

## RECOVERY OUTLINE

# Australasian Bittern

1	Family	Ardeidae
2	Scientific name	<i>Botaurus poiciloptilus</i> (Wagler, 1827)
3	Common name	Australasian Bittern
4	Conservation status	Vulnerable: C2a

### 5 Reasons for listing

Population contains about 2,500 mature individuals, with no sub-population thought to contain more than 1,000 individuals, and numbers probably still decreasing (Vulnerable: C2a). Given that most of the global population occurs in Australia, global status is also Vulnerable.

Australian population	Estimate	Reliability
Extent of occurrence	1,000,000 km <sup>2</sup>	high
trend	stable	high
Area of occupancy	1,200 km <sup>2</sup>	low
trend	decreasing	high
No. of breeding birds	2,500	low
trend	decreasing	medium
No. of sub-populations	3	medium
Largest sub-population	1,000	low
Generation time	5 years	low
Global population share	85 %	low
Level of genetic exchange	low	medium

### 6 Intraspecific taxa

None described.

### 7 Past range and abundance

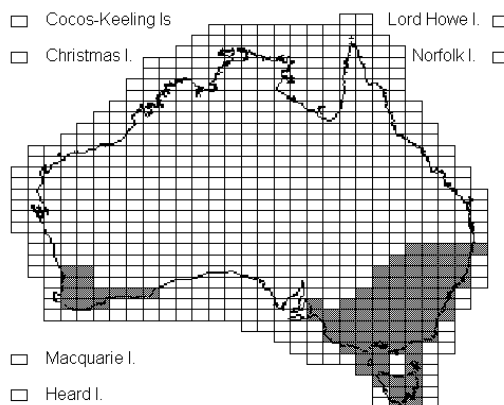
South-eastern Australia: throughout southern and eastern Murray-Darling basin and adjacent coastal areas, from south-east Queensland to south-eastern South Australia, including the Adelaide plains; Tasmania: permanent sub-populations on wetlands on the Derwent and Tamar Rivers, Flinders I., Lake Tiberias and Dulverton (D. Rounsevell); south-western Australia: between Moora and Cape Arid (Marchant and Higgins, 1990). Small sub-populations found in New Zealand and New Caledonia (Marchant and Higgins, 1990).

### 8 Present range and abundance

As above, except Western Australian sub-population now much restricted, with largest concentration in Lake Muir wetlands (Jaensch and Vervest, 1988, Jaensch *et al.*, 1988), few recent Queensland records (Jaensch, 1999), breeding in South Australia confined to south-east, principally Bool Lagoon (Marchant and Higgins, 1990), and absent from some major wetlands in Tasmania that have dried out (S. Bryant).

### 9 Ecology

Australasian Bitterns have fairly narrow habitat preferences, preferring shallow, vegetated freshwater or brackish swamps. They are seen most frequently in exceptionally wet years, possibly because the population size increases and they occupy isolated ephemeral wetlands. Pairs occupy territories containing a mixture of tall and short sedges for breeding (R. Jaensch), though will feed in more open swamp vegetation. Nests are well-constructed cups in which the birds lay 4-5 eggs (Hobbs, 1961, Marchant and Higgins, 1990).



### 10 Threats

The main threats are diversion of water for irrigation (Kingsford and Thomas, 1995, Kingsford, 2000), and salinisation or drainage of permanent swamps. Overgrazing by stock, and inappropriate fire regimes can also reduce habitat suitability (Marchant and Higgins, 1990). Bitterns are able to move between wetlands as suitability changes. However, they have comparatively specialised habitat requirements, so are more sensitive to overall habitat loss than are many wetland species.

### 11 Information required

- 11.1 Develop methods for assessing population trends.
- 11.2 Analyse historical records using frequency of occurrence on bird lists from freshwater wetlands (see technique of Franklin, 1999)

### 12 Recovery objectives

- 12.1 To maintain existing population.

- 12.2 To rehabilitate known former breeding sites.
- 13 Actions completed or under way
- 13.1 Bool Lagoon, S. A., and Lake Muir and nearby wetlands, W. A., are managed to favour the bitterns.
- 14 Management actions required
- 14.1 Identify principal breeding wetlands.
- 14.2 Protect and manage principal breeding wetlands.
- 14.3 Rehabilitate selected former breeding wetlands as part of Landcare.

## 15 Organisations responsible for conservation

Environment Australia, Environment ACT, New South Wales National Parks and Wildlife Service, Queensland Parks and Wildlife Service, South Australian Department of Environment and Heritage, Tasmanian Parks and Wildlife Service, Victorian Department of Natural Resources and Environment, Western Australian Department of Conservation.

## 16 Other organisations involved

Bird-watching societies, Landcare groups, Parks Victoria.

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

<i>Staff resources required 2001-2005</i>	0.2	<i>Project Officer (monitoring techniques)<sup>1</sup></i>
	1.5	<i>Technical Officer (monitoring wetlands)<sup>1</sup></i>
	1.5	<i>Extension Officer (wetlands)<sup>1</sup></i>

### *Financial resources required 2001-2005*

<i>Action</i>	<i>Conservation agencies</i>	<i>Other funding sources</i>	<i>Total</i>
<i>Analysis of historical records<sup>1</sup></i>	\$15,000	\$15,000	\$30,000
<i>Development of monitoring techniques<sup>1</sup></i>	\$30,000	\$0	\$30,000
<i>Identification and monitoring of breeding wetlands<sup>1</sup></i>	\$150,000	\$75,000	\$225,000
<i>Protection and management of breeding wetlands<sup>1</sup></i>	\$150,000	\$75,000	\$225,000
<i>Rehabilitation of selected former breeding wetlands<sup>1</sup></i>	\$30,000	\$120,000	\$150,000
<i>Total</i>	\$375,000	\$285,000	<b>\$660,000</b>

<sup>1</sup> Costs shared among Australasian Bittern and Painted Snipe; the actions will also benefit near threatened wetland species

## 18 Bibliography

Franklin, D. C. 1999. Evidence of disarray amongst granivorous bird assemblages in the savannas of northern Australia, a region of sparse human settlement. *Biol. Conserv.* 90:53-68

Hobbs, J. N. 1961. The birds of south-west New South Wales. *Emu* 61:21-55.

Jaensch, R. P. 1999. The status and importance of Queensland's south-western wetlands. Report to Environmental Protection Agency, Brisbane.

Jaensch, R. P. and Vervest, R. M. 1988. Waterbirds in the eastern Muir wetlands. *RAOU Report* 47.

Jaensch, R. P., Vervest, R. M. and Hewish, M. J. 1988. Waterbirds in nature reserves of south Western Australia 1981-1985 reserve accounts. *RAOU Report* 30.

Kingsford, R. T. 2000. Ecological impacts of dams, water diversions and river management on floodplain wetlands in Australia. *Austral Ecol.* 25:109-127.

Kingsford, R. T. and Thomas, R. F. 1995. The Macquarie Marshes in arid Australia and their waterbirds: A 50-year history of decline. *Environmental Management* 19:867-878.

Marchant, S. and Higgins, P. J. (eds) 1990. *The Handbook of Australian, New Zealand and Antarctic Birds*. Oxford University Press, Melbourne.

### Comments received from

Stewart Blackhall, Allan Burbidge, Andrew Burbidge, Roger Jaensch, Richard Loyn, Peter Menkhorst, Peter Mawson.