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Proposal to List Southern Giant Petrel as a Specially Protected Species under Annex II

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Introduction

1. The origins of the designation of Specially Protected Species go back to III ATCM in 1964 at which the Agreed Measures for the Conservation of the Antarctic Flora and Fauna were adopted. Article VI paras 5–7 and Annex A indicate that any native mammals or birds listed in Annex A are considered "Specially Protected Species" and "shall be accorded special protection by Participating Governments". The paragraphs also indicate that permits are required for killing, wounding, capturing or molesting any of these species and such permits can only be issued for "compelling scientific reasons".

2. Neither in the drafting of the Agreed Measures, in the period up to the adoption of the Protocol, nor in their later incorporation into Annex II of the Protocol, was any attempt made to establish what criteria should be used for designating a Specially Protected Species nor what special protection should then be accorded to them by Parties. No species have been added to the original list accepted in 1964.

3. As part of the revision of Annex 2 the United Kingdom presented XXIII ATCM/WP24, which questioned how this category of special protection should be defined and managed. This resulted in the adoption of Resolution 2 (1999) which requested SCAR, in consultation with the Parties, CCAMLR and other expert bodies as appropriate, to examine the status of the species currently designated in Annex II Appendix A, with the assistance of IUCN, to determine the conservation status of native Antarctic fauna and flora and advise the CEP on which species should remain or be designated as Specially Protected Species.

4. At XXIII ATCM an Intersessional Contact Group, chaired by Argentina, was established to discuss the criteria that could be used to designate Specially Protected Species. This ICG reported initially at CEP IV through XXIV ATCM/WP5.

5. The Final ICG report was presented as XXV ATCM/ WP8. The advice to the ATCM was encapsulated in Resolution 1 (2002) which noted that the CEP had decided to adopt the IUCN criteria on endangerment to establish the degree of threat to species, requested SCAR to assist in reviewing those species which were classed as "vulnerable", "endangered" or "critically endangered" (taking into consideration regional differences in status), as well as reviewing those species classed as "data deficient" or "near threatened" which occurred in the Antarctic Treaty Area.

6. SCAR agreed to begin this process and suggested that it would first assess the species for which there were already extensive data. Working Paper XXVIII ATCM WP34 proposed how the IUCN criteria could be applied to Antarctic bird species and provided a classification of threat for endangered bird species. The paper then suggested a procedure and provided a format, using data for the Southern Giant Petrel as an example, for the process by which future proposals could be made to the Committee for Environmental Protection for listing species as Specially Protected Species.

Setting the Criteria

7. The CEP had already discussed the application of the IUCN endangerment criteria and had accepted that they provide a useful framework in which to consider threats to Antarctic species. The full current listing of the criteria is provided as Annex 1.

8. The IUCN criteria are well-established, universally recognized and applied, and have been in use for a sufficient time to validate their usefulness and applicability. However, the application of the criteria at regional scales is less well-developed and tested at present and SCAR therefore proposed that regional concerns for any group should only be addressed after the criteria have been applied for globally threatened species.

9. The IUCN Red List has three categories for species considered to have a high to extremely high risk of extinction ("threatened" species) – Critically Endangered, Endangered and Vulnerable. A fourth

category – Near Threatened – applies to species close to qualifying as threatened in the near future. It is unlikely that many Antarctic species will meet the global criteria for Critically Endangered or Endangered status within the Treaty area, although some species may meet regional criteria. On conservation grounds, it is considered appropriate to be able to designate species in all three threatened categories (Critically Endangered, Endangered and Vulnerable) as Specially Protected Species. This would provide an effective framework for developing and implementing management plans to improve the status of all threatened Antarctic species. It may also be appropriate to establish monitoring schemes for those species evaluated as Near Threatened in order to provide early warning of possible worsening conservation status.

10. SCAR considers that, at least at present, the Specially Protected Species category should be applied for the whole Antarctic population of any species. If some populations of some species not endangered at a global level show regional decreases within the Antarctic, protection may well be achievable by practical local means instead of designation as a Specially Protected Species.

11. Designating Specially Protected Species in cases where not enough information is available (the precautionary approach applied for Data Deficient species) is not considered appropriate at the moment. Concern for these species should initially trigger new efforts to obtain the necessary information on the distribution, abundance, and where possible, trends in extent and population, upon which an informed judgement can be based through the application of the IUCN criteria. The regular review of all Antarctic bird species will provide a timely indication of which species are in need of urgent study.

12. Considering the present level of agreement on the extent of the revision of Annex II acceptable to all Parties, SCAR suggests that the Specially Protected Species status should be available for all species covered by Annex II, including those migratory species that visit the Antarctic Treaty Area on a seasonal or annual basis. This would appear to be within the common ground established at previous meetings of the CEP and provides for links with associated and dependent ecosystems outside the Treaty Area.

Procedure for proposal of a species for Special Protection

13. SCAR is continuing to build databases on the distribution, populations and ecological characterisation of species found not only in the Treaty and CCAMLR areas but associated and dependent ecosystems farther north. In many cases these data can already be linked with databases held elsewhere to provide global summaries for species. It is assumed that all these available data will be used to assess the degree of endangerment.

14. General agreement is needed first on the grounds for exclusion of any group of organisms or particular species from this designation. Such grounds could include the application of existing legislation outside the ATS, restriction of the designation only to those species breeding south of 60°S, etc. As suggested above it would appear that migratory species and those that use the Antarctic Treaty Area for substantive foraging could be included under a recognition of their importance in associated and dependent ecosystems.

15. In the discussions at CEP VII a range of suggestions were made on how to regularise the proposals for listing and de-listing. The IUCN criteria used worldwide to identify species in need of special protection have been considered in detail at previous meetings. For the purposes of assessing the degree of threat or endangerment for any species four characteristics are critical:

    a. How large is the population and is it, either globally or regionally, increasing, stable or decreasing?

    b. Is the geographic spread increasing, stable or decreasing?

    c. Is the breeding population sufficient to ensure breeding success each year (for an annual breeder)?

    d. Are there any known threats to the stability of the population?

16. SCAR has used the format agreed at that meeting to address the listing of the most endangered bird species from the Antarctic Treaty Area, the Southern Giant Petrel. The key questions in the assessment process agreed are answered in the following paragraphs with detailed data supplied in Appendix 1.

17. *Based on the application of IUCN global criteria is the species currently on the Red List?* **Yes. Southern Giant Petrels are globally listed as Vulnerable by BirdLife International.**

18. *Based on the IUCN criteria does the conservation status indicate a significant risk of extinction? E.g. is the conservation status "vulnerable" or higher?* **Data in Appendix 1**. **Yes.**

19. *Does the proposal involve a species of interest to other authorities or organisations (e.g. sea birds) in regard to active protection?*

    Yes. Southern Giant Petrel is already under consideration by ACAP as an endangered species. It has also been designated for special protection in those areas covered by Australian law.

Recommendation

20. SCAR recommends that Southern Giant petrel be considered for designation as a Specially Protected Species. Any such designation should be congruent with decisions taken by ACAP on this species.

21. In accordance with discussions at CEP VIII and Annex 8 of that report such a listing would require the preparation of a Protection Action Plan (guideline template provided in Annex 8) to allow all Parties to agree on what actions were necessary to conserve the species and assist in the recovery of its threatened populations.

22. A very similar management plan already exists for this species, drawn up by Australia for its subantarctic territories. It is recommended that this provide an initial basis for the development of a draft for the Treaty area.

23. SCAR should provide periodic reports on Specially Protected Species to allow the CEP to judge the success of the Protection Action Plan.

Appendix 1
Data for the Southern Giant Petrel

Species: *Macronectes giganteus* (Southern Giant Petrel)

Species characteristics: The Southern Giant Petrel *Macronectes giganteus*, is a large seabird of body length 85–100cm and wingspan 150–210cm. The species is sexually dimorphic, with males larger than females. Within populations, two colour morphs occur: the most common is the dark morph with a white head and neck, and a dark grey-brown body; and a white morph with scattered black feathers.

Distribution: The Southern Giant Petrel has a circumpolar oceanic range from Antarctica to approximately 20°S.

Habitat: Over summer, the species nests in colonies amongst open vegetation on Antarctic and subantarctic islands. Nests on the Antarctic continent are composed of pebbles. A single chick is raised and although breeding occurs annually, approximately 30% of the potential breeding population does not nest annually.

Role of species in ecosystem: The Southern Giant Petrel is an opportunistic scavenger and predator. The species regularly attends fishing vessels and scavenges animal carcasses on land. Southern Giant Petrels are also an active predator of cephalopods and euphausiids, as well as smaller birds (particularly penguins and petrels) both on land and at sea.

Status and trends

Habitat trends: There are no data available to indicate a reduction in available nesting habitat on the subantarctic islands and the Antarctic Peninsula and Continent.

Population size and trends: The current global population of Southern Giant Petrels was recently estimated to be 29,385 breeding pairs (BirdLife International 2004). This estimate represents a population reduction of approximately 23% from a previous estimate of 38,000 pairs (Hunter 1985). An incomplete census was undertaken of the Falkland Islands/Islas Malvinas during 2004/05. This survey located a higher number of breeding Southern Giant Petrels than previously recorded. However, as not all colonies were visited, it is presently unclear if the recent numbers represent a greater breeding population, or an artefact from the greater survey effort in 2004/05 compared with previous surveys.

Regional Population Estimates, and Breeding Population Trends for Southern Giant Petrels

Region	Estimated breeding population (pairs)	Trend(s)
Indian Ocean islands*	9500	Stable or Decreasing
Antarctic Continent	270-280	Recovering after decreases
Southern Antarctic Peninsula	1300	Stable
South Shetland Is	4500	Decreasing
Elephant & Seal Is	875	Insufficient data

South Orkney Is (includes Signy & Laurie Is)	2200	Decreasing at some localities
South Sandwich Is	1550	Insufficient data
South Georgia	4650	Decreasing
Falkland Is / Islas Malvinas	3200**	Decreasing?**
South America	1350	Increasing?
South Atlantic Ocean (includes Tristan da Cunha and Gough I)	50	Decreasing
TOTAL	**29,385**	**Decreasing**

* Includes Bouvet, Marion & Prince Edward Is, Iles Crozet, Heard & McDonald Is, Iles Kerguelen and Macquarie Is

** Total breeding population maybe greater than this estimate, and trend(s) in this region may need to be re-assessed when recent survey data are published.

Threats: A significant threat to Southern Giant Petrels is mortality via long-line fishing. 'Incidental catch (or by-catch) of seabirds during oceanic long-line fishing operations' is an increasingly important source of loss in many Southern Ocean bird populations. On some of their breeding islands, Southern Giant Petrels are threatened by predation from Feral Cats and Black Rats, and by habitat degradation from introduced Reindeer, Sheep and Rabbits. Human disturbance, both from tourism, science and logistic operations also results in breeding failure. Environmental changes potentially exacerbate the impact of threats to the Southern Giant Petrel. A recent southerly shift in the Antarctic Polar Frontal Zone has resulted in increased sea and air temperatures and may have altered up-welling patterns and hence marine prey availability (Patterson *et al*., in press.).

References

BirdLife International (2004) *State of the world's birds 2004: indicators for our changing world*. Cambridge, UK: BirdLife International.

Hunter,S. (1985) The role of the Giant Petrels in the Southern Ocean ecosystem. In '*Antarctic Nutrient Cycles and Food Webs*'. (Eds W.R. Siegfried, P.R. Condy and R.M. Laws.) pp. 534-542. Springer-Verlag: Berlin.

Patterson, D.L., Woehler, E.J., Croxall, J.P., Poncet, S. and Fraser, W.R. (in press). Breeding distribution and population status of the Northern Giant Petrel (*Macronectes halli*) and the Southern Giant Petrel (*M. giganteus*). *Marine Ornithology.*

ANNEX 1
Summary of the five criteria (A-E) used to evaluate if a species belongs in a category of threat (Critically Endangered, Endangered or Vulnerable).

Use any of the criteria A-E	**Critically Endangered**	**Endangered**	**Vulnerable**
A. Population reduction	Declines measured over the longer of 10 years or 3 generations		
A1	_ 90%	_ 70%	_ 50%
A2, A3 & A4	_ 80%	_ 50%	_ 30%

Al. Population reduction observed, estimated, inferred, or suspected in the past where the causes of the reduction are clearly reversible **AND** understood **AND** have ceased, based on and specifying any of the following:

(a) direct observation

(b) an index of abundance appropriate to the taxon

(c) a decline in AOO, EOO and/or habitat quality

(d) actual or potential levels of exploitation

(e) effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites.

A2. Population reduction observed, estimated, inferred, or suspected in the past where the causes of reduction may not have ceased **OR** may not be understood **OR** may not be reversible, based on (a) to (e) under Al

A3. Population reduction projected or suspected to be met in the future (up to a maximum of 100 years) based on (b) to (e) under Al.

A4. An observed, estimated, inferred, projected or suspected population reduction (up to a maximum of 100 years) where the time period must include both the past and the future, and where the causes of reduction may not have ceased **OR** may not be understood **OR** may not be reversible, based on (a) to (e) under Al.

B. Geographic range in the form of either B1 (extent or occurrence) AND/OR B2 (area or occupancy)			
B1. Extent of occurrence	< 100 km_	< 5,000 km_	< 20,000 km_
B2. Area of occupancy	< 10 km_	< 500 km_	< 2,000 km_
AND at least 2 of the following:			
a (i) Severely fragmented **AND/OR** (ii) # locations	= 1	≤ 5	≤ 10

b Continuing decline in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) area, extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals

c Extreme fluctuations in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations; (iv) number of mature individuals

C. Small population size and decline			
Number of mature individuals	< 250	< 2,500	< 10,000
AND either C1 or C2:			
C1. An estimated continuing decline of at least: (up to a maximum of 100 years)	25% in 3 years or 1 generation	20% in 5 years or 2 generations	10% in 10 years or 3 generations
C2. A continuing decline **AND** (a) and/or (b):			
a (i) # mature individuals in each subpopulation:	< 50	< 250	< 1,000
a (ii) or % individuals in one subpopulation at least	90%	95%	100%
b extreme fluctuations in the number of mature individuals			
D. Very small or restricted population			
Either:			
D1. number of mature individuals	≤ 50	≤ 250	≤ 1,000
AND/OR			
D2. restricted area of occupancy	na	na	AOO < 20 km_ or # locations ≤ 5
E. Quantitative Analysis			
Indicating the probability of extinction in the wild to be:	_ 50% in 10 years or 3 generations (100 years max)	_ 20% in 20 years or 5 generations (100 years max)	_ 10% in 100 years