

RECOVERY OUTLINE

Royal Penguin

1	Family	Spheniscidae
2	Scientific name	<i>Eudyptes schlegeli</i> Finsch, 1876
3	Common name	Royal Penguin
4	Conservation status	Vulnerable: D2

5 Reasons for listing

The species has only two breeding locations (Vulnerable: D2), and its population could decrease suddenly should conditions change.

	Estimate	Reliability
Extent of occurrence	2,000,000 km ²	low
trend	stable	high
Area of occupancy	60 km ²	medium
trend	stable	high
Population size:	1,700,000	low
trend	stable	low
No. of sub-populations	2	high
Largest sub-population	1,700,000	medium
Generation time	12 years	low

6 Intraspecific taxa

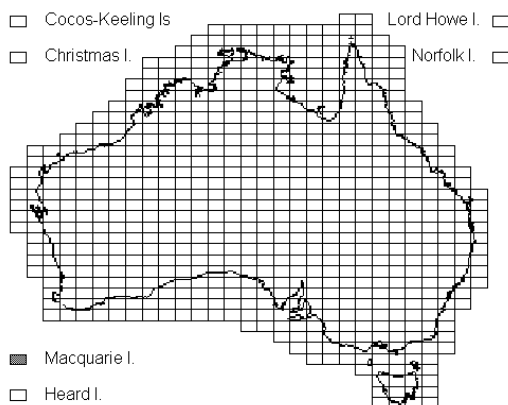
None described, though once considered conspecific with *E. chrysolophus* (Marchant and Higgins, 1990).

7 Past range and abundance

Confined to Macquarie I., nearby Bishop and Clerk Is and surrounding waters, although small numbers of similar looking birds sometimes seen at other subantarctic islands (Marchant and Higgins, 1990).

8 Present range and abundance

As above. In 1984-5, about 850,000 pairs on Macquarie I., with an earlier count of over 1,000 pairs on Bishop and Clerk Is (Marchant and Higgins, 1990). One colony on Macquarie I. exceeds 100,000 individuals (G. Copson).



9 Ecology

Royal Penguins nest in huge colonies on bare, level, pebbly, rocky or sandy ground (Hull and Wilson,

1996). When breeding, they feed on euphausiids, fish and squid (Hindell, 1988, Hull, 1999a), travelling to the polar frontal zone (Hull, 1999b), but ecology and movements during the winter, when they are away from the island, are unknown (Marchant and Higgins, 1990).

10 Threats

Royal Penguins were formerly hunted for oil in the 19th and early 20th century (Sparks and Soper, 1967, Rounsevell and Brothers, 1984). Although cats and rats take eggs and young on Macquarie I., it is not known if this is at significant levels. The other terrestrial threat is from disease brought by visitors (C. Hull, O. Huyser). Marine threats are fishing, which may alter the abundance of food, and pollution, including oil from boats and plastic debris, which can be ingested (Ellis *et al.*, 1998, C. Hull). 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.
- 11.2 Establish demographic parameters, particularly survival of different age classes.
- 11.3 Monitor impact of marine debris ingestion.
- 11.4 Determine extent of overlap between fishing grounds and foraging areas.
- 11.5 Determine rates and direction of change in sea temperature and other oceanographic variables, and their effect on prey distributions.

12 Recovery objectives

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

13 Actions completed or under way

- 13.1 Studies of foraging ecology and breeding biology have been completed.
- 13.2 Monitoring of breeding population size and success is continuing.
- 13.3 Feral animal control is ongoing.
- 13.4 Tourists on breeding islands are managed to prevent disturbance.

14 Management actions required

14.1 Limit further construction on breeding islands.

15 Organisations responsible for conservation

Tasmanian Parks and Wildlife Service.

16 Other organisations involved

Antarctic Science Advisory Committee, University of Tasmania.

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

<i>Staff resources required 2001-2005</i>	1.0	<i>Technical Officer (monitoring)¹</i>
	1.0	<i>Technical Officer (ferals)¹</i>

Financial resources required 2001-2005

<i>Action</i>	<i>Conservation agencies</i>	<i>Other funding sources</i>	<i>Total</i>
<i>Monitoring breeding sub-populations¹</i>	\$15,800	\$0	\$15,800
<i>Feral animal control¹</i>	\$277,900	\$0	\$277,900
<i>Research on plastics, parasites, disease and genetics²</i>	\$7,000	\$7,000	\$14,000
<i>Total</i>	\$300,700	\$7,000	\$307,700

¹ Costs of monitoring and feral animal control shared among 19 threatened taxa (studies of oceanographic change not costed)

² Costs of research shared among 2 penguins, 2 giant-petrels, Wandering, Black-browed, Grey-headed, Shy and Light-mantled Albatrosses

18 Bibliography

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