RECOVERY OUTLINE

Gouldian Finch

1	Family	Ploceidae
2	Scientific name	*Erythrura gouldiae* (Gould, 1844)
3	Common name	Gouldian Finch
4	Conservation status	Endangered: C2b

5 Reasons for listing

The population size of this species is conservatively estimated to be about 2,500 mature individuals at the start of breeding season, with all individuals in the same genetic sub-population and continuing to decline (Endangered: C2b). If the population is significantly fragmented, then no sub-population indisputably contains more than 250 mature individuals (so could be C2a).

	Estimate	*Reliability*
Extent of occurrence	*100,000 km^2*	*medium*
trend	*decreasing*	*medium*
Area of occupancy	*10,000 km^2*	*low*
trend	*decreasing*	*high*
No. of breeding birds	*2,500*	*low*
trend	*decreasing*	*high*
No. of sub-populations	*1*	*medium*
Generation time	*2 years*	*medium*

6 Infraspecific taxa

None recognised. Initial genetic work has found no genetic variation across range (Heslewood, *et al*., 1998). Further analysis with more sensitive genetic probes has begun (M. Elphinstone).

7 Past range and abundance

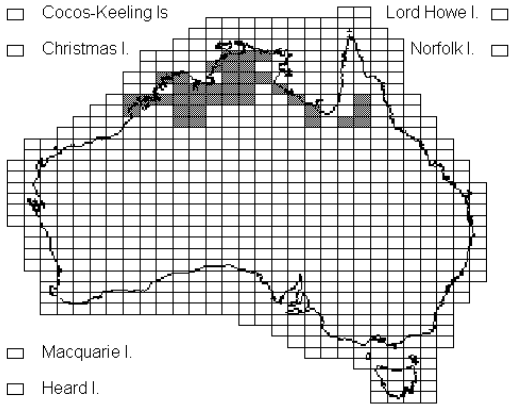
Northern Australia from Cape York Peninsula through north-west Queensland and the northern Northern Territory to the Kimberley Region of Western Australia (Blakers *et al*, 1984, Dostine, 1998, Franklin, 1999).

8 Present range and abundance

Known to occur regularly at a few sites in Queensland, with a few incidental sightings. More numerous in the Northern Territory and Western Australia, but records also scattered (Evans and Bougher, 1987, Dostine, 1998). Evidence of a continuing decline (Franklin, 1999), even at best-known site near Katherine (M. Lewis).

9 Ecology

Gouldian Finches live in open tropical woodland that has a grassy understorey, often in hilly areas. They nest exclusively in tree hollows, the species of tree used varying between locations: Snappy Gum *Eucalyptus brevifolia* used in western, and Territory Salmon Gum *E. tintinnans* in eastern Northern Territory (Tidemann *et al*., 1992a). Clutch size averages 5.2, and pairs may raise several clutches in a season, but productivity averages 1.5 fledglings per pair (Tidemann *et al*., 1999). Gouldian Finches feed almost exclusively on grass seed. During the dry season, they feed on annual grasses such as *Sorghum*. Various perennial grasses are taken through the wet season (Tidemann, 1989, Dostine, 1998).



10 Threats

Infection with a parasitic mite *Sternostoma tracheacolum* (Tidemann *et al*., 1992b, Bell, 1996) was long thought to be one of the principal reasons for decline, but it is now considered that any increased mortality from parasites is probably indicative of a broader change at the landscape level that has affected a range of granivore species (Dostine, 1998, Franklin, 1999). Mining may also adversely affect birds at a local scale (M. Lewis) and trapping may have had a local effect in the past (Dostine, 1998). Availability of nesting habitat and low breeding success are not thought to be limiting (Tidemann *et al*., 1999). Cattle grazing and altered fire regimes are thought the most likely landscape processes to have affected the species, either because cattle prevent grass from producing seed that is essential to the finch, or because the finches need patchy burning and the fire history of the landscape has become too uniform (Dostine, 1998).

11 Information required

11.1 Characterise habitat at a regional scale using GIS analysis.

11.2 Determine relationship between burning pattern, grazing and Gouldian Finch survival.

11.3 Increase understanding of diet and foraging ecology in relation to patterns of resource availability and at a variety of sites.

11.4 Analyse feeding and breeding habitat at a regional scale.

12 Recovery objectives

12.1 Stabilise or increase population size as a result of remedial management action at three key sites.

13 Actions completed or under way

13.1 A Recovery Plan has been completed.

13.2 Regional Operations Groups have been established in all three states.

13.3 A database of all known records of the Gouldian Finch has been collated and is being maintained.

13.4 Patterns of distribution, habitats, potential threats and conservation status of savanna granivorous birds have been reviewed.

13.5 Persistence at sites throughout known range is being monitored.

13.6 Techniques for habitat rehabilitation are being developed.

13.7 The project is being coordinated through a Recovery Team.

14 Management actions required

14.1 Undertake strategic surveys of suitable habitat.

14.2 Obtain indices of population size at key sites.

14.3 Liaise with land managers about appropriate land management.

14.4 Manage significant sites appropriately.

14.5 Develop management guidelines for land managers.

14.6 Promote the Recovery Program.

15 Organisations responsible for conservation

Environment Australia, Parks and Wildlife Commission of the Northern Territory, Queensland Parks and Wildlife Service, Western Australian Department of Conservation.

16 Other organisations involved

World Wide Fund for Nature (Australia), Jawoyn Association, Birds Australia, Department of Defence, Cooperative Research Centre for Sustainable Development of Tropical Savannas, Northern Territory University, Threatened Bird Network, Threatened Species Network, fire management agencies, bird-watching societies, pastoralists, other indigenous groups.

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

Staff resources required 2001-2005

1.0	*Project Officer*
1.5	*Technical Officer*

Financial resources required 2001-2005

Action	*Conservation agencies*	*Other funding sources*	*Total*
Characterise habitat at a regional scale	$11,300	$1,000	$12,300
Determine relationship between burning pattern, grazing and Gouldian Finch survival	$198,900	$61,200	$260,100
Increase understanding of diet and foraging ecology	$75,500	$18,200	$93,700
Analyse feeding and breeding habitat	$29,000	$10,000	$39,000
Develop techniques for habitat rehabilitation	$0	$30,000	$30,000
Liaise with land managers about appropriate land management.	$11,400	$41,500	$52,900
Undertake strategic surveys of suitable habitat	$37,000	$92,000	$129,000
Obtain indices of population size at key sites	$90,000	$33,000	$123,000
Monitor persistence at sites throughout current range	$55,000	$25,000	$80,000
Manage significant sites in an appropriate manner	$167,300	$36,000	$203,300
Develop management guidelines for land managers	$15,600	$0	$15,600
Promote the Recovery Program	$35,000	$20,000	$55,000
Operate the Recovery Team and evaluate performance	$55,000	$0	$55,000
Total	$781,000	$367,900	**$1,148,900**

1 Based on Dostine (1998)

18 Bibliography

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Comments received from

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