

RECOVERY OUTLINE

Buff-breasted Button-quail

1	Family	Turnicidae
2	Scientific name	<i>Turnix olivii</i> Robinson, 1900
3	Common name	Buff-breasted Button-quail
4	Conservation status	Endangered: B1+2bcde, C2b

5 Reasons for listing

Records of this species are very few, despite considerable search effort, and suggest that the area of occupancy is only 50 km² (Endangered B1). There is also some evidence of decline in area of occupancy (2b), quality of known habitat (c), number of locations (d) and possibly number of mature individuals (e). Within the known range, there are perhaps 500 mature individuals, a number that is probably decreasing (C2). High mobility of the species suggests that all records come from a single sub-population (b).

	Estimate	Reliability
Extent of occurrence	2,000 km ²	low
trend	decreasing	low
Area of occupancy	50 km ²	low
trend	decreasing	low
No. of breeding birds	500	low
trend	decreasing	low
No. of sub-populations	1	medium
Generation time	3 years	low

6 Intraspecific taxa

None described.

7 Past range and abundance

Endemic to north-eastern Queensland. Recorded near Cooktown, Coen, Musgrave, Iron Range, Mareeba, Mount Molloy, Chillagoe and Ingham (White, 1922a, b, Squire, 1990, Nielsen, 1996, S. Garnett, R. Hobson, L. Nielsen, J. Young).

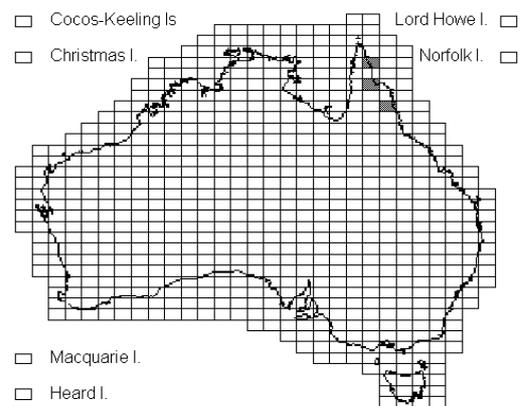
8 Present range and abundance

Possibly as above. No recent records from near Coen or Cooktown, and progressively fewer birds each wet season near Mt Molloy over the last decade. Sporadic dry season records from a tiny area of grassland near Iron Range need confirmation. Records near Musgrave and Chillagoe in 1984 coincided with peak in abundance at Mt Molloy (L. Nielsen).

9 Ecology

The Buff-breasted Button-quail is one of the least known Australian birds. The few records are mostly from patches of sparse grassland, on ridge-tops or stony rises, within rainforest or eucalypt woodland that otherwise has dense grass cover (White, 1922a, b, Squire, 1990, L. Nielsen). The birds appear to feed on seeds and insects (Marchant and Higgins, 1993). They

may be favoured by early wet season fires that keep grassland structure open during breeding season (R. Hobson, L. Nielsen). They build dome nests on the ground and lay 4 eggs that are tended by the male (White, 1922a).



10 Threats

The birds may have been eliminated from much of their range by grazing and inappropriate burning regimes that encourage extensive fires, but promote woody weed invasion (Harrington and Sanderson, 1994, Crowley and Garnett, 1998). Sites near Mt Molloy become overgrown during the wet season, so the birds leave when the grass gets to long, rather than remaining there to breed (L. Nielsen). Some sites in the southern part of the range are in danger of being cleared for agriculture.

11 Information required

- 11.1 Develop a technique for finding species reliably.
- 11.2 Determine habitat requirements.

12 Recovery objectives

- 12.1 To understand and manage factors controlling population.
- 12.2 To establish a population in captivity.
- 12.3 To locate reliably and effectively manage at least one population or sub-population.

13 Actions completed or under way

- 13.1 Searches have been undertaken and the habitat analysed in the Mt Molloy area.

14 Management actions required

- 14.1 Search northern Atherton Tablelands for breeding birds.
- 14.2 Catch at least 10 birds and establish captive population, after determining husbandry using Chestnut-backed Button-quail *Turnix castaneothorax*.
- 14.3 Use captive population to determine optimum habitat structure.
- 14.4 Use early wet season fire on a trial basis to test its suitability as breeding habitat.
- 14.5 Use radiotelemetry to determine habitat use and movements of individuals in wild population.

14.6 Record calls and use to locate other sub-populations.

14.7 Determine effective conservation management strategy for known population.

15 Organisations responsible for conservation
Queensland Parks and Wildlife Service.

16 Other organisations involved
Queensland Department of Natural Resources, Cook Shire Council, Lockhart River Community Council, Mareeba Shire Council, lease-holders, bird-watching societies, Mareeba Wetlands Trust.

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

Staff resources required 2001-2005

0.1	Project Officer
0.5	Technical Officer

Financial resources required 2001-2005

Action	Conservation agencies	Other funding sources	Total
Locate population	\$60,000	\$20,000	\$80,000
Record calls and locate other sub-populations	\$5,000	\$10,000	\$15,000
Establish captive population	\$10,000	\$30,000	\$40,000
Experimentally determine optimum habitat structure	\$25,000	\$10,000	\$35,000
Experimental burning and monitoring	\$60,000	\$15,000	\$75,000
Determine habitat use	\$60,000	\$10,000	\$70,000
Determine conservation management strategy	\$12,000	\$0	\$12,000
Total	\$232,000	\$95,000	\$327,000

18 Bibliography

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Comments received from
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