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Macquarie Island

World Heritage under threat

The exceptional natural beauty of Macquarie Island, 1500 kilometres south-east of Tasmania in the Southern Ocean, has made it one of Australia's World Heritage jewels. The island is home to a staggering array of wildlife and is considered an outstanding example of the major stages of the Earth's evolutionary history.

Key Points

- World Heritage-listed Macquarie Island is home to nearly four million seabirds, and provides nesting habitat for four threatened albatross species.
- Since the 1980s rabbit numbers on Macquarie Island have exploded from 10,000 to more than 100,000 today.
- Over-grazing by rabbits has decimated the island's vegetation and destabilised slopes. In 2006, 20 landslips were recorded in one month alone and some hill slopes have completely washed away. The result is a loss of nesting habitat and shelter for seabirds, contributing to the failure of almost half the nests in one season at one albatross study site and the recent death of king penguins by land slippage.
- Rats are directly impacting on the breeding success of six species of petrel by killing petrel adults and chicks in their nests.
- The Tasmanian Government, with Australian Government funding assistance, has developed an eradication plan for rabbits and rodents costing at about \$15m. The plan needs to be fully funded and started in 2007.

Macquarie Island is an important sanctuary for seabirds in the Southern Ocean. It provides habitat for nearly four million seabirds, and is a breeding habitat for 850,000 pairs of royal penguins, at least nine petrel species and four albatross species.

The island provides 'critical habitat' for two nationally threatened albatross species – the wandering and grey-

headed albatross – which have been listed under the *Commonwealth Environment Protection and Biodiversity Conservation Act* (EPBC Act). This is the only Australian breeding habitat for these two albatross species. If this breeding habitat is lost, it is unlikely that these two albatross species would continue to survive in Australia since they are extremely site faithful and are unlikely to breed anywhere else.



An unconfirmed number of king penguins were killed in a recent landslide on the island.

Macquarie Island under threat

Introduced invasive animals have had a devastating impact on the island's wildlife. Feral cats (as well as other feral animals) contributed to the extinction of two native bird species – the Macquarie Island parakeet and the Macquarie Island rail – before cats were totally eradicated in 2000.

Introduced rabbits, rats and mice are a growing threat on the island. Rabbits and rats threaten important species that depend on the island for their survival. Since the 1980s rabbit numbers have jumped from 10,000 to more than 100,000 today.

Rabbits strip hillside habitat

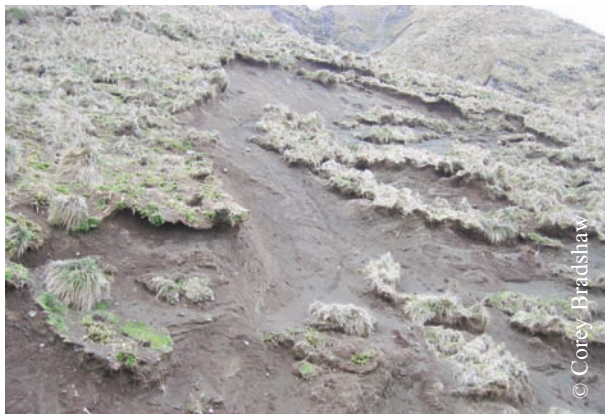
Entire hill slopes are being denuded by rabbits on Macquarie Island. This has destabilised many hill slopes, and in one month alone in 2006, 20 landslips were reported on the island,

one of which killed a number of king penguins. In addition, the loss of vegetation has made it difficult for albatross and petrels to nest because they are left without nesting grasses or shelter from predators.

At one light-mantled sooty albatross breeding area, several years of overgrazing by rabbits caused such slope instability that a number of nests simply fell off the hill. This contributed to almost half the nesting birds failing to rear a chick at the site in one season.

Only about 80 pairs of grey-headed albatross breed each year on the island and in the past five years their only known breeding site – Petrel Peak – has suffered severely from rabbit invasion, causing significant damage including landslips. As a result there is likely to have been a reduction in available nesting habitat.

While some petrel species initially improved after the successful eradication of feral cats, breeding numbers of white-headed petrels in particular are now declining because of the habitat destruction caused by rabbit grazing



Rabbit damaged slope.

Rats a predator of seabird chicks

The number of rats and mice on the island continues to grow. Breeding success for six petrel species is directly affected by rats (as well as rabbits) on the island, and scientists have reported evidence of rats killing burrowing petrel chicks in their nests. Rats and mice can have a devastating impact on native birds within a short time period. Blue petrels are seriously threatened by rat predation and now breed only on off-shore rock-stacks.

Rats and mice have also been found to feed on the chicks of those albatrosses studied more closely at other islands. For example on the UK's Gough Island, predation by house mice was found to reduce the breeding success of Tristan albatross from three in four chicks, down to one in four.

Illegal, unreported and unregulated (IUU) fishing in the Southern Ocean, including in the waters around Macquarie Island where long-line fishing is a major cause of seabird mortality, is adding to the pressures on albatross, petrels and other seabirds.

We must act now

Two species unique to Macquarie Island - the Macquarie Island parakeet and Macquarie Island rail - have already been driven to extinction. It is vital that we protect Macquarie

Island from further extinctions caused by invasive animals. The complete eradication of rats off Campbell Island in 2001 was a landmark for conservation management of sub-Antarctic islands. It allowed a number of seabirds to recolonise the island. In particular, the Campbell Island snipe colony began to recover naturally within two years of rat eradication.

The Tasmanian Government, with funding assistance from the Australian Government, has developed an eradication plan for the removal of rabbits and rodents from Macquarie Island. This will cost about \$15 million.

However, we only have a small window of opportunity for action on Macquarie Island. Unless the problem is addressed quickly, the local vegetation will not recover easily from the damage caused by rabbits. Rehabilitation of destroyed slopes could cost tens of millions – far more than the eradication plan – if the plan is not commenced soon.

WWF is calling for the Australian and Tasmanian governments to fully fund and commence implementation of the Macquarie Island rabbit and rodent eradication plan in 2007.

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