

## RECOVERY OUTLINE

# Grey-headed Albatross

1	Family	Diomedidae
2	Scientific name	<i>Thalassarche chrystoma</i> (J. R. Forster, 1785)
3	Common name	Grey-headed Albatross
4	Conservation status	
	Australian breeding population	Endangered: D
	Population visiting Australian territory	Vulnerable: A1bd+2bd

### 5 Reasons for listing

The Australian breeding population contains 50 to 250 individuals (Endangered: D). There is assumed to be little genetic interchange with extralimital populations so the status of the Australian breeding birds has been assessed independently of the global status (as per Gärdenfors *et al.*, 1999). There has been a decrease of 20-50% in the size of the global population over the last three generations (Vulnerable: A1) based on observations of decreased survivorship and recruitment at some colonies (b), probably as a result of fishing bycatch (d). These trends are likely to continue (2bd).

Australian breeding colonies	Estimate	Reliability
Extent of occurrence	5,000,000 km <sup>2</sup>	high
trend	stable	high
Area of occupancy	2 km <sup>2</sup>	high
trend	stable	high
No. of breeding birds	250	high
trend	stable	medium
No. of sub-populations	1	high
Generation time	25 years	medium
Global population share	< 1 %	high
Level of genetic exchange	low	medium

### 6 Intraspecific taxa

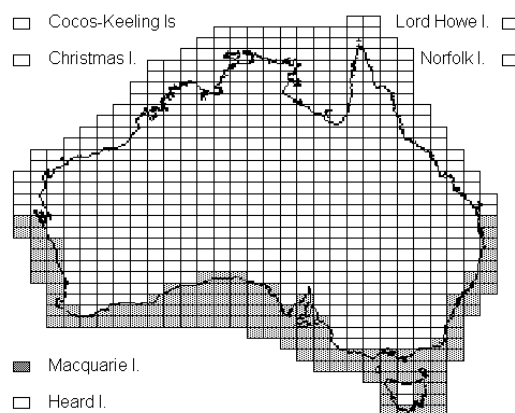
None described.

### 7 Past range and abundance

In Australian territory, 70-80 pairs breeding on the southern and western flanks of Petrel Peak, Macquarie I. since 1912 (Copson, 1988). Also breeding on islands in Pacific, Indian and Atlantic Oceans and at Cape Horn (Gales, 1998). Breeding and non-breeding birds disperse widely across the Southern Ocean, at more southerly latitudes in summer than in winter, when they frequent the waters off southern Australia and New Zealand (Marchant and Higgins, 1990, Waugh *et al.*, 1999). Most Australian records come from Tasmania, and fewest from Western Australia and southern Queensland (Marchant and Higgins, 1990).

### 8 Present range and abundance

Global population size, but not necessarily distribution, decreasing (EABG, 1999). Current global population estimated at 600,000 individuals, with 92,300 pairs breeding annually (Croxall and Gales, 1998, EABG, 1999). Most breeding populations have decreased as a result of adult deaths and poor recruitment, some by >50% (Gales, 1998). While the number of pairs breeding on Macquarie I. appears fairly stable at 70-80 pairs, the number of chicks successfully fledged has fluctuated widely (9-54) and recruitment to the breeding population is extremely low (Copson, 1988, Terauds and Hume, 1997, Gales, 1998, EABG, 1999).



### 9 Ecology

Grey-headed Albatrosses breed biennially (if successful) in dispersed colonies amidst grass tussocks (Copson, 1988). Foraging is primarily away from the continental shelf (Prince *et al.*, 1998), the diet varying geographically and including squid, fish, crustaceans, penguin carrion and lampreys (Rodhouse *et al.*, 1990, Reid *et al.*, 1996; Cherel and Klages, 1998). The birds frequently forage behind fishing boats (Brothers, 1991, Reid *et al.*, 1996, EABG, 1999).

### 10 Threats

Following earlier population decreases as a result of hunting and egg-collecting (Gales, 1998), the Grey-headed Albatross is now threatened by its association with longline fishing boats (Brothers 1991, Gales, 1998). In southern waters, Japanese longline

operations alone were estimated to kill more than 1,375 Grey-headed Albatrosses a year, with at least 100-500 of these deaths occurring in Australian Fishing Zone (Brothers, 1991, Klaer and Polacheck, 1997, EABG, 1999). Mortality rates are high around all breeding colonies and the small size of the breeding population on Macquarie I makes it particularly vulnerable (EABG, 1999). Projected expansion of the longline industry in the high seas is likely to increase the impact on the species (Gales, 1993, Prince *et al.* 1998, EABG, 1999). Numerous Grey-headed Albatrosses are also killed by collision with netsonde cables used by many fishing trawlers, which are active in the high seas, or shot for bait and food off the coast of South Africa (Gales, 1998, EABG, 1999). Survival of Grey-headed Albatrosses may also be threatened by expansion of commercial squid fishing operations in the Southern Ocean (Prince *et al.*, 1998, Gales, 1998, EABG, 1999). Breeding success and/or nest-site selection have probably been adversely affected by cats and an elevated number of Subantarctic Skua *Catharacta lonnbergi* on Macquarie I. where human disturbance may also be a threat (EABG, 1999).

#### 11 Information required

- 11.1 Determine diet and foraging areas of breeding population.
- 11.2 Develop genetic profiles for breeding population.
- 11.3 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 size 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

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) <sup>1</sup>
	2.0	Project Officer (diet, foraging range) <sup>2</sup>
	3.0	Technical Officers (fisheries observers) <sup>1</sup>
	1.0	Technical Officer (monitoring) <sup>2</sup>
	1.0	Technical Officer (ferals) <sup>3</sup>
	1.0	Technical Officer (monitoring) <sup>3</sup>
	1.0	Extension Officer <sup>1</sup>

### Financial resources required 2001-2005

Action	Conservation agencies	Other funding sources	Total
Develop improved fishing bycatch mitigation <sup>1</sup>	\$10,500	\$10,500	\$21,000
Monitor bycatch rates in the AFZ and success of mitigation measures <sup>1</sup>	\$3,600	\$8,600	\$12,200
Analysis of annual bycatch data <sup>1</sup>	\$8,300	\$0	\$8,300
Educate fishers in the AFZ in mitigation techniques <sup>1</sup>	\$6,300	\$5,400	\$11,700
Inform national fora about the TAP <sup>1</sup>	\$2,300	\$0	\$2,300
Inform international fora about the TAP and pursue international threat abatement <sup>1</sup>	\$3,900	\$0	\$3,900
Maintain currency of TAP and report annually <sup>1</sup>	\$2,100	\$0	\$2,100
Demographic and foraging studies <sup>2</sup>	\$50,000	\$14,300	\$64,300
Monitoring breeding population <sup>3</sup>	\$15,800	\$0	\$15,800
Feral animal control on Macquarie I. <sup>3</sup>	\$277,900	\$0	\$277,900
Research on plastic pollution, parasites and disease <sup>4</sup>	\$6,500	\$6,500	\$13,000
Research on genetics <sup>5</sup>	\$500	\$500	\$1,000
Managing recovery process <sup>5</sup>	\$4,600	\$1,800	\$6,400
<b>Total</b>	<b>\$392,300</b>	<b>\$47,600</b>	<b>\$439,900</b>

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 divided among Rockhopper Penguin, four breeding albatrosses and two giant-petrels

3 Costs of Macquarie I. monitoring and feral animal control shared among 19 threatened 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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