RECOVERY OUTLINE

Wandering Albatross

1	Family	Diomedeidae
2	Scientific name	*Diomedea exulans* Linnaeus, 1758
3	Common name	Wandering Albatross
4	Conservation status	
	Australian breeding population	Critically Endangered: D
	Population visiting Australian territory	Vulnerable: A1bd+2bd

5 Reasons for listing

The Australian breeding population numbers less than 50 mature individuals (Critically Endangered: D). The global population, most of which visits Australian waters, has decreased in size by 20-50% (Vulnerable: A1), based on an appropriate index of abundance (b) and estimates of fishing bycatch (d), a trend (b) that is likely to continue (2d). Level of genetic interchange between Australian and visiting population arguably low so status of Australian population assessed independently (as per Gärdenfors *et al*., 1999).

Australian breeding colonies	*Estimate*	*Reliability*
Extent of occurrence	*5,000,000 km²*	*medium*
trend	*stable*	*medium*
Area of occupancy	*4 km²*	*high*
trend	*stable*	*high*
No. of breeding birds	*35*	*high*
trend	*decreasing*	*high*
No. of sub-populations	*1*	*medium*
Generation time	*25 years*	*medium*
Global population share	*< 1 %*	*high*
Level of genetic exchange	*low*	*medium*

6 Infraspecific taxa

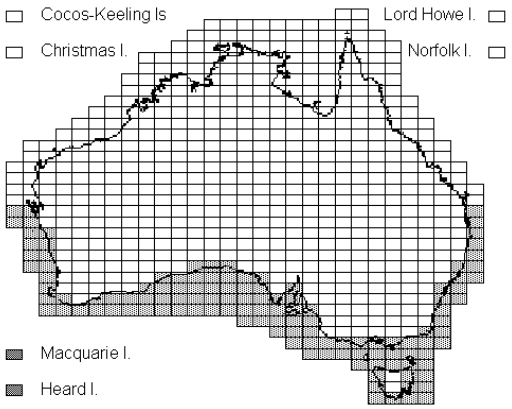
None recognised.

7 Past range and abundance

Circumpolar distribution, with breeding recorded from six subantarctic island groups (Marchant and Higgins, 1990, EABG, 1999), including Macquarie and Heard Is. Extralimital colonies in the Indian Ocean (Crozet, Kerguelen, Marion and Prince Edward Is) and on South Georgia in the South Atlantic Ocean. Feeding throughout Southern Ocean including waters off southern Australia, with females and juveniles generally feeding at lower latitudes than males. Also several records from northern hemisphere. Non-breeding birds are usually found between 30° and 50°S, where they take advantage of weather systems to exploit food resources (Nicholls *et al*., 1995, 1997). Foraging trips by breeding birds have exceeded 15,000 km (Jouventin and Weimerskirch, 1990). It is thought population on Macquarie I. was devastated by sealers during the 19th century. Since then the population at Macquarie I. has varied between a single breeding pair in 1913 to 44 breeding pairs in 1967/1968 (Carrick and Ingham, 1970). It may have been augmented by immigration in the 1950s (de la Mare and Kerry, 1994) but this requires confirmation (R. Gales).

8 Present range and abundance

Range stable but decreases evident in both size of most breeding colonies and in density at sea (Woehler, 1996, Gales, 1998). Current global population estimated at 55,000 individuals, with around 8,500 pairs breeding annually, equivalent to 28,000 mature individuals (Gales, 1998). Initial population increase on Macquarie I. following cessation of sealing has been reversed since advent of long-line fisheries. At 50%, breeding success has been high, but so has adult mortality (EABG, 1999). At last report there were fewer than 10 pairs breeding annually on Macquarie I. (de la Mare and Kerry, 1994, Gales, 1998). A single pair has been recorded on Heard I. (Woehler, 1991) but no attempt at breeding was reported.



9 Ecology

Wandering Albatrosses breed biennially (if successful) in small, loose colonies among grass tussocks, using a large mud nest. They feed in pelagic, offshore and inshore waters, mainly taking squid and fish, but also crustaceans and carrion (Marchant and Higgins, 1990) with 50->80% in an exclusive economic zone of one of the southern countries (D. G. Nicholls). They

frequently attend fishing vessels, where they dominate in competition for food among several albatross species (Brothers, 1991).

10 Threats

The mobility of the Wandering Albatross means individuals have a high probability of encountering longline fishing boats from which they take bait, frequently swallowing hooks and drowning or dying from injuries after release (Brothers, 1991, Gales *et al.* 1998). Wandering Albatrosses are also shot for bait or to prevent them scavenging bait from dropline fisheries (EABG, 1999). Such high mortality rates are reflected in decreasing numbers at breeding colonies. The small size of the Macquarie I. sub-population is probably the legacy of hunting by sealers in the 19th century. Since then breeding success and/or nest-site selection have probably been adversely affected by an elevated number of Subantarctic Skuas *Catharacta lonnbergi*, and human disturbance (EABG, 1999). Ingestion of plastics and hooks and their regurgitation to chicks, entanglement in marine debris and accumulation of chemical contaminants may also pose risks to this species (EABG, 1999).

11 Information required

11.1 Determine diet and foraging areas of breeding population.

11.2 Quantify extent of plastic debris egestion.

11.3 Assess chemical pollutant levels in tissue and the effect of pollutants on fertility.

11.4 Measure levels of avian diseases and parasites.

11.5 Develop genetic profiles for breeding populations.

11.6 Determine acceptable levels of at-sea threats.

12 Recovery objectives

12.1 Reduce at-sea threats to acceptable levels.

12.2 Reduce land-based threats to acceptable levels.

12.3 Obtain global agreement on conservation measures required.

12.4 Promote public awareness of the conservation needs of albatrosses.

13 Actions completed or under way

13.1 A Threat Abatement Plan (TAP) to minimise fishing bycatch has been prepared (EABG, 1998).

13.2 Effective mitigation techniques have been developed and are being improved.

13.3 Bycatch rates in the AFZ and the success of mitigation measures are monitored and the results quickly analysed.

13.4 Measures known to be effective in mitigating seabird bycatch within the AFZ are promoted by legislation, a code of practice and education programs.

13.5 Continued monitoring of breeding population sizes and success.

13.6 Ongoing feral animal control on Macquarie I.

13.7 Tourists on breeding islands are managed to prevent disturbance.

13.8 A Recovery Plan has been written and a Recovery Team is in place.

14 Management actions required

14.1 Limit further construction on breeding islands.

15 Organisations responsible for conservation

Australian Antarctic Division, Environment Australia, Tasmanian Parks and Wildlife Service.

16 Other organisations involved

Antarctic Science Advisory Committee, Australian Department of Foreign Affairs and Trade, Australian Agriculture, Fisheries and Forestry - Australia, Australian Fisheries Management Authority, Convention for Conservation of Migratory Species of Wild Animals, Ecologically Related Species Working Group of the Commission for the Conservation of Southern Bluefin Tuna, Food and Agricultural Organization of the United Nations and its Committee on Fisheries, Incidental Mortality Arising from Longline Fishing – ad hoc Working Group of the Working Group on Fish Stock Assessment of Convention for the Conservation of Antarctic Marine Living Resources, Tasmanian Fisheries Service, professional fishing industry groups.

17 Staff and financial resources required for recovery to be carried out

Staff resources required 2001-2005	*1.0*	*Project Officer (international liaison)* [1]
	2.0	*Project Officer (diet, foraging range)* [2]
	3.0	*Technical Officers (fisheries observers)* [1]
	1.0	*Technical Officer (monitoring)* [2]
	1.0	*Technical Officer (ferals)* [3]
	1.0	*Technical Officer (monitoring)* [3]
	1.0	*Extension Officer* [1]

Financial resources required 2001-2005

Action	*Conservation agencies*	*Other funding sources*	*Total*
Develop improved fishing bycatch mitigation [1]	$10,500	$10,500	$21,000
Analysis of annual bycatch data [1]	$8,300	$0	$8,300
Monitor bycatch rates in the AFZ and success of mitigation measures [1]	$3,600	$8,600	$12,200
Educate fishers in the AFZ in mitigation techniques [1]	$6,300	$5,400	$11,700
Inform national fora about the TAP [1]	$2,300	$0	$2,300
Inform international fora about the TAP and pursue international threat abatement [1]	$3,900	$0	$3,900
Maintain currency of TAP and report annually [1]	$2,100	$0	$2,100
Demographic and foraging studies [2]	$64,000	$28,300	$92,300
Monitoring breeding population [3]	$21,900	$0	$21,900
Feral animal control on Macquarie I. [3]	$277,900	$0	$277,900
Research on plastic pollution, parasites and disease [4]	$6,500	$6,500	$13,000
Research on genetics [5]	$500	$500	$1,000
Managing recovery process [5]	$4,600	$1,800	$6,400
Total	$412,400	$61,600	**$474,000**

1 Costs for TAP actions divided amongst all 20 albatrosses, 2 giant-petrels, White-chinned Petrel and Grey Petrel; costs to fishing industry assumed to be offset by improved catch of fish
2 Costs for diet and foraging range studies on Macquarie I divided among Rockhopper Penguin, four breeding albatrosses and two giant-petrels; Heard I. divided among Rockhopper Penguin, three albatrosses and Southern Giant-Petrel
3 Costs of Macquarie I. monitoring and feral animal control shared among 19 threatened taxa; Heard I. monitoring divided among 17 taxa
4 Costs shared among 2 penguins, 2 giant-petrels, Wandering, Black-browed, Grey-headed, Shy and Light-mantled Albatrosses
5 Costs shared among 20 albatrosses and 2 giant-petrels

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