

RECOVERY OUTLINE

# Emerald Dove (Christmas Island)

1	Family	Columbidae
2	Scientific name	<i>Chalcophaps indica natalis</i> Lister, 1889
3	Common name	Emerald Dove (Christmas Island)
4	Conservation status	Critically Endangered: A2ce

5 Reasons for listing

A decrease in population size of this subspecies of over 80% is expected in the next three generations (12 years; Critically Endangered: A2) because of a decline in habitat quality (c) and the current rate of spread of introduced ants (e).

	Estimate	Reliability
Extent of occurrence	137 km <sup>2</sup>	high
trend	stable	high
Area of occupancy	100 km <sup>2</sup>	high
trend	decreasing	medium
No. of breeding birds	5,000	low
trend	decreasing	medium
No. of sub-populations	1	high
Generation time	5 years	low

6 Intraspecific taxa

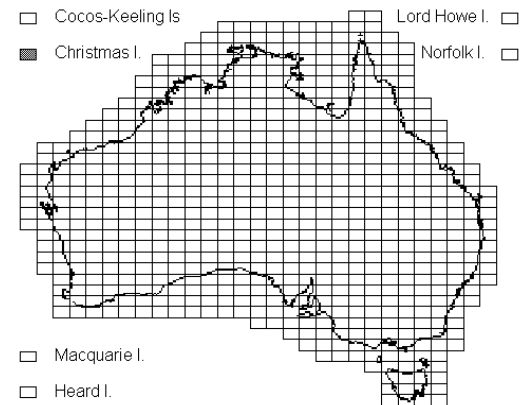
*C. i. rogersi* (eastern Australia, Lord Howe and Norfolk Is) and *C. i. longirostris* (north-west Australia and Northern Territory) are both Least Concern. There are about eight other subspecies in south-east Asia and the south-west Pacific. Global status of the species is Least Concern.

7 Past range and abundance

Confined to Christmas I., Indian Ocean (Stokes, 1988; Schodde and Mason, 1997).

8 Present range and abundance

Range as above. Area of occupancy reduced by one third by clearance for phosphate mining (Stokes, 1988).



9 Ecology

On Christmas I., Emerald Doves occupy most forested habitats, including settlements, regrowth forest and terraces (Stokes, 1988). They usually feed on the ground, mostly on fruit, build low, flimsy stick nests in which to lay 2 eggs (Higgins and Davies, 1997).

10 Threats

Although the dove has withstood cat and rat predation around the settlements, and possibly hunters (Stokes, 1988), all native Christmas I. species are threatened by the Yellow Crazy Ant *Anoplolepis gracilipes*, which has occupied an estimated 15-18% of the island (D. Slip), and may still be spreading rapidly. The ants have been filmed killing Emerald Dove nestlings, and may alter the whole ecology of the island by killing the super-numerous Red Crab *Gecaroidea natalis*, as well as by farming scale insects that damage trees (O'Dowd *et al.*, 1999, D. O'Dowd). Flow-on effects could include the spread of introduced Black Rats *Rattus rattus* into areas formerly occupied by crabs.

11 Information required

11.1 Refine techniques for controlling Yellow Crazy Ants.

12 Recovery objectives

12.1 Maintain existing population.

12.2 Control Yellow Crazy Ant.

13 Actions completed or under way

13.1 Contingency plans are being developed to establish a captive population on mainland Australia.

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

14 Management actions required

14.1 Control abundance and spread of the Yellow Crazy Ant.

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

15 Organisations responsible for conservation  
Environment Australia (including Wildlife Australia Branch; Parks Australia North; Christmas Island Rainforest Rehabilitation Program).

16 Other organisations involved  
Birds Australia, Christmas Island Phosphates Pty. Ltd., Christmas Island Shire Council, Monash University, Australian zoos.

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

<i>Staff resources required 2001-2005</i>	1.0	<i>Project Officer (crazy ants)<sup>1</sup></i>
	4.0	<i>Technical Officer (crazy ants)<sup>1</sup></i>
<i>Financial resources required 2001-2005</i>		

<i>Action</i>	<i>Conservation agencies</i>	<i>Other funding sources</i>	<i>Total</i>
<i>Control crazy ants<sup>1</sup></i>	\$250,000	\$12,000	\$262,000
<i>Establish a captive population<sup>2</sup></i>	\$10,000	\$50,000	\$60,000
<b><i>Total</i></b>	<b>\$260,000</b>	<b>\$62,000</b>	<b>\$322,000</b>

<sup>1</sup> Costs shared with all 10 threatened Christmas I. taxa

<sup>2</sup> Costs shared among Brown Goshawk (Christmas I.), Christmas Island Imperial-Pigeon, Emerald Dove (Christmas I.), Christmas Island Hawk-Owl, Island Thrush (Christmas I.), Christmas Island White-eye

18 Bibliography

Higgins, P. J. and Davies, S. J. J. F. (eds) 1996. *Handbook of Australian, New Zealand and Antarctic Birds. Vol. 3. Snipe to Pigeons*. Oxford University Press, Melbourne.

O'Dowd, D. J., Green, P. T. and Lake, P. S. A. 1999. Status, impact and recommendations for research and management of exotic invasive ants in Christmas Island National Park. Report to Environment Australia.

Schodde, R. and Mason, I. J. 1997. Aves (Columbidae to Coraciidae). *Zoological Catalogue of Australia. Vol. 37.2*. W. W. K. Houston and A. Wells (eds). CSIRO Publishing, Melbourne.

Stokes, T. 1988. A review of the birds of Christmas Island, Indian Ocean. *Australian National Parks and Wildlife Service Occasional Paper* 16.

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