RECOVERY OUTLINE

Christmas Island Hawk-Owl

1	Family	Strigidae
2	Scientific name	*Ninox natalis* Lister, 1889
3	Common name	Christmas Island Hawk-Owl
4	Conservation status	Critically Endangered: A2ce

5 Reasons for listing

A decline of more than 80% is predicted over the next three generations (30 years) for this species (Critically Endangered: A2) as a result of a decline in habitat quality (c) and the current rate of spread of introduced ants (e).

	Estimate	*Reliability*
Extent of occurrence	*137 km²*	*high*
trend	*stable*	*high*
Area of occupancy	*100 km²*	*high*
trend	*decreasing*	*high*
No. of breeding birds	*1,200*	*high*
trend	*decreasing*	*medium*
No. of sub-populations	*1*	*high*
Generation time	*10 years*	*low*

6 Infraspecific taxa

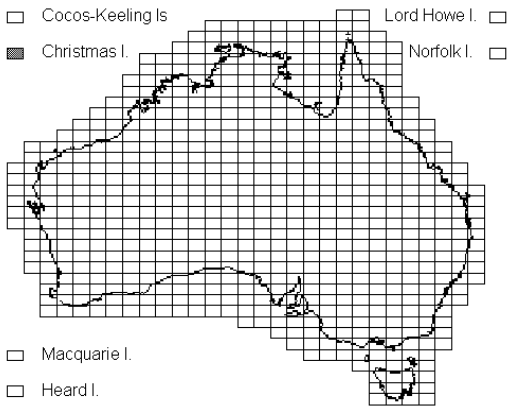
None described. Although the Christmas Island Hawk-Owl has previously been considered a subspecies of *N. squamipila* (Schodde and Mason, 1997), its specific status has recently been confirmed (Norman *et al.*, 1998).

7 Past range and abundance

Confined to Christmas I., Indian Ocean.

8 Present range and abundance

Range as above. About a quarter of the suitable habitat has been cleared for mining (Hill and Lill, 1998a).



9 Ecology

Christmas Island Owls occupy permanent territories in all forest types on the island, with highest densities in primary forest and lowest in post-mining regrowth. They are absent from un-regenerated mine sites (Hill, 1997, Hill and Lill, 1998a). They mainly eat insects, but also take small vertebrates including introduced Black Rats *Rattus rattus* (Hill and Lill, 1998b).

10 Threats

Forest clearance, while no longer permitted, has destroyed 25% of the species 'habitat, but the greatest current threat is from the introduced Yellow Crazy Ant *Anoplolepis gracilipes*. After spreading slowly, this species now occupies about 15-18% of the island (D. Slip), and may still be spreading rapidly. These ants may prey directly on nestlings and, by killing the dominant life-form, the Red Crab *Gecaroidea natalis*, and tending scale insects, alter the whole ecology of the island (O Dowd *et al.*, 1999). There is a small risk of introduced avian disease, for which the exotic Java Sparrow *Lonchura oryzivora* and Tree Sparrow *Passer montanus* could act as reservoirs (Hill, 1997).

11 Information required

11.1 Refine techniques for controlling crazy ants.

12 Recovery objectives

12.1 Involve all stakeholders in recovery.

12.2 Maintain or increase population, as verified by monitoring.

12.3 Protect all breeding habitat of this species from clearing and degradation, even if location of nest sites within that habitat unknown.

12.4 Control Yellow Crazy Ant.

12.5 Produce a timetable for rehabilitating priority minefields and commencement of rehabilitation using that timetable.

13 Actions completed or under way

13.1 Detailed research on owl ecology has been undertaken and a Draft Recovery Plan has been prepared (Hill, 1997).

13.2 A three year research program has been initiated and staff have been dedicated to ant control.

14 Management actions required

14.1 Negotiate with all landowners to ensure protection of primary forests outside the national park.

14.2 Review of the Christmas Island Quarantine Service.

14.3 Conduct a community education program.

14.4 Rainforest rehabilitation of priority minefields.

14.5 Control the abundance and spread of Yellow Crazy Ant.

14.6 Pending control, establish a captive population with the aim of reintroduction once ant control has been achieved.

14.7 Form a Recovery Team and implement the Recovery Plan.

15 Organisations responsible for conservation

Environment Australia (including Wildlife Australia Branch; Parks Australia North; Christmas Island Rainforest Rehabilitation Program).

16 Other organisations involved

Australasian Raptor Association of Birds Australia, Christmas Island Phosphates Pty Ltd, Christmas Island Shire Council, Museum of Victoria, Australian zoos.

17 Staff and financial resources required for recovery to be carried out [1]

Staff resources required 2001-2005

1.0	*Project Officer (crazy ants)* [2]
4.0	*Technical Officer (crazy ants)* [2]
0.1	*Technical Officer (monitoring)*
0.1	*Education officer* [3]

Financial resources required 2001-2005

Action	*Conservation agencies*	*Other funding sources*	*Total*
Negotiate habitat protection	$12,500	$0	$12,500
Eradication of exotic sparrows	$8,500	$0	$8,500
Institute education program [3]	$10,000	$0	$10,000
Rehabilitation of vegetation [3,4]	$81,400	$940,000	$1,021,400
Control crazy ants [2]	$250,000	$12,000	$262,000
Establish a captive population [5]	$10,000	$50,000	$60,000
Recovery Team operation [3]	$3,500	$0	$3,500
Total	$375,900	$1,002,000	**$1,377,900**

1 Based largely on Hill (1997)
2 Costs shared with all 10 threatened Christmas I. taxa
3 Costs shared among Abbott's Booby, Christmas Island Frigatebird, Christmas Island Owl and Christmas Island Goshawk
4 Major funding derived from levy which varies from year to year depending on amount of phosphate exported
5 Costs shared among Brown Goshawk (Christmas I.), Christmas Island Imperial-Pigeon, Emerald Dove (Christmas I.), Christmas Island Owl, Island Thrush (Christmas I.), Christmas Island White-eye

18 Bibliography

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