus be given a low priority, despite their relatively high scores.

Southern hemisphere shearwaters

Similar to the Mediterranean shearwaters, the four relatively high-scoring, primarily southern, shearwaters are known or are thought to be deleteriously affected by fishing activities (e.g. Baker & Wise (2005) for the Flesh-footed Shearwater). ACAP activities aimed at reducing at-sea mortality of listed species should also improve the conservation status of this group of southern shearwaters, suggesting their formal inclusion within ACAP should be considered. It is to be noted that the Pink-footed Shearwater has been listed within Appendix I of the CMS, following a proposal by Chile, and that conservation efforts have been proposed within its northern hemisphere non-breeding range (COSEWIC 2004, CEC 2005). However, these northern efforts are proceeding without the formal involvement of the species' two breeding range states, Chile and Peru, both who are signatories to ACAP. Although it did not score highly (10; Table 1) a fifth southern hemisphere trans-equatorial migrant, the Short-tailed Shearwater *P. tenuirostris*, fits well within this group.

Remaining candidate species

The remaining candidate species, including those closely approaching the “marker”, do not fall within any coherent group, so they may perhaps be considered as having a lower priority for inclusion within ACAP. For example, the abundant and non-

threatened Northern Fulmar might best be treated internationally (if necessary at all) through the Program for the Conservation of Arctic Flora and Fauna (CAFF) of the Arctic Council (Cooper *et al.* 2000). However, the Peruvian Diving Petrel, a CMS Appendix I-listed species, breeds only within Chile and Peru (who jointly proposed its CMS listing). As ACAP signatories these two countries might wish to consider progressing the species' conservation via the Agreement, and as a consequence propose its inclusion.

ACKNOWLEDGEMENTS

JC thanks P.G. Ryan for a helpful discussion on the scoring system used.

REFERENCES

- ACAP Secretariat. 2004a.** Agreement on the Conservation of Albatrosses and Petrels. Report of the First Session of the Meeting of the Parties (Hobart, Australia, 10 to 12 November 2004). Hobart: ACAP Secretariat. www.acap.aq
- ACAP Secretariat. 2004b.** Report of the Scientific Meeting. ACAP/MOP1/Doc.15. www.acap.aq
- Anon. 2000.** Report on a Meeting to discuss an Agreement on the Conservation of Southern Hemisphere Albatrosses and Petrels. ACSHAP1 Doc 1.13 Final. Unpublished report available from the ACAP Secretariat.
- Baker, G.B. & Wise, B.S. 2005.** The impact of pelagic longline fishing on the Flesh-footed Shearwater *Puffinus carneipes* in eastern Australia. *Biological Conservation* 126: 305-316.
- Baker, G.B., Gales, R., Hamilton, S. & Wilkinson, V. 2002.** Albatrosses and petrels in Australia: a review of their conservation and management. *Emu* 102: 71-97.
- Barnes, K.N. (Ed.) 2000.** The Eskom Red Data Book of birds of South Africa, Lesotho and Swaziland. Johannesburg: BirdLife South Africa.
- BirdLife International 2004.** Threatened birds of the World 2004. CD-ROM. Cambridge: BirdLife International.
- Brooke, M.[de L.] 2004.** Albatrosses and petrels across the World. Oxford: Oxford University Press.
- CEC 2005.** North American Conservation Action Plan Pink-footed Shearwater *Puffinus creatopus*. Montreal: Commission for Environmental Protection.
- Cooper, J., Baccetti, N., Belda, E.J., Borg, J.J., Oro, D., Papaconstantinou, C. & Sánchez, A. 2003.** Seabird mortality from longline fishing in the Mediterranean Sea and Macaronesian waters: a review and a way forward. In: Mínguez, E., Oro, D., de Juana, E & Martínez-Abraín, A. (Eds). Mediterranean seabirds and their conservation. *Scientia Marina* 67 (Supplement 2): 57-64.
- Cooper, J., Dunn, E., Kulka, D.W., Morgan, K.H. & Rivera, K.S. 2000.** Addressing the problem: seabird mortality from longline fisheries in the waters of Arctic countries. In: Chardine, J.W., Porter, J.M. & Wohl, K.D. (Eds). Workshop on Seabird Incidental Catch in the Waters of Arctic Countries. *CAFF Technical Report* No. 7: 9, 33-42,61-65.

- COSEWIC 2003.** COSEWIC assessment and status report on the Short-tailed Albatross *Phoebastria albatrus* in Canada. Ottawa: Committee on the Status of Endangered Wildlife in Canada.
- COSEWIC 2004.** COSEWIC assessment and status report on the Pink-footed Shearwater *Puffinus creatopus* in Canada. Ottawa: Committee on the Status of Endangered Wildlife in Canada.
- European Union 1999.** European Union Species Action Plan Balearic Shearwater (*Puffinus mauretanicus*). BirdLife International & European Commission.
- Gallo-Orsi, U. 2003.** Species Action Plans for the conservation of seabirds in the Mediterranean Sea: Audouin's Gull, Balearic Shearwater and Mediterranean Shag. In: Mínguez, E., Oro, D., de Juana, E & Martínez-Abraín, A. (Eds). Mediterranean seabirds and their conservation. *Scientia Marina* 67 (Supplement 2): 47-55.
- Garnett, S.T. & Crowley, G.M. 2000.** The action plan for Australian birds. Canberra: Environment Australia.
- Oro, D., Aguilar, J.S., Igual, J.M. & Louzao, M. 2004.** Modelling demography and extinction risk in the endangered Balearic Shearwater. *Biological Conservation* 116: 93-102.
- Penhallurick, J. & Wink, M. 2004.** Analysis of the taxonomy and nomenclature of the Procellariiformes based on complete nucleotide sequences of the mitochondrial cytochrome b gene. *Emu* 104: 125-147.
- Rheindt, F.E. & Austin, J.J. 2005.** Major analytical and conceptual shortcomings in a recent taxonomic revision of the Procellariiformes - a reply to Penhallurick and Wink (2004). *Emu* 105: 181-186.
- Robertson, C.J. & Nunn, G.B. 1998.** Towards a new taxonomy for albatrosses. In: Robertson, G. & Gales, R. (Eds). Albatross biology and conservation. Chipping Norton: Surrey Beatty & Sons. pp. 13-19.
- Taylor, G.A. 2000a.** Action plan for seabird conservation in New Zealand. *Threatened Species Occasional Publication* No 16: 1-233.
- Taylor, G.A. 2000b.** Action plan for seabird conservation in New Zealand. *Threatened Species Occasional Publication* No. 17: 236-435.
- USFWS 200x.** Short-tailed Albatross (*Phoebastria albatrus*) draft recovery plan. Anchorage: U.S. Fish and Wildlife Service.

APPENDIX ONE

SCORING SYSTEM FOR SELECTION CRITERIA FOR CANDIDATE ACAP SPECIES

Global conservation status

IUCN status of Critically Endangered (extremely high risk of extinction in the wild) = 4, Endangered (very high risk of extinction in the wild) = 3; Vulnerable (high risk of extinction in the wild) = 2, Near-threatened = 1; and Not Threatened/Least Concern/Data Deficient/not classified = 0.

Listing within the Convention on Migratory Species

Listing on either or both Appendices I and II with a subsequent call for concerted and/or collaborative action = 4; listing on both Appendices I and II = 3; Listing on Appendix I = 2, listing on Appendix II = 1; no listing within the CMS = 0.

Rarity

Global population less than 1000 annually breeding pairs = 4; global population between 1000 and 10 000 annually breeding pairs = 3; global population between 10 000 and 100 000 annually breeding pairs = 2; global population between 100 000 and one million annually breeding pairs = 1; global population over one million breeding pairs = 0. Global estimates do not exist for all species, for them a “guesstimate” has been made, based on a reading of Brooke (2004).

Level of endemism

Species breeds within more than four states = 4; species breeds within four states = 3; species breeds within three states = 2; species breed within two states = 1; species breeds within one state only = 0.

Migratory nature

Species occurs in territorial/EEZ waters of more than three states = 4; species occurs in territorial/EEZ waters of three states = 3; species occurs in territorial/EEZ waters of two states = 2; species occurs in only one state’s waters but also visits international waters = 1; species does not leave territorial/EEZ waters of a single state = 0.

Land-based threats

Species known to face severe land-based threats in two or more breedingrange states = 4; species known to face detectable land-based threats in two or more breeding-range states = 3; species known to face severe land-based threats in at least one breeding-range state = 2; species known to face detectable land-based threats in at least one breeding-range state = 1; no land-based threats have been identified = 0.

At-sea conservation threats

Species known to face severe threats in international waters and/or territorial/EEZ waters of at least two states = 4; species known to face a detectable level of threat in international waters and/or territorial/EEZ waters of at least two states = 3; species known to face a severe level of threat in international waters and/or territorial/EEZ waters of at least one state = 2; species known to face a detectable level of threat in international waters and/or territorial/EEZ waters of at least one state = 1; species not known to face at-sea threats = 0.

Table 1.a. Scores obtained using the scoring system developed in this paper to assess the suitability of 128 procellariiform species for inclusion on ACAP Annex 1, sorted by taxonomic order. Asterisks indicate species already listed on Annex 1.

Common name	Scientific name	IUCN status	CMS listing	Rarity	Endemism	Migratory	Land-based threats	At-sea threats	Total
Wandering Albatross*	<i>Diomedea exulans</i>	2	4	3	3	4	3	4	23
Antipodean Albatross*	<i>D. antipodensis</i>	2	4	2	0	3	1	4	16
Amsterdam Albatross*	<i>D. amsterdamensis</i>	4	4	4	0	1	2	2	17
Tristan Albatross*	<i>D. dabbenena</i>	3	4	3	0	4	2	4	20
Northern Royal Albatross*	<i>D. sanfordi</i>	3	4	3	0	4	1	4	19
Southern Royal Albatross*	<i>D. epomophora</i>	3	4	2	0	4	1	4	18
Waved Albatross*	<i>Phoebastria irrorata</i>	2	4	2	0	2	2	4	16
Short-tailed Albatross	<i>P. albatrus</i>	2	4	4	0	4	2	4	20
Black-footed Albatross	<i>P. nigripes</i>	3	4	2	1	4	3	4	21
Laysan Albatross	<i>P. immutabilis</i>	2	4	1	2	4	3	4	20
Black-browed Albatross*	<i>Thalassarche melanophrys</i>	3	4	1	4	4	3	4	23
Campbell Albatross*	<i>T. impavida</i>	3	4	2	0	2	1	4	16
Shy Albatross*	<i>T. cauta</i>	1	4	2	1	4	3	4	19
Chatham Albatross*	<i>T. eremita</i>	4	4	3	1	4	1	4	21
Salvin's Albatross*	<i>T. salvini</i>	2	4	2	2	4	3	4	21
Grey-headed Albatross*	<i>T. chrysostoma</i>	2	4	2	4	4	3	4	23
Atlantic Yellow-nosed Albatross*	<i>T. chlororhynchos</i>	3	4	2	0	4	1	4	18
Indian Yellow-nosed Albatross*	<i>T. carteri</i>	3	4	2	1	4	3	4	21
Buller's Albatross*	<i>T. bulleri</i>	2	4	2	0	4	1	4	19
Sooty Albatross*	<i>Phoebetria fusca</i>	3	4	2	2	4	3	4	22
Dark-mantled Sooty Albatross*	<i>P. palpebrata</i>	1	4	2	4	4	3	4	22
Southern Giant Petrel*	<i>Macronectes giganteus</i>	2	4	2	4	4	4	4	24
Northern Giant Petrel*	<i>M. halli</i>	1	4	2	4	4	3	4	22
Northern Fulmar	<i>Fulmarus glacialis</i>	0	0	0	4	4	3	4	15
Southern Fulmar	<i>Fulmarus glacialoides</i>	0	0	0	2	4	0	0	6
Antarctic Petrel	<i>Thalassoica antarctica</i>	0	0	0	0	4	0	0	4
Cape Petrel	<i>Daption capense</i>	0	0	0	4	4	3	1	12
Snow Petrel	<i>Pagodroma nivea</i>	0	0	0	3	3	0	0	6
Blue Petrel	<i>Halobaena caerulea</i>	0	0	0	4	4	4	0	12

Common name	Scientific name	IUCN status	CMS listing	Rarity	Endemism	Migratory	Land-based threats	At-sea threats	Total
Broad-billed Prion	<i>Pachyptila vittata</i>	0	0	0	2	4	4	0	10
Salvin's Prion	<i>Pachyptila salvini</i>	0	0	0	2	4	4	0	10
Antarctic Prion	<i>Pachyptila desolata</i>	0	0	0	4	4	4	0	12
Slender-billed Prion	<i>Pachyptila belcheri</i>	0	0	0	3	4	4	0	11
Fairy Prion	<i>Pachyptila turtur</i>	0	0	0	4	4	4	0	12
Fulmar Prion	<i>Pachyptila crassirostris</i>	0	0	1	1	2	2	0	6
Kerguelen Petrel	<i>Aphrodroma brevirostris</i>	0	0	1	2	4	4	0	9
Great-winged Petrel	<i>Pterodroma macroptera</i>	0	0	0	4	4	4	0	12
White-headed Petrel	<i>Pterodroma lessonii</i>	0	0	1	2	4	4	0	11
Atlantic Petrel	<i>Pterodroma incerta</i>	2	0	0	0	4	2	0	8
Providence Petrel	<i>Pterodroma solandri</i>	2	0	2	0	4	2	0	10
Magenta Petrel	<i>Pterodroma magentae</i>	4	0	4	0	1	2	0	11
Murphy's Petrel	<i>Pterodroma ultima</i>	1	0	1	1	4	3	0	10
Soft-plumaged Petrel	<i>Pterodroma mollis</i>	0	0	0	4	4	3	0	11
Zino's Petrel	<i>Pterodroma madeira</i>	4	0	4	0	1	2	0	11
Fea's Petrel	<i>Pterodroma feae</i>	1	0	4	1	4	4	0	14
Jamaica Petrel	<i>Pterodroma caribbaea</i>	4	0	4	0	2	2	0	12
Bermuda Petrel	<i>Pterodroma cahow</i>	3	2	4	0	3	2	2	16
Black-capped Petrel	<i>Pterodroma hasitata</i>	3	0	3	1	4	4	0	15
Juan Fernandez Petrel	<i>Pterodroma externa</i>	2	0	0	0	4	2	0	8
Kermadec Petrel	<i>Pterodroma neglecta</i>	0	0	2	4	4	4	0	14
Herald Petrel	<i>Pterodroma heraldica</i>	0	0	2	4	4	3	0	13
Trinidad Petrel	<i>Pterodroma arminjoniana</i>	2	0	3	1	3	3	0	12
Henderson Petrel	<i>Pterodroma atrata</i>	3	2	2	1	3	2	0	13
Phoenix Petrel	<i>Pterodroma alba</i>	2	0	3	3	4	4	0	16
Barau's Petrel	<i>Pterodroma barau</i>	3	0	3	0	4	2	0	12
Hawaiian Petrel	<i>Pterodroma sandwichensis</i>	2	2	3	0	4	2	0	13
Galapagos Petrel	<i>Pterodroma phaeopygia</i>	4	2	2	0	4	2	0	14
Mottled Petrel	<i>Pterodroma inexpectata</i>	1	0	0	0	4	2	0	7
White-necked Petrel	<i>Pterodroma cervicalis</i>	2	0	2	2	4	4	0	14
Black-winged Petrel	<i>Pterodroma nigripennis</i>	0	0	0	3	4	3	0	10
Chatham Petrel	<i>Pterodroma axillaris</i>	4	0	4	0	1	2	0	11
White-Necked Petrel	<i>Pterodroma cervicalis</i>	2	0	2	2	4	4	0	14

Common name	Scientific name	IUCN status	CMS listing	Rarity	Endemism	Migratory	Land-based threats	At-sea threats	Total
Bonin Petrel	<i>Pterodroma hypoleuca</i>	0	0	1	1	4	3	0	9
Gould's Petrel	<i>Pterodroma leucoptera</i>	2	0	3	2	4	4	0	15
Collared Petrel	<i>Pterodroma brevipes</i>	0	0	3	3	4	3	0	13
Cook's Petrel	<i>Pterodroma cookii</i>	3	0	2	0	4	2	0	11
De Filippi's Petrel	<i>Pterodroma defilippiana</i>	2	0	3	0	1	2	0	8
Stejneger's Petrel	<i>Pterodroma longirostris</i>	2	0	1	0	4	2	0	9
Pycroft's Petrel	<i>Pterodroma pycrofti</i>	3	0	3	0	4	2	0	12
Mascarene Petrel	<i>Pseudobulweria aterrima</i>	4	0	4	0	1	2	0	11
Beck's Petrel	<i>Pseudobulweria becki</i>	4	0	4	1	2	1	0	12
Tahiti Petrel	<i>Pseudobulweria rostrata</i>	1	0	3	4	4	3	0	15
Fiji Petrel	<i>Pseudobulweria macgillivrayi</i>	4	0	4	0	1	1	0	10
Grey Petrel*	<i>Procellaria cinerea</i>	1	4	1	4	4	4	4	22
White-chinned Petrel*	<i>Procellaria aequinoctialis</i>	2	4	0	3	4	4	4	21
Spectacled Petrel*	<i>Procellaria conspicillata</i>	4	4	3	0	4	0	4	19
Black Petrel*	<i>Procellaria parkinsoni</i>	2	4	3	0	4	2	4	19
Westland Petrel*	<i>Procellaria westlandica</i>	2	4	1	0	3	2	4	16
Streaked Shearwater	<i>Calonectris leucomelas</i>	0	0	0	3	4	1	0	8
Cory's Shearwater	<i>Calonectris diomedea</i>	0	0	1	4	4	4	3	16
Cape Verde Shearwater	<i>Calonectris edwardsii</i>	0	0	3	0	3	2	3	11
Christmas Shearwater	<i>Puffinus nativitatis</i>	0	0	2	4	4	3	0	13
Wedge-tailed Shearwater	<i>Puffinus pacificus</i>	0	0	0	4	4	4	3	15
Buller's Shearwater	<i>Puffinus bulleri</i>	0	0	1	0	4	2	0	7
Manx Shearwater	<i>Puffinus puffinus</i>	0	0	1	4	4	3	0	12
Yelkouan Shearwater	<i>Puffinus yelkouan</i>	0	0	2	4	4	3	3	16
Balearic Shearwater	<i>Puffinus mauretanicus</i>	4	4	3	0	4	2	3	20
Black-vented Shearwater	<i>Puffinus opisthomelas</i>	2	0	2	0	2	2	0	8
Newell's Shearwater	<i>Puffinus newelli</i>	3	0	2	1	3	2	0	11
Townsend's Shearwater	<i>Puffinus auricularis</i>	4	0	3	0	1	2	0	10
Fluttering Shearwater	<i>Puffinus gavia</i>	0	0	2	0	2	2	0	6
Hutton's Shearwater	<i>Puffinus huttoni</i>	3	0	1	0	2	2	1	9
Audubon's Shearwater	<i>Puffinus lherminieri</i>	0	0	1	4	4	3	0	12
Heinroth's Shearwater	<i>Puffinus heinrothi</i>	2	0	4	1	2	1	0	10
Little Shearwater	<i>Puffinus assimilis</i>	0	0	1	4	4	3	0	12

Common name	Scientific name	IUCN status	CMS listing	Rarity	Endemism	Migratory	Land-based threats	At-sea threats	Total
Sooty Shearwater	<i>Puffinus griseus</i>	0	0	0	3	4	3	4	14
Short-tailed Shearwater	<i>Puffinus tenuirostris</i>	0	0	0	0	4	2	4	10
Pink-footed Shearwater	<i>Puffinus creatopus</i>	2	2	2	0	4	2	3	15
Flesh-footed Shearwater	<i>Puffinus carneipes</i>	0	0	1	2	4	3	4	14
Great Shearwater	<i>Puffinus gravis</i>	0	0	0	0	4	1	3	8
Bulwer's Petrel	<i>Bulweria bulwerii</i>	0	0	1	4	4	3	0	12
Jouanin's Petrel	<i>Bulweria fallax</i>	0	0	2	0	4	1	0	7
Wilson's Storm Petrel	<i>Oceanites oceanicus</i>	0	0	0	4	4	3	0	11
New Zealand Storm Petrel	<i>Oceanites maorianus</i>	0	0	4	0	0	1	0	5
White-vented Storm Petrel	<i>Oceanites gracilis</i>	0	0	2	1	4	2	0	9
Grey-backed Storm Petrel	<i>Garrodia nereis</i>	0	0	2	4	4	4	0	14
White-faced Storm Petrel	<i>Pelagodroma marina</i>	0	0	0	4	4	3	0	11
White-bellied Storm Petrel	<i>Fregetta grallaria</i>	0	0	2	4	4	3	0	13
Black-bellied Storm Petrel	<i>Fregetta tropica</i>	0	0	2	4	4	3	0	13
Polynesian Storm Petrel	<i>Nesofregetta fuliginosa</i>	2	0	3	4	4	4	0	17
European Storm Petrel	<i>Hydrobates pelagicus</i>	0	0	1	4	4	3	0	12
Least Storm Petrel	<i>Oceanodroma microsoma</i>	0	0	1	0	4	1	0	6
Wedge-rumped Storm Petrel	<i>Oceanodroma tethys</i>	0	0	1	1	4	3	0	9
Band-rumped Storm Petrel	<i>Oceanodroma castro</i>	0	0	2	4	4	3	0	13
Swinhoe's Storm Petrel	<i>Oceanodroma monorhis</i>	0	0	2	3	4	3	0	12
Leach's Storm Petrel	<i>Oceanodroma leucorhoa</i>	0	0	0	4	4	3	0	11
Guadalupe Storm Petrel	<i>Oceanodroma macrodactyla</i>	4	0	4	0	2	2	0	12
Markham's Storm Petrel	<i>Oceanodroma markhami</i>	0	0	2	1	4	3	0	10
Tristram's Storm Petrel	<i>Oceanodroma tristrami</i>	1	0	3	1	3	4	0	12
Black Storm Petrel	<i>Oceanodroma melania</i>	0	0	1	1	4	3	0	9
Matsudaira's Storm Petrel	<i>Oceanodroma matsudairae</i>	0	0	2	0	4	1	0	7
Ashy Storm Petrel	<i>Oceanodroma homochroa</i>	1	0	3	1	2	4	0	11
Hornby's Storm Petrel	<i>Oceanodroma hornbyi</i>	0	0	3	1	3	1	0	8
Fork-tailed Storm Petrel	<i>Oceanodroma furcata</i>	0	0	0	3	4	4	0	11
Peruvian Diving Petrel	<i>Pelecanoides garnotii</i>	3	2	2	1	3	4	0	15
Magellanic Diving Petrel	<i>Pelecanoides magellani</i>	0	0	2	1	2	3	0	8
South Georgia Diving Petrel	<i>Pelecanoides georgicus</i>	0	0	0	0	4	4	0	12
Common Diving Petrel	<i>Pelecanoides urinatrix</i>	0	0	0	4	4	4	0	12

Table 1.b. Scores obtained using the scoring system developed in this paper to assess the suitability of 128 procellariiform species for inclusion on ACAP Annex 1, sorted by descending score. Asterisks indicate species already listed on Annex 1.

Common name	Scientific name	IUCN status	CMS listing	Rarity	Endemism	Migratory	Land-based threats	At-sea threats	Total
Southern Giant Petrel*	<i>Macronectes giganteus</i>	2	4	2	4	4	4	4	24
Wandering Albatross*	<i>Diomedea exulans</i>	2	4	3	3	4	3	4	23
Black-browed Albatross*	<i>Thalassarche melanophrys</i>	3	4	1	4	4	3	4	23
Grey-headed Albatross*	<i>T. chrysostoma</i>	2	4	2	4	4	3	4	23
Sooty Albatross*	<i>Phoebastria fusca</i>	3	4	2	2	4	3	4	22
Dark-mantled Sooty Albatross*	<i>P. palpebrata</i>	1	4	2	4	4	3	4	22
Northern Giant Petrel*	<i>M. halli</i>	1	4	2	4	4	3	4	22
Grey Petrel*	<i>Procellaria cinerea</i>	1	4	1	4	4	4	4	22
Black-footed Albatross	<i>P. nigripes</i>	3	4	2	1	4	3	4	21
Chatham Albatross*	<i>T. eremita</i>	4	4	3	1	4	1	4	21
Salvin's Albatross*	<i>T. salvini</i>	2	4	2	2	4	3	4	21
Indian Yellow-nosed Albatross*	<i>T. carteri</i>	3	4	2	1	4	3	4	21
White-chinned Petrel*	<i>Procellaria aequinoctialis</i>	2	4	0	3	4	4	4	21
Tristan Albatross*	<i>D. dabbenena</i>	3	4	3	0	4	2	4	20
Short-tailed Albatross	<i>P. albatrus</i>	2	4	4	0	4	2	4	20
Laysan Albatross	<i>P. immutabilis</i>	2	4	1	2	4	3	4	20
Balearic Shearwater	<i>Puffinus mauretanicus</i>	4	4	3	0	4	2	3	20
Northern Royal Albatross*	<i>D. sanfordi</i>	3	4	3	0	4	1	4	19
Shy Albatross*	<i>T. cauta</i>	1	4	2	1	4	3	4	19
Buller's Albatross*	<i>T. bulleri</i>	2	4	2	0	4	1	4	19
Spectacled Petrel*	<i>Procellaria conspicillata</i>	4	4	3	0	4	0	4	19
Black Petrel*	<i>Procellaria parkinsoni</i>	2	4	3	0	4	2	4	19
Southern Royal Albatross*	<i>D. epomophora</i>	3	4	2	0	4	1	4	18
Atlantic Yellow-nosed Albatross*	<i>T. chlororhynchos</i>	3	4	2	0	4	1	4	18
Amsterdam Albatross*	<i>D. amsterdamensis</i>	4	4	4	0	1	2	2	17
Polynesian Storm Petrel	<i>Nesofregetta fuliginosa</i>	2	0	3	4	4	4	0	17
Antipodean Albatross*	<i>D. antipodensis</i>	2	4	2	0	3	1	4	16
Waved Albatross*	<i>Phoebastria irrorata</i>	2	4	2	0	2	2	4	16
Campbell Albatross*	<i>T. impavida</i>	3	4	2	0	2	1	4	16

Common name	Scientific name	IUCN status	CMS listing	Rarity	Endemism	Migratory	Land-based threats	At-sea threats	Total
Bermuda Petrel	<i>Pterodroma cahow</i>	3	2	4	0	3	2	2	16
Phoenix Petrel	<i>Pterodroma alba</i>	2	0	3	3	4	4	0	16
Westland Petrel*	<i>Procellaria westlandica</i>	2	4	1	0	3	2	4	16
Cory's Shearwater	<i>Calonectris diomedea</i>	0	0	1	4	4	4	3	16
Yelkouan Shearwater	<i>Puffinus yelkouan</i>	0	0	2	4	4	3	3	16
Northern Fulmar	<i>Fulmarus glacialis</i>	0	0	0	4	4	3	4	15
Black-capped Petrel	<i>Pterodroma hasitata</i>	3	0	3	1	4	4	0	15
Gould's Petrel	<i>Pterodroma leucoptera</i>	2	0	3	2	4	4	0	15
Tahiti Petrel	<i>Pseudobulweria rostrata</i>	1	0	3	4	4	3	0	15
Wedge-tailed Shearwater	<i>Puffinus pacificus</i>	0	0	0	4	4	4	3	15
Pink-footed Shearwater	<i>Puffinus creatopus</i>	2	2	2	0	4	2	3	15
Peruvian Diving Petrel	<i>Pelecanoides garnotii</i>	3	2	2	1	3	4	0	15
Fea's Petrel	<i>Pterodroma feae</i>	1	0	4	1	4	4	0	14
Kermadec Petrel	<i>Pterodroma neglecta</i>	0	0	2	4	4	4	0	14
Galapagos Petrel	<i>Pterodroma phaeopygia</i>	4	2	2	0	4	2	0	14
White-necked Petrel	<i>Pterodroma cervicalis</i>	2	0	2	2	4	4	0	14
White-Necked Petrel	<i>Pterodroma cervicalis</i>	2	0	2	2	4	4	0	14
Sooty Shearwater	<i>Puffinus griseus</i>	0	0	0	3	4	3	4	14
Flesh-footed Shearwater	<i>Puffinus carneipes</i>	0	0	1	2	4	3	4	14
Grey-backed Storm Petrel	<i>Garrodia nereis</i>	0	0	2	4	4	4	0	14
Herald Petrel	<i>Pterodroma heraldica</i>	0	0	2	4	4	3	0	13
Henderson Petrel	<i>Pterodroma atrata</i>	3	2	2	1	3	2	0	13
Hawaiian Petrel	<i>Pterodroma sandwichensis</i>	2	2	3	0	4	2	0	13
Collared Petrel	<i>Pterodroma brevipes</i>	0	0	3	3	4	3	0	13
Christmas Shearwater	<i>Puffinus nativitatis</i>	0	0	2	4	4	3	0	13
White-bellied Storm Petrel	<i>Fregetta grallaria</i>	0	0	2	4	4	3	0	13
Black-bellied Storm Petrel	<i>Fregetta tropica</i>	0	0	2	4	4	3	0	13
Band-rumped Storm Petrel	<i>Oceanodroma castro</i>	0	0	2	4	4	3	0	13
Cape Petrel	<i>Daption capense</i>	0	0	0	4	4	3	1	12
Blue Petrel	<i>Halobaena caerulea</i>	0	0	0	4	4	4	0	12
Antarctic Prion	<i>Pachyptila desolata</i>	0	0	0	4	4	4	0	12
Fairy Prion	<i>Pachyptila turtur</i>	0	0	0	4	4	4	0	12
Great-winged Petrel	<i>Pterodroma macroptera</i>	0	0	0	4	4	4	0	12

Common name	Scientific name	IUCN status	CMS listing	Rarity	Endemism	Migratory	Land-based threats	At-sea threats	Total
Jamaica Petrel	<i>Pterodroma caribbaea</i>	4	0	4	0	2	2	0	12
Trinidad Petrel	<i>Pterodroma arminjoniana</i>	2	0	3	1	3	3	0	12
Barau's Petrel	<i>Pterodroma barau</i>	3	0	3	0	4	2	0	12
Pycroft's Petrel	<i>Pterodroma pycrofti</i>	3	0	3	0	4	2	0	12
Beck's Petrel	<i>Pseudobulweria becki</i>	4	0	4	1	2	1	0	12
Manx Shearwater	<i>Puffinus puffinus</i>	0	0	1	4	4	3	0	12
Audubon's Shearwater	<i>Puffinus lherminieri</i>	0	0	1	4	4	3	0	12
Little Shearwater	<i>Puffinus assimilis</i>	0	0	1	4	4	3	0	12
Bulwer's Petrel	<i>Bulweria bulwerii</i>	0	0	1	4	4	3	0	12
European Storm Petrel	<i>Hydrobates pelagicus</i>	0	0	1	4	4	3	0	12
Swinhoe's Storm Petrel	<i>Oceanodroma monorhis</i>	0	0	2	3	4	3	0	12
Guadalupe Storm Petrel	<i>Oceanodroma macrodactyla</i>	4	0	4	0	2	2	0	12
Tristram's Storm Petrel	<i>Oceanodroma tristrami</i>	1	0	3	1	3	4	0	12
South Georgia Diving Petrel	<i>Pelecanoides georgicus</i>	0	0	0	4	4	4	0	12
Common Diving Petrel	<i>Pelecanoides urinatrix</i>	0	0	0	4	4	4	0	12
Slender-billed Prion	<i>Pachyptila belcheri</i>	0	0	0	3	4	4	0	11
White-headed Petrel	<i>Pterodroma lessonii</i>	0	0	1	2	4	4	0	11
Magenta Petrel	<i>Pterodroma magentae</i>	4	0	4	0	1	2	0	11
Soft-plumaged Petrel	<i>Pterodroma mollis</i>	0	0	0	4	4	3	0	11
Zino's Petrel	<i>Pterodroma madeira</i>	4	0	4	0	1	2	0	11
Chatham Petrel	<i>Pterodroma axillaris</i>	4	0	4	0	1	2	0	11
Cook's Petrel	<i>Pterodroma cookii</i>	3	0	2	0	4	2	0	11
Mascarene Petrel	<i>Pseudibulweria aterrima</i>	4	0	4	0	1	2	0	11
Cape Verde Shearwater	<i>Calonectris edwardsii</i>	0	0	3	0	3	2	3	11
Newell's Shearwater	<i>Puffinus newelli</i>	3	0	2	1	3	2	0	11
Wilson's Storm Petrel	<i>Oceanites oceanicus</i>	0	0	0	4	4	3	0	11
White-faced Storm Petrel	<i>Pelagodroma marina</i>	0	0	0	4	4	3	0	11
Leach's Storm Petrel	<i>Oceanodroma leucorhoa</i>	0	0	0	4	4	3	0	11
Ashy Storm Petrel	<i>Oceanodroma homochroa</i>	1	0	3	1	2	4	0	11
Fork-tailed Storm Petrel	<i>Oceanodroma furcata</i>	0	0	0	3	4	4	0	11
Broad-billed Prion	<i>Pachyptila vittata</i>	0	0	0	2	4	4	0	10
Salvin's Prion	<i>Pachyptila salvini</i>	0	0	0	2	4	4	0	10
Providence Petrel	<i>Pterodroma solandri</i>	2	0	2	0	4	2	0	10

Common name	Scientific name	IUCN status	CMS listing	Rarity	Endemism	Migratory	Land-based threats	At-sea threats	Total
Murphy's Petrel	<i>Pterodroma ultima</i>	1	0	1	1	4	3	0	10
Black-winged Petrel	<i>Pterodroma nigripennis</i>	0	0	0	3	4	3	0	10
Fiji Petrel	<i>Pseudobulweria macgillivrayi</i>	4	0	4	0	1	1	0	10
Townsend's Shearwater	<i>Puffinus auricularis</i>	4	0	3	0	1	2	0	10
Heinroth's Shearwater	<i>Puffinus heinrothi</i>	2	0	4	1	2	1	0	10
Short-tailed Shearwater	<i>Puffinus tenuirostris</i>	0	0	0	0	4	2	4	10
Markham's Storm Petrel	<i>Oceanodroma markhami</i>	0	0	2	1	4	3	0	10
Kerguelen Petrel	<i>Aphrodroma brevirostris</i>	0	0	1	2	4	4	0	9
Bonin Petrel	<i>Pterodroma hypoleuca</i>	0	0	1	1	4	3	0	9
Stejneger's Petrel	<i>Pterodroma longirostris</i>	2	0	1	0	4	2	0	9
Hutton's Shearwater	<i>Puffinus huttoni</i>	3	0	1	0	2	2	1	9
White-vented Storm Petrel	<i>Oceanites gracilis</i>	0	0	2	1	4	2	0	9
Wedge-rumped Storm Petrel	<i>Oceanodroma tethys</i>	0	0	1	1	4	3	0	9
Black Storm Petrel	<i>Oceanodroma melania</i>	0	0	1	1	4	3	0	9
Atlantic Petrel	<i>Pterodroma incerta</i>	2	0	0	0	4	2	0	8
Juan Fernandez Petrel	<i>Pterodroma externa</i>	2	0	0	0	4	2	0	8
De Filippi's Petrel	<i>Pterodroma defilippiana</i>	2	0	3	0	1	2	0	8
Streaked Shearwater	<i>Calonectris leucomelas</i>	0	0	0	3	4	1	0	8
Black-vented Shearwater	<i>Puffinus opisthomelas</i>	2	0	2	0	2	2	0	8
Great Shearwater	<i>Puffinus gravis</i>	0	0	0	0	4	1	3	8
Hornby's Storm Petrel	<i>Oceanodroma hornbyi</i>	0	0	3	1	3	1	0	8
Magellanic Diving Petrel	<i>Pelecanoides magellani</i>	0	0	2	1	2	3	0	8
Mottled Petrel	<i>Pterodroma inexpectata</i>	1	0	0	0	4	2	0	7
Buller's Shearwater	<i>Puffinus bulleri</i>	0	0	1	0	4	2	0	7
Jouanin's Petrel	<i>Bulweria fallax</i>	0	0	2	0	4	1	0	7
Matsudaira's Storm Petrel	<i>Oceanodroma matsudairae</i>	0	0	2	0	4	1	0	7
Southern Fulmar	<i>Fulmarus glacialisoides</i>	0	0	0	2	4	0	0	6
Snow Petrel	<i>Pagodroma nivea</i>	0	0	0	3	3	0	0	6
Fulmar Prion	<i>Pachyptila crassirostris</i>	0	0	1	1	2	2	0	6
Fluttering Shearwater	<i>Puffinus gavia</i>	0	0	2	0	2	2	0	6
Least Storm Petrel	<i>Oceanodroma microsoma</i>	0	0	1	0	4	1	0	6
New Zealand Storm Petrel	<i>Oceanites maorianus</i>	0	0	4	0	0	1	0	5
Antarctic Petrel	<i>Thalassoica antarctica</i>	0	0	0	0	4	0	0	4

