

## RECOVERY OUTLINE

# Regent Honeyeater

1	Family	Meliphagidae
2	Scientific name	<i>Xanthomyza phrygia</i> (Shaw, 1794)
3	Common name	Regent Honeyeater
4	Conservation status	Endangered: C2b

### 5 Reasons for listing

There are only 1,500 individuals of this subspecies in a single sub-population, a number that is thought still to be decreasing (Endangered: C2b).

	Estimate	Reliability
Extent of occurrence	300,000 km <sup>2</sup>	high
trend	decreasing	medium
Area of occupancy	250 km <sup>2</sup>	low
trend	decreasing	medium
No. of breeding birds	1,500	low
trend	decreasing	medium
No. of sub-populations	1	medium
Generation time	5 years	low

### 6 Intraspecific taxa

None described.

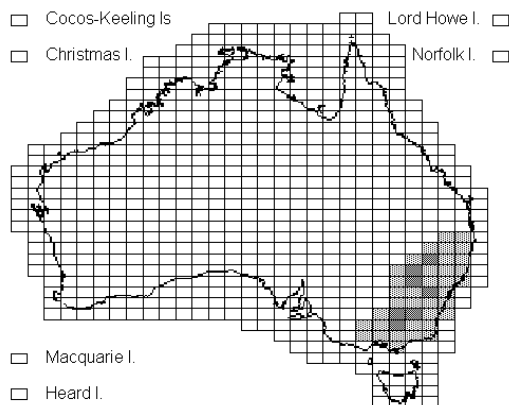
### 7 Past range and abundance

Throughout south-east Australia from the Adelaide, S. A. to Dalby, Qld, and from the coast, inland to the western foothills of the Great Dividing Ra. (Franklin *et al.*, 1989). Most breeding records from near-coastal south-eastern Australia and adjacent inland slopes of Great Dividing Ra. Post-breeding dispersal to the north and west, from the Mt Lofty Ra., S. A. to about Dalby, Qld. Flocks of hundreds of birds were regularly recorded (Franklin *et al.*, 1989).

### 8 Present range and abundance

Breeding in a few areas in north-eastern Victoria (Chiltern district, Killawarra State Forest, Benalla district), and along western slopes of Great Dividing Ra. in New South Wales (Bundarra-Barraba district, Capertee valley). Occasionally, breeding elsewhere (Franklin *et al.*, 1989, Schodde *et al.*, 1992), including Mudgee District, Warrumbungle National Park and Australian Capital Territory. Use of Warrumbungle National Park and Killawarra State Forest may have declined (Menkhorst *et al.*, 1998). Probably extinct in South Australia, and vagrant to western Victoria and Gippsland (Franklin and Menkhorst, 1988, Menkhorst *et al.*, 1998). Records in ACT have declined since 1960s (P. Ormay). Numbers fluctuate greatly between years and between sites. Movements outside breeding season, particularly in autumn, are poorly understood. Population size over two sites (Capertee Valley and Bundarra-Barraba region) estimated at maximum of

1,000 birds in 1997, but there were far fewer birds and very little breeding in 1998. There are minor behavioural differences between the three main areas, but movement of a colour-banded bird from Capertee to Canberra and lack of genetic differences between sites (Norman and Christidis, 1998) suggest the species has a single sub-population.



### 9 Ecology

Regent Honeyeater are mostly recorded in box-ironbark eucalypt associations. They prefer the wettest, most fertile sites within these associations, such as along creek flats, broad river valleys and foothills. In New South Wales, riparian forests of River Oak *Casuarina cunninghamiana*, those with Needle-leaf Mistletoe *Amyema cambagei*, are also important for feeding and breeding. At times of food shortage the birds also use other woodland types and wet lowland coastal forest dominated by Swamp Mahogany *Eucalyptus robusta* or Spotted Gum *E. maculata* (Franklin *et al.*, 1989, Ley and Williams, 1992, Webster and Menkhorst, 1992, Geering and French, 1998, Oliver *et al.*, 1999). Nectar is the principal food, but sugary exudates from insects are also used, and insects are essential for breeding (Oliver, 1998, 2000). Mugga Ironbark *E. sideroxylon*, White Box *E. albens*, Yellow Box *E. melliodora* and Yellow Gum *E. leucoxydon* are particularly important food trees. Regent Honeyeaters build cup nests, and usually lay 2-3 eggs. Breeding success does not appear to be limiting (Ley and Williams, 1992, 1994, 1998, Geering and French, 1998, Oliver *et al.*, 1998). However, absence of breeding at some sites in some years indicates that the birds either fail to nest, or shift elsewhere to breed (Geering and French, 1998, Oliver *et al.*, 1998).

## 10 Threats

Clearance has destroyed about 75% of the Regent Honeyeater's habitat, particularly the most-favoured vegetation communities. The remainder is fragmented, and continues to be degraded by removal of the larger trees for posts, sleepers and firewood, and by ongoing declines in tree health (Robinson and Traill, 1996, Oliver *et al.*, 1999, B. J. Traill). Fragmentation has apparently advantaged more aggressive honeyeaters, particularly the Noisy Miner *Manorina melanocephala* which may be displacing the Regent Honeyeater (Franklin *et al.*, 1989, Grey *et al.*, 1998).

## 11 Information required

- 11.1 Determine movement patterns, particularly post breeding, and the degree of isolation between breeding colonies.
- 11.2 Determine differences in resource utilisation between northern N. S. W. and Vic.

## 12 Recovery objectives

- 12.1 Ensure the species persists in the wild.
- 12.2 Achieve a down-listing from nationally endangered to vulnerable by stabilising the population and securing habitat extent and quality in the main areas of occupancy.
- 12.3 Achieve increasing reporting rates (5% per annum) in areas previously used regularly.

## 13 Actions completed or under way

- 13.1 Surveys of range and abundance are conducted annually.
- 13.2 Detailed research has been conducted on the breeding biology at several sites.
- 13.3 Restrictions have been placed on grazing and timber extraction at some important sites.
- 13.4 Extensive replanting of habitat trees has occurred in north-east Vic. and central N. S. W.
- 13.5 A captive colony has been established.
- 13.6 A Recovery Plan has been prepared which is being implemented by a Recovery Team and local Operations Groups.
- 13.7 The composition, influence and resources of Operations Groups in the four key regions are being expanded so that they are able to implement regional works plans.

## 14 Management actions required

- 14.1 Protect woodland types in which Regent Honeyeaters have been recorded regularly from activities such as clearing, logging and

firewood collection, and monitor compliance biennially.

- 14.2 Protect all regularly-used Regent Honeyeater sites on public land in secure conservation reserves.
- 14.3 Manage at least 15% of the pre-European area of all woodland communities on public or private land for nature conservation, using incentives where necessary.
- 14.4 Initiate a population monitoring program at the three main breeding areas
- 14.5 Use existing sightings database and Birds Australia Atlas Project to determine trends.
- 14.6 Conduct a public education program about the species and its requirements, aimed particularly at developing habitat management partnerships with land owners within the range of the species.
- 14.7 Establish an educational Regent Honeyeater exhibit at Taronga Zoo.
- 14.8 To act as insurance against the demise of the wild population, increase the captive population to at least three institutions that are accredited by the Australian Regional Association of Zoological Parks and Aquaria.
- 14.9 Conduct trials of hard-release techniques.
- 14.10 Complete the captive husbandry manual and a guide to aging and sexing Regent Honeyeaters.

## 15 Organisations responsible for conservation

Environment ACT, New South Wales National Parks and Wildlife Service, Queensland Parks and Wildlife Service, Victorian Department of Natural Resources and Environment.

## 16 Other organisations involved

Birds Australia, other bird-watching societies, Environment Australia, Australian Regional Association of Zoological Parks and Aquaria, Australian Passerine Taxon Advisory Group, Greening Australia, Bundarra-Barraba Operations Group, Capertee Valley Operations Group, Central Coast Operations Group, North-east Victoria Operations Group, Adelaide Zoo, Taronga Zoo, Latrobe University, University of New England, World Wide Fund for Nature (Australia), road transport authorities, Rural Lands Protection Boards, Trust for Nature, Parks Victoria, Queensland Department of Primary Industry, State Forests of New South Wales, Landcare groups, shire councils, private land-holders.

## 17 Staff and financial resources required for recovery to be carried out<sup>1</sup>

Staff resources required 2001-2005	1.0	Project Officer
	3.0	Operations Group facilitators
	1.0	Contract biologist

### Financial resources required 2001-2005

Action	Conservation agencies	Other funding sources	Total
Expand Operations Groups	\$617,500	\$21,000	\$638,500
Prepare regional guidelines and incorporate into planning	\$52,000	\$54,600	\$106,600
Population monitoring at breeding sites	\$92,500	\$45,000	\$137,500
Use existing data to determine trends	\$32,000	\$0	\$32,000
Investigate movement patterns	\$135,000	\$25,000	\$160,000
Investigate impact of Noisy Miner	\$51,000	\$0	\$51,000
Determine regional variation in resource utilisation	\$5,000	\$0	\$5,000
Public education	\$94,000	\$136,000	\$230,000
Establish zoo exhibit	\$0	\$20,000	\$20,000
Maintain viable captive population and complete manual	\$2,000	\$81,300	\$83,300
Conduct trials of hard-release techniques	\$37,000	\$8,000	\$45,000
Recovery coordinator and management of recovery team	\$569,700	\$67,400	\$637,100
<b>Total</b>	<b>\$1,687,700</b>	<b>\$458,300</b>	<b>\$2,146,000</b>

<sup>1</sup> All costings from Menkhorst *et al.* (1998).

## 18 Bibliography

- Franklin, D. C. and Menkhorst, P. W. 1988. A history of the Regent Honeyeater in South Australia. *S. Aust. Ornithol.* 30:141-145.
- Franklin, D. C., Menkhorst, P. W. and Robinson, J. L. 1989. Ecology of the Regent Honeyeater *Xanthomyza phrygia*. *Emu* 89:140-154.
- Geering, D. and French, K. 1998. Breeding biology of the Regent Honeyeater *Xanthomyza phrygia* in the Capertee Valley, New South Wales. *Emu* 98:104-116.
- Grey, M. J., Clarke, M. F. and Loyn, R. H. 1998. Influence of the Noisy Miner *Manorina melanocephala* on avian biodiversity and abundance in remnant Grey Box woodland. *Pac. Conserv. Biol.* 4:55-69.
- Ley, A. J. and Williams, M. B. 1992. The conservation status of the Regent Honeyeater near Armidale, New South Wales. *Aust. Bird Watcher* 14:277-281.
- Ley, A. J. and Williams, M. B. 1994. Breeding behaviour and morphology of the Regent Honeyeater *Xanthomyza phrygia* near Armidale, New South Wales. *Aust. Bird Watcher* 15:366-376.
- Ley, A. J. and Williams, M. B. 1998. Nesting of the Regent Honeyeater *Xanthomyza phrygia* near Armidale, New South Wales. *Aust. Bird Watcher* 17:328-336.
- Menkhorst, P., Schedvin, N. and Geering, D. 1998. Regent Honeyeater Recovery Plan 1999-2003. Department of Natural Resources and Environment, Melbourne.
- Norman, J. and Christidis, L. 1998. Genetic variation in the Regent Honeyeater. Report to the Regent Honeyeater Recovery Team, Melbourne.
- Oliver, D. L. 1998. Breeding behaviour of the endangered Regent Honeyeater *Xanthomyza phrygia* near Armidale, N. S. W. *Aust. J. Zool.* 98:97-103.
- Oliver, D. L. 2000. Foraging behaviour and resource selection of the Regent Honeyeater *Xanthomyza phrygia* in northern New South Wales. *Emu* 100:12-30.
- Oliver, D. L., Ley, A. J. and Williams, B. 1998. Breeding success and nest site selection of the Regent Honeyeater *Xanthomyza phrygia* near Armidale, New South Wales. *Emu* 98:97-103.
- Oliver, D. L., Ley, A. J., Ford, H. A. and Williams, B. 1999. Habitat of the Regent Honeyeater *Xanthomyza phrygia* and the value of the Bundarra-Barraba region for the conservation of avifauna. *Pac. Conserv. Biol.* 5:224-239.
- Robinson, D. and Traill, B. J. 1996. Conserving woodland birds in the wheat and sheep belts of southern Australia. *RAOU Conservation Statement* 10.
- Schodde, R., Mason, I. J. and Christidis, L. 1992. Regional, age and sexual differentiation in the Regent Honeyeater *Xanthomyza phrygia*. *Corella* 16:23-28.
- Webster, R. and Menkhorst, P. 1992. The Regent Honeyeater (*Xanthomyza phrygia*): population status and ecology in Victoria and New South Wales. *Arthur Rylah Inst. Tech. Rep. Ser.* 126, Department of Conservation and Environment, Melbourne.

### Comments received from

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