

RECOVERY OUTLINE

Gentoo Penguin (subantarctic)

| | | |
|---|---------------------|---|
| 1 | Family | Spheniscidae |
| 2 | Scientific name | <i>Pygoscelis papua papua</i> Forster, 1781 |
| 3 | Common name | Gentoo Penguin (subantarctic) |
| 4 | Conservation status | Vulnerable: D2 |

5 Reasons for listing

Although the Australian population is large, there are only two breeding sub-populations (Vulnerable: D2). Globally, the subspecies is listed as Near Threatened. Given existing threats to the global population and the lack of evidence of genetic exchange, the Australian status is considered independent of global status (as per Gärdenfors *et al.*, 1999).

| Australian breeding colonies | Estimate | Reliability |
|------------------------------|---------------------------|-------------|
| Extent of occurrence | 5,000,000 km ² | medium |
| trend | stable | high |
| Area of occupancy | 40 km ² | medium |
| trend | stable | high |
| No. of breeding birds | 40,000 | medium |
| trend | increasing | medium |
| No. of sub-populations | 2 | high |
| Largest sub-population | 30,000 | medium |
| Generation time | 10 years | medium |
| Global population share | 10 % | high |
| Level of genetic exchange | low | low |

6 Intraspecific taxa

P. p. ellsworthii (antarctic zone) is Near Threatened, which is also the global status of the species.

7 Past range and abundance

In Australian territory, breeding on Macquarie and Heard Is with extralimital populations on islands south of Indian and Atlantic Oceans. Non-breeding distribution unknown, but assumed to move extensively through the Southern Ocean (Marchant and Higgins, 1990).

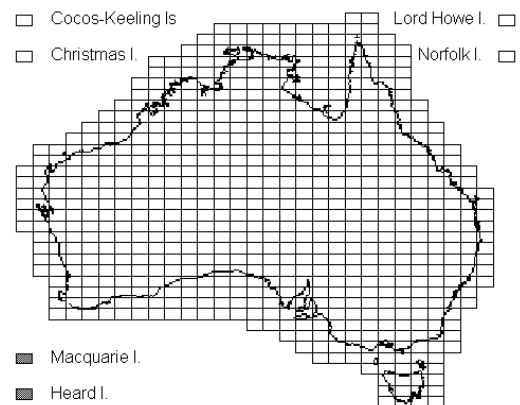
8 Present range and abundance

As above. On Heard I., approximately 16 colonies with 10,000-12,000 pairs in 1955 (Downes *et al.*, 1959), with possible increase by 1980s (E. Woehler). On Macquarie I., 53 colonies with 4,700 pairs (Marchant and Higgins, 1990), also possibly increasing (Ellis *et al.*, 1998). At extralimital colonies there have been decreases of up to 67% (A. Stattersfield).

9 Ecology

Gentoo Penguins nest on a wide range of ice-free surfaces, breeding site possibly being determined by access to shallow feeding grounds. They feed

principally on fish and some euphausiids (Marchant and Higgins, 1990, Robinson and Hindell, 1996).



10 Threats

During the breeding season, nesting birds are easily disturbed, on Macquarie I., some chicks are taken by cats. Also, this naive population is likely to have little resistance to introduced disease. At sea, some birds are killed by ingesting plastics, and commercial fishing near the islands may affect the species. The most likely long-term threat is the effect of climate change on food supply (Ellis *et al.*, 1998).

11 Information required

11.1 Determine trends in numbers.

12 Recovery objectives

12.1 A stable or increasing population over a period of decades.

13 Actions completed or under way

13.1 Opportunistic monitoring of breeding population size and success is continuing.

13.2 Feral animal control is ongoing.

14 Management actions required

None.

15 Organisations responsible for conservation

Australian Antarctic Division, Environment Australia
Tasmanian Parks and Wildlife Service.

16 Other organisations involved

Antarctic Science Advisory Committee.

17 Staff and financial resources required for recovery to be carried out

Staff resources required 2001-2005 1.0 Technical Officer (monitoring)¹
 1.0 Technical Officer (ferals)¹

Financial resources required 2001-2005

| Action | Conservation agencies | Other funding sources | Total |
|--|-----------------------|-----------------------|------------------|
| <i>Monitoring breeding sub-populations</i> ¹ | \$21,900 | \$0 | \$21,900 |
| <i>Feral animal control on Macquarie I.</i> ¹ | \$277,900 | \$0 | \$277,900 |
| Total | \$299,800 | \$0 | \$299,800 |

¹ Costs of Macquarie I. monitoring and feral animal control shared among 19 threatened taxa; Heard I. monitoring divided among 17 threatened taxa

18 Bibliography

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- Marchant, S. and Higgins, P. J. (eds) 1990. *The Handbook of Australian, New Zealand and Antarctic Birds*. Oxford University Press, Melbourne.
- Robinson, S. A. and Hindell, M. A. 1996. Foraging ecology of Gentoo Penguins *Pygoscelis papua* at Macquarie Island during the period of chick care. *Ibis* 138:722-31
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