

RECOVERY OUTLINE

Black-browed Albatross

1	Family	Diomedidae
2	Scientific name	<i>Thalassarche melanophrys</i> (Temminck, 1828)
3	Common name	Black-browed Albatross
4	Conservation status	
	Australian breeding population	Endangered: C1
	Population visiting Australian territory	Near Threatened: c

5 Reasons for listing

The Australian breeding population contains fewer than 2,500 mature individuals and is likely to decrease in size by 20% over the next two generations (30 years; Endangered: C1) as a result of long-line fishing.

Globally, the species has probably declined in density over half its range (Near Threatened: c). Because there is thought to be little genetic interchange between populations, the status of the Australian breeding population is assessed independently of the global status (as per Gärdenfors *et al.*, 1999).

Australian breeding colonies	Estimate	Reliability
Extent of occurrence	5,000,000 km ²	medium
trend	contracting	medium
Area of occupancy	6 km ²	high
trend	stable	high
No. of breeding birds	2,000	medium
trend	decreasing	medium
No. of sub-populations	4	high
Largest sub-population	1,300	medium
Generation time	15 years	medium
Global population share	< 1 %	high
Level of genetic exchange	low	medium

6 Intraspecific taxa

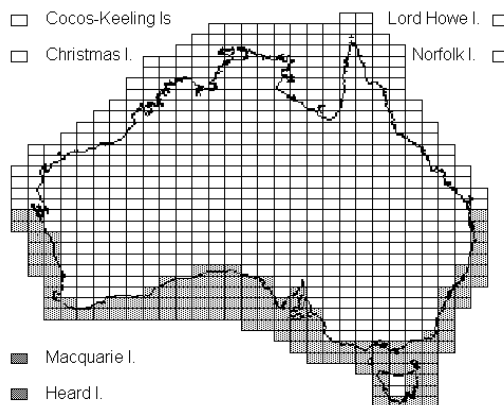
None described, but formerly considered conspecific with *T. impavida*.

7 Past range and abundance

Breeding on Heard, McDonald, Macquarie and Bishop and Clerk Is. in Australian territory, and on many other subantarctic islands outside Australian waters (Marchant and Higgins, 1990). Foraging in breeding season in Antarctic and subantarctic waters adjacent to breeding area, moving northwards in non-breeding season, sometimes as far as the northern hemisphere (Marchant and Higgins, 1990). The waters off southern Australia between Brisbane and Perth are the principal feeding area of birds from Macquarie and Kerguelen Is, but are also visited by birds from most other breeding areas.

8 Present range and abundance

Current global population estimated at 3,000,000 individuals, with 680,000 breeding pairs, 80% of them on Falkland Is (Gales, 1998). Falkland Is breeding colonies stable or increasing but all measures of other non-Australian colonies indicate population decreases (Gales, 1998). Australian colonies are among the smallest, with approximately 40 pairs breeding on Macquarie I., 85 pairs on McDonald Is., 140 pairs on Bishop and Clerk Islets and 600-700 pairs on Heard I. (Woehler, 1991, Kirkwood and Mitchell, 1992, Gales, 1998, Terauds and Hume, 1997). Not known if Macquarie I. breeding sub-population was ever more numerous, but one colony site, North Head, is no longer occupied (Terauds and Hume, 1997). Heard I. sub-population subject to rapid fluctuations (Kirkwood and Mitchell, 1992). Recruitment of Macquarie I. birds to the breeding sub-population is low at 3.3% (Copson, 1988). Recruitment rates at other colonies has decreased since the advent of longline fisheries (Prince *et al.*, 1994).



9 Ecology

The Black-browed Albatross nests in colonies in tussock-grasslands and feeds over continental shelves, oceanic upwellings and boundaries of currents, in harbours, bays and near fishing vessels. Breeding is annual even if the single nestling is fledged successfully. The main foods are crustaceans and fish, supplemented by cephalopods, salps, jellyfish and scavenged penguin flesh (Marchant and Higgins, 1990).

10 Threats

Although the species is still numerous and widespread, the decrease in Black-browed Albatross numbers, low recruitment and close association with fishing boats are all a cause for concern. The Black-browed Albatross is one of the species most frequently killed while attempting to take bait from the hooks on longlines (Brothers 1991, Gales, 1993, EABG, 1999). Decreases recorded in numbers and/or recruitment rates at many breeding colonies indicate that current mortality rates cannot be sustained (Weimerskirch *et al.*, 1989, Prince *et al.*, 1994, EABG, 1999). Breeding success and/or nest-site selection have probably been adversely affected by cats and an inflated number of Subantarctic Skua *Catharacta lonnbergi* on Macquarie I. (EABG, 1999).

11 Information required

- 11.1 Determine diet and foraging areas of breeding sub-populations.
- 11.2 Develop genetic profiles for breeding sub-populations.
- 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

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

<i>Staff resources required 2001-2005</i>	1.0	<i>Project Officer (international liaison)¹</i>
	2.0	<i>Project Officer (diet, foraging range)²</i>
	3.0	<i>Technical Officers (fisheries observers)¹</i>
	1.0	<i>Technical Officer (monitoring)²</i>
	1.0	<i>Technical Officer (ferals)³</i>
	1.0	<i>Technical Officer (monitoring)³</i>
	1.0	<i>Extension Officer¹</i>

Financial resources required 2001-2005

<i>Action</i>	<i>Conservation agencies</i>	<i>Other funding sources</i>	<i>Total</i>
<i>Develop improved fishing bycatch mitigation¹</i>	\$10,500	\$10,500	\$21,000
<i>Monitor bycatch rates in the AFZ and success of mitigation measures¹</i>	\$3,600	\$8,600	\$12,200
<i>Analysis of annual bycatch data¹</i>	\$8,300	\$0	\$8,300
<i>Educate fishers in the AFZ in mitigation techniques¹</i>	\$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 sub-populations 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

18 Bibliography

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