

RECOVERY PLAN for the following Seabirds:

Round Island Petrel – *Pterodroma arminjoniana*

Herald Petrel – *Pterodroma heraldica*

Antarctic Tern (New Zealand) – *Sterna vittata bethunei*

Antarctic Tern (Indian Ocean) - *Sterna vittata vittata*

Blue Petrel – *Halobaena caerulea*

Fairy Prion (southern) – *Pachyptila tutur subantarctica*

Heard Shag – *Phalacrocorax nivalis*

Macquarie Shag - *Phalacrocorax purpurascens*

Soft-plumaged Petrel – *Pterodroma mollis*

Australian Lesser Noddy – *Anous tenuirostris melanops*

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Natural Heritage Trust

Helping Communities Helping Australia

A Commonwealth Government Initiative



Australian Government

Department of the Environment and Heritage

Background

The Round Island Petrel (*Pterodroma arminjoniana*) and the Herald Petrel (*Pterodroma heraldica*) were listed as threatened species under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) in July 2002 on the basis of recommendations from the Threatened Species Scientific Committee (TSSC). The category of listing for both species is critically endangered.

The Antarctic Tern (New Zealand) (*Sterna vittata bethunei*) was listed as a threatened species under the EPBC Act in July 2000. The category of listing for the Antarctic Tern (New Zealand) is endangered.

The Antarctic Tern (Indian Ocean) (*Sterna vittata vittata*), the Blue Petrel (*Halobaena caerulea*), the Fairy Prion (southern) (*Pachyptila tutur subantarctica*), the Heard Shag (*Phalacrocorax nivalis*), the Macquarie Shag (*Phalacrocorax purpurascens*), the Soft-plumaged Petrel (*Pterodroma mollis*) and the Australian Lesser Noddy (*Anous tenuirostris melanops*) were listed as threatened species under the EPBC Act in July 2000. The category of listing for these species is vulnerable.

Detailed background information on the biology, population status and threats to the seabirds covered by this plan can be found at

<http://www.deh.gov.au/coasts/species/seabirds/index.html>.

The following sets out the Recovery Plan for these species.

Objectives (270(2)(a))

To protect and manage the breeding and foraging habitats of the ten species covered by this plan to ensure anthropogenic threats, particularly the introduction and spread of alien flora and fauna, do not limit population growth of the species.

Threats (270(2)(ca))

Existing threats

The main threats to seabirds covered by this plan are; predation by introduced species; introduced species that modify or compete for breeding habitat; and introduced species that change the nature of ecological relationships between the species covered by this plan and other species. Of the breeding sites occupied by species covered under this plan, only Macquarie Island currently has introduced species that are of concern.

Foxes, cats and wekas have been successfully eradicated from Macquarie Island, but black rats and rabbits continue to be a problem. The size of rabbit populations on the Island is thought to have artificially increased populations of skuas, leading to high rates of skua predation on seabird species, particularly the blue petrel. Rabbits on Macquarie Island have also significantly altered vegetation, impacting the stability of breeding burrows for listed seabirds.

Potential threats

Among the many potential threats to the seabirds species covered by this plan are: pollution and marine debris, climatic and oceanic change, future accidental introduction of alien species, stochastic events and direct disturbance from research or interference. Fisheries related mortality and competition with fisheries are potential threats for many seabird species, although at present there is no evidence that fisheries pose a threat to any of the species covered by this plan. A breeding site for soft-plumaged petrels, Maatsuyker Island is currently free of feral pests. However, its proximity, to Tasmania (10kms off the southern coast) makes the accidental introduction of predators a significant potential threat to the breeding colony on this island. Incidental collisions with radio masts and aerials are a source of mortality for individual Heard and Macquarie shags.

With the possible exception of climatic change and stochastic events, whereas they pose real risks to some individuals and/or populations, at present none of these potential threats appear to have an impact on populations of any seabird species covered by this plan. For all species covered by this plan there is a general lack of biological and ecological knowledge, particularly in relation to the identification of foraging habitat.

Populations under Particular Pressure of Survival and Protective Measures (270(2)(e))

None of the species covered by this plan have populations currently under particular anthropogenic pressure of survival, however all species currently have restricted distributions and/or small populations.

Actions to Achieve the Objective/s (270(2)(c))

Actions identified for the recovery of the species covered in this plan are:

- to monitor the Australian breeding populations of the ten seabird species, and determine rates of population change, by undertaking scientifically robust and repeatable population surveys.
- to identify any emerging actual threats that will have an immediate impact on these species, particularly their breeding and foraging habitat, and develop appropriate responses.
- through necessary targeted research, to improve biological and ecological knowledge directed towards recovery outcomes for the ten threatened seabirds.
- to encourage the development and implementation of appropriate quarantine measures at breeding sites where these are not already in place.
- where management programs to control and/or eliminate alien species exist at key breeding sites, to support and encourage the continuation of these programs until alien species no longer pose a threat to the seabirds covered by this plan.

Management Practices (EPBC Reg. 7.11(2)(b))

Management practices and measures to address key threats, other than those contained in this plan, have been developed and are being implemented through, *inter alia*, various Heard

Island and Macquarie Island Management Plans, Australian Fisheries Management Authority (AFMA) procedures and protocols, the Australian Antarctic Division (AAD) Code of Conduct, Pulu Keeling National Park Management Plan, Western Australia (WA) Fisheries, Management of the Houtman Abrolhos System and the Raine Island Corporate Plan.

In addition, the EPBC Act provides protection for seabirds, making it an offence to kill, injure, take, trade, keep, or move any member of a listed threatened species on Commonwealth land or in Commonwealth waters without a permit. The EPBC Act also requires proponents of actions, which have or are likely to have a significant impact on listed threatened species or the marine environment, to refer the proposed action to the Australian Government Department of the Environment and Heritage for assessment.

Criteria to Measure Performance of the Plan against the Objective/s (270(2)(b))

The objectives of this plan will be attained when:

- key breeding sites for all species are adequately managed and protected from potential threats, in particular the accidental introduction of alien species
- populations, for those species with confirmed breeding sites in Australian waters, demonstrably increase, or show signs of stabilising.
- in the event that future actual threats to populations are identified, appropriate measures to minimise or mitigate them are developed and implemented as a priority
- for those species that are determined to be breeding in Australia, and are in the endangered or critically endangered category, the breeding population has increased sufficiently so that they are reclassified as vulnerable.
- effective management programs to control alien species are in place for all sites where alien species threaten breeding colonies of the seabirds covered by this plan .

Habitats Critical to the Survival of the Species and its Protection (270(2)(d))

Important habitat for the ten seabird species covered by this plan includes:

- Macquarie Island - Antarctic tern (New Zealand), blue petrel, fairy prion (southern), soft-plumaged petrel, Macquarie shag. Important feeding habitat includes the waters immediately surrounding Macquarie Island for the Antarctic tern (New Zealand).
- Heard Island - Antarctic tern (Indian Ocean), Heard shag
- Maatsuyker Island - soft-plumaged petrel.
- Raine Island - Herald petrel. The Herald petrel also possibly breeds in the Coral Sea, although this has not been confirmed.
- Morley, Wooded and Pelsaert Island of the Houtman Abrolhos system and possibly Ashmore Island – Australian lesser noddy.

The Round Island petrel possibly breeds on the tropical island of North Keeling. However, breeding has not been confirmed and evidence suggests that the amount of suitable breeding habitat is extremely restricted (around 1 square kilometre).

Macquarie and Heard Islands, and their surrounding waters, are afforded high levels of protection through, *inter alia*, their listing as World Heritage sites, their status as Marine Protected Areas under EPBC and, in the case of Macquarie Island, additional protection afforded by Tasmanian legislation. It can be concluded that while such protection arrangements remain in place, this habitat is sufficiently protected as habitat for those species that breed on these Islands. A total prohibition on commercial fishing within 13 nautical miles of Heard Island and within 3 nautical miles of Macquarie Island for reasons including protecting foraging habitat for seabirds and land based marine mammals likely mitigates potential threats to those seabird species covered by this plan that forage close to these islands.

Maatsuyker Island is afforded protection as part of the Tasmanian Wilderness World Heritage Area. Quarantine guidelines have been developed for volunteers that visit the island and for delivery of supplies to the volunteers that inhabit the island for periods of six months at a time. There are currently no commercial operators that visit the island and it is estimated that the average number of sea kayakers or recreational fishers that visit the island annually is around 6 – 10 individuals. Volunteers conduct regular monitoring for introduced species.

North Keeling Island and the surrounding water is a World Heritage Reserve, managed by the Parks Australia Division of the Department of the Environment and Heritage, in accordance with the Pulu Keeling National Park Management Plan.

The Houtman Abrolhos Islands are managed by WA Fisheries in accordance with the Plan of Management of the Houtman Abrolhos system.

Raine Island is a nature reserve managed by the Raine Island Corporation, a statutory authority of the Queensland Environment Protection Agency (EPA) in accordance with the Raine Island Corporate Plan 1996-2006. Access to the island is restricted to conservation and management research.

Little is known about the foraging habitat for most of the species covered under this plan as many disperse widely at sea. The Heard and Macquarie shags are believed to forage in waters surrounding their respective islands. The Antarctic tern (Indian Ocean) and (New Zealand) both forage in shallow water surrounding and inshore waters of Macquarie and Heard Islands.

Major Benefits to Other Native Species or Ecological Communities (270(2)(h))

Minimising threats to the seabirds included in this plan benefits other marine species that share the same breeding and/or foraging habitat.

The Sub-antarctic fur seal (*Arctocephalus tropicalis*) and the southern elephant seal (*Mirounga leonina*) as well as two other *Arctocephalus* species breed on, and the Hooker's sea lion (*Phacarcos hookeri*) hauls out on, Macquarie Island. The island is also a wintering area for the leopard seal (*Hydrurga leptonyx*). In the surrounding water several species of

whale have been recorded, including southern right whale (*Eubelaena australis*), sperm whale (*Physeter macrocephalus*) and killer whale.

Heard Island is an important breeding ground for several penguin species. Other breeding bird species include the globally endangered black-browed albatross (*Thalassarche melanophrys*), light-mantled albatross (*Phoebetria palpebrata*), southern giant-petrel (*Macronectes giganteus*), and Heard Island cormorant (*Phalacrocorax atriceps nivalis*) and lesser sheathbill (*Chionis minor nasicornis*).

The Abrolhos Islands support many species of breeding seabirds including the Wedge-tailed shearwater (*Puffinus pacificus*), little shearwater (*Puffinus assimilis*), white-faced storm petrel (*Pelagodroma marina*), common noddy (*Anous stolidus*), Caspian tern (*Sterna caspia*), crested Tern (*Sterna bergii*), roseate tern (*Sterna dougallii*) and fairy tern (*Sterna nereis*). The islands are also important breeding grounds for the Eastern Reef Heron (*Egretta sacra*), Pacific gull (*Larus pacificus*), bridled tern (*Sterna anaethetus*), white-breasted sea eagle (*Haliaeetus leucogaster*) and osprey (*Pandion haliaetus*).

North Keeling Island is an internationally significant seabird rookery with 17 of the 25 bird species recorded on the island actually breeding there. The dominant bird species, the red-footed booby (*Sula sula*), maintains one of the largest breeding colonies in the world on the island. The island is the only locality where the endemic and endangered Cocos buff-banded rail (*Gallirallus phillipensis andrewsi*) is found. The island is also home to a number of land crabs including the robber crab (*Birgus latro*), which is considered vulnerable to extinction internationally. The green turtle (*Chelonia mydas*) and the hawksbill turtle (*Eretmochelys imbricata*), which are both classified as vulnerable, also use the island.

Raine Island is a nesting site for the world's largest remaining population of green turtles (*Chelonia mydas*) as well as the most important seabird rookery in the Great Barrier Reef World Heritage Area.

Implementation of this plan is unlikely to have any negative impacts on any other native species or ecological communities, although research activities associated with monitoring seabirds may disturb other threatened species and will therefore have to be conducted in a way that minimises disturbance to other species.

Duration and Cost of the Recovery Process (270(2)(f))

This plan should be reviewed in 5 years time.

All of the species covered by this plan were listed on the threatened species list of the EPBC Act predominately for the reason that their geographic breeding distributions are restricted in Australia and therefore populations are vulnerable to emerging or potential threats. As with all species that fall under this group, removal from the vulnerable category of the EPBC threatened species list is unlikely, unless evidence emerges that the breeding distributions are expanding and populations have increased to the point that species can be removed from the list.

The cost of this plan should be covered under the core business expenditure of the affected organisations.

Affected Interests (270(2)(g)(i))

Organisations likely to be affected by the actions proposed in this plan include the following: AFMA; the Australian Government Department of Agriculture, Fisheries and Forestry; the AAD, the Australian Government Department of the Environment and Heritage; the Australian Government Department of Tourism, the Department of Parks, Heritage and the Arts, Western Australia, the Department of Fisheries, Tasmania; the Tasmanian Parks and Wildlife Service, the Department of Primary Industries, Water and Environment, Tasmania; the Queensland, Environmental Protection Agency; the Raine Island Corporation; GBRMPA, Commercial fishers; Conservation groups; Wildlife interest groups; Seabird Researchers and recreationists.

Organisations/Persons Involved in Evaluating the Performance of the Plan (270(g)(ii))

The Department of the Environment and Heritage, in consultation with relevant seabird experts, will evaluate the performance of this plan and report the results of their review to the Minister for the Environment and Heritage, through the Threatened Species Scientific Committee.

This recovery plan is obtainable from:

<http://www.deh.gov.au/biodiversity/threatened/publications/recovery/seabirds/index.html>

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