

**Approved Conservation Advice for**  
***Thalassarche chrysostoma* (Grey-headed Albatross)**

(s266B of the *Environment Protection and Biodiversity Conservation Act 1999*)

This Conservation Advice has been developed based on the best available information at the time this Conservation Advice was approved; this includes existing plans, records or management prescriptions for this species.

**Description**

*Thalassarche chrysostoma*, Family Diomedidae, also known as the Grey-headed Albatross is a medium-sized albatross. Adults weigh approximately 3-4 kilograms and have a wingspan of just over two metres. The head, neck and mantle of the Grey-headed Albatross are darkish blue-grey in colour. The upper-wings are black and the under-wings are white with a dark grey stripe on the forward edge and a lighter, narrower grey stripe on the trailing edge. Grey-headed Albatrosses have a black bill with a yellow stripe running down the culmen, ending in an orange-red tip. The eyes are black, with a brown iris. The legs and feet are usually grey or pink (Pizzey and Knight, 1999).

**Conservation Status**

The Grey-headed Albatross is listed as endangered. This species is eligible for listing as endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwth) (EPBC Act) as it has a restricted geographic distribution, in terms of its nesting area, which is precarious for its survival. The number of individuals breeding on Macquarie Island is low and this number is likely to decline due to a variety of threats (TSSC, 2009). The species is listed as a marine and migratory species under the EPBC Act. The species is listed as endangered under the Tasmanian *Threatened Species Protection Act 1995*. The global population of the Grey-headed Albatross is listed as vulnerable on the IUCN Red List.

**Distribution and Habitat**

The Grey-headed Albatross has a circum-global distribution in the southern hemisphere (Prince et al., 1998, p. 137-167; Weimerskirch, 1998, p. 168-179). The species breeds in subantarctic island colonies ranging from less than 100 breeding pairs to several thousand breeding pairs. Globally, the annual breeding population of the Grey-headed Albatross is estimated to be approximately 92 000 pairs. This corresponds to roughly 250 000 mature individuals and 600 000 individuals in total (Gales, 1998, p. 20-45). The only place that the species breeds within Australian territory is on the southern and western slopes of Petrel Peak in the south-western corner of Macquarie Island. Macquarie Island is classified as a World Heritage Area, a Biosphere reserve and a National Estate property. The island is also classified as a Tasmanian Nature Reserve, and is managed by the Tasmanian Parks and Wildlife Service. The population on Macquarie Island consists of approximately 120 to 150 breeding pairs, representing approximately 0.15% of the global breeding population. The population's nesting area is approximately 0.12 km<sup>2</sup> (Terauds et al., 2005). This nesting area has been included on the EPBC register of Critical Habitat.

This species occurs within the Tasmania South Natural Resource Management region. The distribution of this species is not known to overlap with any EPBC Act-listed threatened ecological community.

## **Threats**

The greatest global threat to the Grey-headed Albatross is accidental mortality due to fisheries related by-catch. This includes by-catch in long-line fisheries, trawl fisheries, driftnetting and trolling operations (DEWHA, 2009a). Globally, the species experienced a decline of 48% over three generations (90 years) primarily due to this threat (IUCN, 2008). Within Australian jurisdiction, implementation of the 'Threat Abatement Plan for the Incidental Catch (or bycatch) of Seabirds during Oceanic Longline Fishing Operations' has significantly reduced levels of albatross bycatch in longline fisheries (DEWHA, 2009a).

An analysis of Macquarie Island population data from 1975 to 2005 found that long-line fishing was not likely to have significantly impacted on the Macquarie Island population (Terauds et al., 2005). However, although it may not be significant, accidental mortality due to fisheries related by-catch is still a threat to the small Macquarie Island population, notably in international waters where actions to mitigate fisheries related by-catch are not enforced (DEWHA, 2009a). There are insufficient data to determine the degree to which this threat impacted on the Macquarie Island population prior to 1975 (Terauds et al., 2005). The trawl and longline fishing operations that currently occur within the Exclusive Economic Zone surrounding Macquarie Island are subject to stringent mitigation measures that have, to date, successfully avoided observed interactions between these birds and the fisheries. Foraging studies have shown that Grey-headed Albatrosses at Macquarie Island spend significant time in waters outside the spatial extent of the Marine Protected Areas (MPAs) off the island, and thus remain at high risk from fisheries in other areas (Terauds et al., 2006).

The major and most urgent threat to the Macquarie Island population of Grey-headed Albatrosses is reduction of its nesting habitat due to grazing by European rabbits (*Oryctolagus cuniculus*). Increased grazing by rabbits has severely degraded the quality of the population's nesting habitat. Rabbit grazing has increased the frequency of landslides in the area reducing available nesting habitat. The grazing and resultant slope instability has the potential to reduce breeding success on Macquarie Island as landslips remove vegetation and soil cover, exposing rock or clay, which the albatrosses are unable to nest upon (Trebilco et al., 2007). Rodents may also be a threat to the Macquarie Island population of Grey-headed Albatross through predation on eggs and young.

Additional global threats to the species include parasites and disease, competition with fisheries for marine resources and pollution. Mortality of Grey-headed Albatrosses can occur following ingestion or entanglement in marine debris. Changes in the distribution and abundance of food resources due to climate change is also a potential threat to the species on a global scale. All of the above threats potentially affect the population breeding on Macquarie Island (DEWHA, 2009a).

## **Research Priorities**

Research priorities that would inform future regional and local priority actions include:

- Continue the long term albatross monitoring program on Macquarie Island, which monitors the population at land and at sea, monitoring the size and survival rates of the Macquarie Island population and identifying any changes in population trends.
- Further research the populations' distribution while at sea, to identify overlap with fisheries and to assess the efficacy of the MPA reserve system in protecting the birds in waters adjacent to the island.
- Ensure that the appropriate monitoring is undertaken to enable assessment and publication of the relative impacts of threatening processes, in particular continue to monitor the Grey-headed Albatrosses nesting area on Macquarie Island to assess the impact of rabbit

grazing, and the benefits of the implementation of the eradication program, on the breeding success of the Grey-headed Albatross.

- Research methods to improve the effectiveness of current techniques to minimise mortality due to long-line fishing, trawl fishing, driftnetting and trolling operations.
- Monitor any changes in the distribution and abundance of food resources which could potentially arise due to climate change. In turn, monitor the response of the Grey-headed Albatross to these changes, including changes in foraging patterns.
- Undertake vegetation restoration activities and monitor the recovery of vegetation in the Grey-headed Albatrosses nesting area, in order to better understand the preconditions for and most effective methods to re-establish nesting habitat.

### **Priority Actions**

The following priority recovery and threat abatement actions can be done to support the recovery of the Grey-headed Albatross.

#### **Habitat Loss, Disturbance and Modification**

- Implement the 'Plan for the Eradication of Rabbits and Rodents on Subantarctic Macquarie Island' (TPWS, 2007) as soon as feasible. During and after implementation of this plan, monitor the rate and extent of both vegetation recovery and any improved breeding success for the population of Grey-headed Albatrosses on the island.
- Continue to monitor the effectiveness of current management actions and the need to adapt them if necessary. In particular, maintain, and revise if required, the current mitigation conditions required by the Australian Fisheries Management Authority (AFMA) for the longline and trawl fisheries that operate in waters off Macquarie Island. In addition, continue to monitor the implementation and the effectiveness of the actions outlined in the 'Threat Abatement Plan for the Incidental Catch (or bycatch) of Seabirds during Oceanic Longline Fishing' (DEH, 2006).
- Through enforcement and other actions, including education, ensure effective mitigation measures to minimise albatross by-catch are implemented in other fisheries within Australian waters.
- Continue to explore options to abate the threat posed by accidental by-catch from legal and illegal fishing outside of Australian waters, particularly in areas where Grey-headed Albatrosses from Macquarie Island are known to forage.
- Continue to limit human disturbance of nest sites by suitably controlling and managing access to the species' nesting area through continued review and implementation of the Special Management Areas concept.
- Following eradication of rabbits and rodents from Macquarie island, undertake work to restore tussock vegetation on Grey-headed Albatross breeding slopes.
- Continue to monitor the Macquarie Island population of Grey-headed Albatross to identify any additional threats to the population.

#### **Animal Predation or Competition**

- Implement the 'Plan for the Eradication of Rabbits and Rodents on Subantarctic Macquarie Island' (TPWS, 2007). Monitor the long-term impact of the plan on the population and breeding success of the Albatross.
- Monitor the Grey-headed Albatross population on Macquarie Island through breeding surveys.
- Establish and maintain an effective quarantine regime to protect Macquarie Island from the introduction of pests.

### Diseases, Fungi and Parasites

- Continue to implement suitable hygiene and biosecurity protocols to protect Macquarie Island from outbreaks of disease/fungus/parasites which could potentially be introduced to the island by humans.

### Conservation Information

- Continue efforts to achieve progress in the global conservation of albatrosses in international conservation and fishing forums, including by the mandatory adoption of seabird bycatch mitigation measures in relevant fisheries managed by regional fisheries management organisations or countries.
- Raise awareness of seabird conservation in fishery-related industries, through the provision of clear guidelines outlining fishing techniques to avoid by-catch of seabirds, feral pest eradication protocols, outlining methods to avoid marine pollution through the distribution of fact sheets and information brochures.
- Raise awareness of the Grey-headed Albatross amongst the general public through fact sheets or information brochures outlining, for example, the potential effects of marine pollution on the Grey-headed Albatross.
- Continue to contribute Grey-headed Albatross population, survival rates and foraging data to international initiatives that assist in the conservation of this species (eg Agreement for the Conservation of Albatrosses and Petrels (ACAP) and Birdlife International).

This list does not necessarily encompass all actions that may be of benefit to the Grey-headed Albatross, but highlights those that are considered to be of highest priority at the time of preparing the Conservation Advice.

### **Existing Plans/Management Prescriptions that are Relevant to the Species**

- Plan for the Eradication of Rabbits and Rodents on Subantarctic Macquarie Island. (TPWS, 2007). This plan is jointly funded by the Commonwealth and Tasmanian Governments and aims to eradicate rabbits and rodents from Macquarie Island through methods such as aerial baiting and shooting. Implementation of this plan is scheduled to begin in 2010.
- Draft Background Paper – Population status and threats to albatrosses and giant petrels listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999* (DEWHA, 2009a).
- Draft Recovery Plan for Albatrosses and Giant Petrels (2009-2014) (DEWHA, 2009b).
- The Macquarie Island Nature Reserve and World Heritage Area Management Plan 2006 (TPWS, 2006).
- Threat Abatement Plan for the Incidental Catch (or bycatch) of Seabirds during Oceanic Longline Fishing (DEH, 2006) (and annual review of the Special Management Areas).
- AFMA longline and trawl management prescriptions for fishing operations conducted in the Macquarie Island MPA.

These prescriptions were current at the time of publishing; please refer to the relevant agency's website for any updated versions.

**Information Sources:**

- Department of the Environment and Heritage (DEH) (2006). Threat Abatement Plan for the Incidental Catch (or bycatch) of Seabirds during Oceanic Longline Fishing. The Department of the Environment, Water, Heritage and the Arts (formerly the Department of Environment and Heritage). Australian Antarctic Division. Hobart.
- Department of Environment, Water, Heritage and the Arts (DEWHA) (2009a). Draft Background Paper – Population status and threats to albatrosses and giant petrels listed as threatened under the *Environment Protection and Biodiversity Conservation Act 1999*. Department of the Environment, Water, Heritage and the Arts. Australian Antarctic Division. Hobart.
- Department of Environment, Water, Heritage and the Arts (DEWHA) (2009b). Draft National Recovery Plan for Threatened Albatrosses and Giant Petrels 2009-2014. Department of the Environment, Water, Heritage and the Arts. Australian Antarctic Division. Hobart.
- Gales R (1998). Albatross populations: status and threats. In ‘Albatross Biology and Conservation’ (eds G Robertson and R Gales). Surrey Beatty. Sydney.
- Pizzey G and Knight F (1999). The Graham Pizzey and Frank Knight Field Guide to the Birds of Australia. Angus and Robertson. Australia.
- Prince PA, Croxall JP, Trathan PN and Wood AG (1998). The pelagic distribution of South Georgia Albatrosses and their relationship with fisheries. In ‘Albatross Biology and Conservation’ (eds G Robertson and R Gales). Surrey Beatty. Sydney.
- Tasmanian Parks and Wildlife Service (TPWS) (2006). Macquarie Island Nature Reserve and World Heritage Area Management Plan. Tasmanian Parks and Wildlife Service. Hobart.
- Tasmanian Parks and Wildlife Service (TPWS) (2007). Plan for the Eradication of Rabbits and Rodents on Subantarctic Macquarie Island. Tasmanian Parks and Wildlife Service. Hobart.
- Terauds A, Gales R and Alderman R (2005). Trends in numbers and survival of Blackbrowed and Grey-headed Albatrosses breeding on Macquarie Island. *Emu* 105: 159-167.
- Terauds, A., Gales, R., Baker, G.B. and R. Alderman (2006). Foraging areas of black-browed and grey-headed albatrosses breeding on Macquarie Island in relation to marine protected areas. *Aquatic Conservation: Marine and Freshwater Ecosystems* 16; 133-146.
- Threatened Species Scientific Committee (TSSC) (2009). Listing advice for *Thalassarche chrysostoma* (Grey-headed Albatross).
- Trebilco R, Murray N, Gales R and Alderman R (2007). The Conservation and Status of Albatrosses and Giant-Petrels on Macquarie Island: Report on the 2006/07 Field Season. Department of Primary Industries and Water. Tasmania.

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Weimerskirch H (1998). Foraging strategies of Indian Ocean albatrosses and their relationships with fisheries. In 'Albatross Biology and Conservation'(eds Robertson G and Gales R). Surrey Beatty. Sydney.