

PROPOSAL FOR INCLUSION OF SPECIES ON THE APPENDICES OF THE CONVENTION ON THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

A. PROPOSAL: Listing of the Northern Giant Petrel *Macronectes halli* (entire population) in **Appendix II** of the Convention on the Conservation of Migratory Species of Wild Animals.

B. PROPONENT: **Republic of South Africa**

C. SUPPORTING STATEMENT

1. Taxon

1.1	Class	Aves
1.2	Order	Procellariiformes
1.3	Family	Procellariidae
1.4	Genus & Species	<i>Macronectes halli</i> (Mathews, 1912)
1.5	Common names	English: Northern Giant Petrel, Hall's Giant Petrel, Northern Giant Fulmar French: Fulmar de Hall German: Hallsturmvogel Spanish: Abanto-marino Subantártico

2. Biological data

2.1 Distribution

Circumpolar pelagic range in the Southern Ocean, mainly in sub-Antarctic waters. Breeding range between 46-54°S, mostly on sub-Antarctic islands situated north of the Antarctic Polar Front (Table 1). Historical distribution not known to have differed from current.

2.2 Population

In the mid-1980s there were an estimated 8 600 breeding pairs occurring globally. More recently (1990s, when regular censuses at many breeding sites have been conducted), a global breeding population of 11 519 pairs has been estimated (Table 1). This corresponds to an increase of 2.6% per annum since the mid-1980s. Marked increases have occurred at Macquarie (Australia, since the mid-1970s), Marion (Prince Edwards, South Africa) and Bird (South Georgia, UK) Islands, but the Iles Crozet (France) population is decreasing.

Table 1. Breeding distribution and numbers (nests) of Northern Giant Petrels *Macronectes halli*

Locality	Administrative authority	Nature reserve	Year(s)	Population
Marion Island	South Africa	Yes	1997	453
Prince Edward Island	South Africa	Yes	1990	180
Ile de la Possession	France	No	1994	306
Iles Crozet (other islands)	France	Yes	1981	755
Iles Kerguelen	France	Yes (part)	1985	1400
Macquarie Island	Australia	Yes	1996	1281
Stewart Island	New Zealand	No	1960	Breeding unconfirmed

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Chatham Islands	New Zealand	No	?	2150
Auckland Islands	New Zealand	Yes	1972	100
Campbell Islands	New Zealand	Yes	?	150
Antipodes Island	New Zealand	Yes	1978	300
Bird Island	United Kingdom	No	1995	2062
South Georgia	United Kingdom	No	1978	2500

2.3 Habitat

Marine and terrestrial. Seal and penguin colonies frequented on land, especially by male birds, whereas females spend more time at sea. Generally the species is linked more to seal and penguin abundance than is the congeneric Southern Giant Petrel *M. giganteus*, which relies more on a variety of dispersed pelagic prey. At sea, range extends from sub-Antarctic to sub-tropical (in austral winter-spring) and Antarctic (south-western Indian Ocean, Prydz Bay region, Drake Passage and area west of Antarctic Peninsula) latitudes. Frequents both coastal (often juvenile birds) and pelagic waters, frequently scavenging behind ships and common at trawling grounds. Nests earlier than does the Southern Giant Petrel, solitary or semi-colonial, in broken terrain behind sheltering rocks, ridges, lee of banks, vegetation clumps and overhangs.

2.4 Migrations

Poorly understood. Rates of recoveries of banded birds are lower than for Southern Giant Petrels. Adults appear to be more resident at breeding colonies throughout the year than the Southern Giant Petrel. Juveniles and pre-breeders highly migratory. Fledglings depart natal colonies late January - March, and most move progressively eastward, following prevailing westerly winds. Appears to favour a narrower latitudinal band than does the Southern Giant Petrel with no recoveries south of 50°S, and recoveries in more temperate waters typically of the Southern Giant Petrel. The majority of recoveries of juveniles is from Australasian, Pacific and South American (west coast) waters. Mean distance between banding and recovery sites of juveniles is *c.* 8 000 km. Movements of pre-breeding birds after first year little known, because recovery rates are very low, but a largely pelagic existence with some birds visiting non-natal colonies probably the case. Adults may remain close (*c.* 200 km at South Georgia) to breeding colonies during the breeding season.

3. Threat data

3.1 Direct threats

The main threat is from incidental mortality of migratory juvenile and pre-breeding birds, and breeding adult birds, from commercial longline fishing activities, from alighting on and swallowing baited hooks (see below) and being shot to prevent bait-stealing. Other threats include entanglement in marine debris and fishing gear from other fisheries; human disturbance at breeding colonies; predation from alien vertebrates, e.g. feral cats *Felis catus* and rats *Rattus* spp., on eggs and possibly chicks.

3.2 Habitat destruction

Habitat degradation from introduced mammals (e.g. domestic sheep *Ovis aries* and European Rabbits *Oryctolagus cuniculus*) at some breeding islands may have contributed to population decreases.

3.3 Indirect threats

At sea, ingestion of plastic pollutants, hooks and other fishing gear, and their regurgitation to chicks; accumulation of chemical contaminants; fluctuations in numbers of important prey species - seals and penguins; oceanographic change.

3.4 Threats connected especially with migrations

Taken together, both Northern and Southern Giant Petrels are caught by longline tuna *Thunnus* spp. vessels in waters off southern Africa at a minimum rate of 0.024 birds per 1000 hooks set (but this estimate based on <2% of total effort), and off Australasia at 0.008 birds per 1000 hooks. Off southern Africa, interviewed captains of tuna longline vessels have reported 'frequent' captures of giant petrels (species unidentified) on longlines.

In longline fisheries for Patagonian Toothfish *Dissostichus eleginoides* at the Prince Edward Islands, in 1996/97 0.011 giant petrels were caught per 1000 hooks set, and in 1997-98 0.004 birds per 1000 hooks. The rate in 1996/97 corresponded to an estimated annual 'harvest' of c. 6% (58 birds) of the total breeding population of Northern Giant Petrels at the Prince Edward islands. This contrasts to a (single) survey at Isles Kerguelen (France) in 1994 where no giant petrels were captured.

Based on recoveries of banded birds, roughly 10% of reported juvenile mortality of giant petrels is attributable to interactions with fisheries. Over the period 1980/81–1992/93 at-sea surveys have shown a 98% decrease in abundance of Northern Giant Petrels at sea in the Prydz Bay region, Antarctica, possibly as a consequence of interactions with fisheries. The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) has estimated that, in the unregulated longline fishery in the Convention Area in 1998, 2000–4000 giant petrels of both species were caught. This rate of bycatch equates to 10–20% of the breeding populations of giant petrels in CCAMLR Subareas 58.6, 58.7 and Divisions 58.5.1 and 58.5.2, and is considered to be unsustainable by CCAMLR. Expansion of longline fisheries into new areas of the Southern Ocean and the targeting of new species is cause for concern that rates of incidental capture will continue to be unacceptably high.

3.5 National and international utilization

Subsistence utilization has been documented, but is unlikely currently to constitute a major threat. Giant petrels, together with other conspicuous sub-Antarctic and Antarctic wildlife, collectively support a burgeoning interest in Southern Ocean tourism.

4. Protection status and needs

4.1 National protection status

Australian, some French, southern New Zealand and South African breeding islands are formally protected as nature reserves (Table 1). Australian, southern New Zealand and South African breeding islands have current management plans that control human activities. Australia has accorded the species a Vulnerable status in its Action Plan for Australian Birds. Accorded Near-Threatened status in the current update of the South African Red Data Book.

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4.2 International protection status

Australian and southern New Zealand breeding islands are inscribed as natural properties on the World Heritage List of the Convention Concerning the Protection of the World Cultural and Natural Heritage. Not listed by CITES. CCAMLR regulations aim to reduce deaths from the Patagonian Toothfish longline fishery. Included in *Birds to Watch 2* (1994) and in its current revision as Near-Threatened.

4.3 Additional protection needs

Inclusion in Appendix II of the Bonn Convention and within a range-state Agreement for Southern Ocean seabirds at risk from longline fisheries. Inclusion within National Plans to be produced by longline fishing range states as part of the Food and Agriculture Organization of the United Nations' International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries. Unregulated fishing for Patagonian Toothfish needs to be halted and CCAMLR regulations strictly enforced. All formally unprotected breeding localities require nature reserve status and management plans which strictly control human disturbance from logistical, scientific and tourist activities. The paucity of information on migration and movements of birds requires urgent attention.

5. Range States^a

Angola (M, *Macronectes* sp.), Argentina (M), Australia (B), Chile (M), France (B), Namibia (M), New Zealand (B), Norway (Bouvet Island, M), South Africa (B), United Kingdom (B), possible vagrant at Midway Atoll (USA, identified as *Macronectes* spp. but most likely Southern Giant Petrel).

^aB = breeding range, M = occurs solely as a migrant.

6. Additional remarks

Northern and Southern Giant Petrels were regarded until 1966 as a single species, the Giant Petrel *Macronectes giganteus*. This, inadequate censuses at some breeding localities, and difficulties in separating the two forms at sea, has complicated the historical record on population trends and recording of fisheries mortality, with many observers combining the two forms into a generic *Macronectes* category. Population trends should be treated with some caution, therefore. Where sufficient data exist, however, longline mortality is most frequently cited as the principle cause of population decreases, and increasing Antarctic Fur Seal *Arctocephalus gazella* abundance as the cause of population increases. Both Northern and Southern Giant Petrels are particularly sensitive to human disturbance when breeding, leading at times to complete colony failures.

7. References

- Bourne, W.R.P. & J. Warham. 1966. Geographical variation in the giant petrels of the genus *Macronectes*. *Ardea* 54: 45-67.
- Brooke, R.K. 1984. South African Red Data Book - Birds. *South African National Scientific Programmes Report* 97: 1-213.
- Brothers, N.P., Cooper, J. & S. Løkkeborg. 1998. The incidental catch of seabirds by longline fisheries: world-wide review and technical guidelines for mitigation. *FAO Fisheries Circular* 937: 1-99 (preliminary version).
- CCAMLR. 1998. Report on the Working Group on Fish Stock Assessment. Hobart, Australia: 12-22 October 1998. SC-CAMLR-XVII/4.

- Collar, N.J., Crosby, M.J. & A.J. Stattersfield. 1994. *Birds to watch 2. The World list of threatened Birds*. Birdlife International Conservation Series 4. Cambridge: Birdlife International.
- Cherel, Y., Weimerskirch, H. & G. Duhamel. 1996. Interactions between longline vessels and seabirds in Kerguelen waters and a method to reduce seabird mortality. *Biological Conservation* 75: 63-70.
- Del Hoyo, J., Elliott, A. & J. Sargatal (Eds). 1992. *Handbook of the birds of the World. Vol. 1. Ostrich to ducks*. Barcelona: Lynx Editions.
- Dingwall, P.R. (Ed.). 1995. *Progress in conservation of the Subantarctic islands*. Gland and Cambridge: IUCN.
- FAO 1998. Consultation on the Management of Fishing Capacity, Shark Fisheries and Incidental Catch of Seabirds in Longline Fisheries. Rome, 26-30 October 1998. International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries. FI:CSS/98/4. Rome: Food and Agriculture Organization of the United Nations.
- Harrison, P. 1983. *Seabirds an identification guide*. Beckenham: Croom Helm.
- Hayes, E.A. 1997. *A review of the Southern Bluefin Tuna fishery: implications for ecologically sustainable management*. Sydney: TRAFFIC.
- Hunter, S. 1983. The food and feeding ecology of the giant petrels *Macronectes halli* and *M. giganteus* at South Georgia. *Journal of Zoology, London* 200: 521-538.
- Hunter, S. 1984a. Breeding biology and population dynamics of giant petrels *Macronectes* at South Georgia (Aves: Procellariiformes). *Journal of Zoology, London* 203: 441-460.
- Hunter, S. 1984b. Movements of giant petrels *Macronectes* spp. ringed at South Georgia. *Ringing and Migration* 5: 105-112.
- Hunter, S. 1985. The role of giant petrels in the Southern Ocean ecosystem. In: Siegfried, W.R., Condy, P.R. & Laws, R.M. (Eds). *Antarctic nutrient cycles and food webs*. Berlin: Springer-Verlag. pp. 534-542.
- Hunter, S. & M.deL. Brooke. 1992. Diet of giant petrels *Macronectes* spp. at Marion Island, southern Indian Ocean. *Colonial Waterbirds* 15: 56-65.
- Huysen, O.A.W., Brooke, M.deL., Burger, A.E., Cooper, J., Crawford, R.J.M., Hunter, S., Nel, D.C. & A.J. Williams. ms. Breeding biology and conservation of giant petrels *Macronectes* at sub-Antarctic Marion Island.
- Jouventin, P., Stahl, J.-C., Weimerskirch, H. & J.-L. Mougins. 1984. The seabirds of the French subantarctic islands and Adélie Land, their status and conservation. In: Croxall, J.P., Evans, P.G.H. & Schreiber, R.W. (Eds). *Status and conservation of the World's seabirds. International Council for Bird Preservation Technical Publication 2*: 609-624.
- Jouventin, P. & H. Weimerskirch. 1990. Long-term changes in seabird and seal populations in the Southern Ocean. In: Kerry, K.R. & Hempel, G. (Eds). *Antarctic ecosystems. Ecological change and conservation*. Berlin: Springer-Verlag. pp. 208-213.
- Jouventin, P. & H. Weimerskirch. 1991. Changes in the population size and demography of southern seabirds: management implications. In: Perrins, C.M., Lebreton, J.D. & Hiron, G.J.M. (Eds). *Bird population studies: their relevance to conservation and management*. Oxford: Oxford University Press. pp. 297-314.
- Macleay, G.L. 1985. *Roberts' birds of southern Africa*. Cape Town: John Voelcker Bird Book Fund.
- Marchant, S. & P.J. Higgins. 1990. *Handbook of Australian, New Zealand and Antarctic birds. Vol. 1, Part A. Ratites to petrels*. Melbourne: Oxford University Press.
- Murray, T.E., Bartle, J.A., Kalish, S.R. & P.R. Taylor. 1993. Incidental capture of seabirds by Japanese Southern Bluefin Tuna longline vessels in New Zealand waters, 1988-1992. *Bird Conservation International* 3: 181-210.
- Patterson, D.L. & S. Hunter. in press. Giant petrel *Macronectes* spp. band recovery analysis from the International Giant Petrel Banding Project, 1988/89. *Marine Ornithology*.
- Patterson, D.L., Woehler, E.J., Croxall, J.P., Cooper, J., Poncet, S. & W.R. Fraser. in press. Breeding distribution and population status of the Northern Giant Petrel *Macronectes halli* and the Southern Giant Petrel *M. giganteus*. *Marine Ornithology*.
- Prince Edward Islands Management Plan Working Group. 1996. *Prince Edward Islands*

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- Management Plan*. Pretoria: Directorate: Antarctica and Islands, Department of Environmental Affairs and Tourism.
- Rounsevell, D.E. & N.P. Brothers. 1984. The status and conservation of seabirds at Macquarie Island. In: Croxall, J.P., Evans, P.G.H. & Schreiber, R.W. (Eds). Status and conservation of the World's seabirds. *International Council for Bird Preservation Technical Publication 2*: 587-592.
- Ryan, P.G. 1987. The incidence and characteristics of plastic particles ingested by seabirds. *Marine Environmental Research* 23: 175-206.
- Ryan, P.G. & C. Boix-Hinzen. 1998. Tuna longline fisheries off southern Africa: the need to limit seabird bycatch. *South African Journal of Science* 94: 179-182.
- Ryan, P.G. & C. Boix-Hinzen. in press. Consistent male-biased seabird mortality in the Patagonian Toothfish longline fishery. *Auk*.
- Ryan, P.G., Boix-Hinzen, C., Enticott, J.W., Nel, D.C., Wanless, R. & M.G. Purves. 1997. Seabird mortality in the longline fishery for Patagonian Toothfish at the Prince Edward Islands: 1996-1997. *CCAMLR-WG-FSA 97/51*.
- Ryan, P.G. & M.G. Purves. 1998. Seabird bycatch in the Patagonian Toothfish longline fishery at the Prince Edward Islands: 1997-1998. *CCAMLR-WG-FSA 98/36*.
- Sladen, W.J.L. & Tickell, W.L.N. 1958. Antarctic bird-banding by the Falkland Islands Dependencies Survey, 1945-1957. *Bird-banding* 29: 1-26.
- Tickell, W.L.N. & C.D. Scotland. 1961. Recoveries of ringed Giant Petrels *Macronectes giganteus*. *Ibis* 103a: 26-266.
- Voisin, J.-F. 1990. Movements of giant petrels *Macronectes* spp. banded as chicks at Iles Crozet and Kerguelen. *Marine Ornithology* 18: 27-36.
- Weimerskirch, H. & P. Jouventin. 1994. Changes in population size of large Procellariiformes breeding in the French sub-Antarctic islands: potential influence of southern fisheries and particularly long-lining. *CCAMLR-WG-IMALF 94/11*.
- Woehler, E.J. 1996. Concurrent decreases in five species of Southern Ocean seabirds in Prydz Bay. *Polar Biology* 16: 379-382.