



Pyrrholaemus brunneus Redthroat

Taxonomy

Pyrrholaemus brunneus Gould, 1841

Current conservation status

Listed as threatened under the *Flora and Fauna Guarantee Act 1988* (SAC 2002).

Categorised as Endangered in the 2013 Advisory list of threatened vertebrate fauna in Victoria (DSE 2013).

Proposed conservation status

Endangered in Victoria

Criteria B2ab(v); C2a(ii)

Species Information

Description and Life History

The Redthroat is a small, generally nondescript bird of inland shrublands. It is generally dark grey-brown above and paler and greyer below, while there is contrasting off-white feathering in front of the eye. The tail is darker and has a prominent white tip, which is particularly obvious in flight. The male has a distinctive rufous throat patch, while in the female this is off-white or cream. They are small shy birds (11.5 cm) that derive their names from the male's rufous throat mark.

They breed in late winter to spring and build a bulky dome-shaped nest with a side entrance from coarse strips of bark, grass and feathers. The nest is located in shrubs or small trees up to one metre above the ground and usually contains two to four eggs. Their diet consists of a wide variety of terrestrial invertebrates (beetles, ants, termites, earwigs, grasshoppers, bugs, caterpillars, butterflies, moths, wasps and spiders) and grass seeds gathered from the ground and amongst low foliage. They are usually solitary or in pairs and males can be very vocal and frequently mimic the calls of other birds. However, it is generally a shy and unobtrusive species, feeding quietly on the ground or in low shrubs, and flying rapidly between shrubs when disturbed.

Generation Length

The generation length the Redthroat is estimated to be 3 to 5 years. This is based on generation lengths used in the Bird Action Plan (Garnett et al. 2011) for other members of the family Acanthizidae. Garnett and Crowley (2000) give a figure of 4 years, however this is with a low degree of reliability, and BirdLife International (2016) gives an estimated figure of 3.2 years. At a workshop to review the Bird Action Plan, held in August 2019, unpublished data suggested a figure of 2.7 years.

Distribution

The Redthroat is endemic to southern mainland Australia, in all states including north-west Victoria and the Northern Territory. It is a sedentary taxon with no known large-scale seasonal movements (Emison et al. 1987). In Victoria it occurred in central Wyperfeld National Park and in far north-western Victoria, but there have been no records in this area for 20 years.

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Habitat

The taxon occurs in tall White Mallee scrub on open flats and heathy sand dunes and Mallee Teatree in dune bases (Emison et al. 1987). It is considered to be an ecological specialist (Office of Environment Heritage NSW 2011).

Threats

Emison et al. (1987, p. 207) noted that: 'Large scale burning, clearing and grazing in the northwest have reduced the amount of mature samphire and scrub habitats and have resulted in a decrease in numbers of Redthroats in Victoria.' As a taxon that feeds and breeds near the ground it probably suffers from fox and cat predation.

IUCN Criteria

Criterion A. Population size reduction. Population reduction (measured over the longer of 10 years or 3 generations) based on any of A1 to A4			
	Critically Endangered	Endangered	Vulnerable
A1	≥ 90%	≥ 70%	≥ 50%
A2, A3, A4	≥ 80%	≥ 50%	≥ 30%

<p>A1 Population reduction observed, estimated, inferred or suspected in the past and the causes of the reduction are clearly reversible AND understood AND ceased.</p> <p>A2 Population reduction observed, estimated, inferred or suspected in the past where the causes of the reduction may not have ceased OR may not be understood OR may not be reversible.</p> <p>A3 Population reduction, projected or suspected to be met in the future (up to a maximum of 100 years) [(a) cannot be used for A3]</p> <p>A4 An observed, estimated, inferred, projected or suspected population reduction where the time period must include both the past and the future (up to a max. of 100 years in future), and where the causes of reduction may not have ceased OR may not be understood OR may not be reversible.</p>	<p>based on any of the following:</p>	<p>(a) direct observation [except A3]</p> <p>(b) an index of abundance appropriate to the taxon</p> <p>(c) a decline in area of occupancy, extent of occurrence and/or quality of habitat</p> <p>(d) actual or potential levels of exploitation</p> <p>(e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites</p>
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Evidence:

Ineligible under Criterion A

The past population reduction does not meet the threshold for eligibility under criterion A2, and the future population reduction does not meet the threshold for eligibility under criterion A3.

The taxon occurs entirely within a large National Park. There are no obvious threats except large bushfires, but fires may be feasible within the next 13 years.

Criterion B. Geographic range in the form of either B1 (extent of occurrence) and/or B2 (area of occupancy)			
	Critically Endangered Very restricted	Endangered Restricted	Vulnerable Limited
B1. Extent of occurrence (EOO)	< 100 km ²	< 5,000 km ²	< 20,000 km ²
B2. Area of occupancy (AOO)	< 10 km ²	< 500 km ²	< 2,000 km ²
AND at least 2 of the following 3 conditions:			
(a) Severely fragmented OR Number of locations	= 1	≤ 5	≤ 10
(b) Continuing decline observed, estimated, inferred or projected in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) area, extent and/or quality of habitat; (iv) number of locations or subpopulations; (v) number of mature individuals			
(c) Extreme fluctuations in any of: (i) extent of occurrence; (ii) area of occupancy; (iii) number of locations or subpopulations; (iv) number of mature individuals			

Evidence:

Eligible under Criterion B1 as Vulnerable

The Extent of Occurrence (EoO) across the taxon's range is estimated to be 12,958 km², based on accepted, post-1970 records from the Victorian Biodiversity Atlas (VBA).

It is inferred to have 1 location. If the birds persist in Victoria, there is likely to be just one occurrence in Wyperfeld NP, where a single hot bushfire could significantly impact all individuals.

It has a continuing decline in (v) above, as given the small numbers remaining in Victoria, the taxon is very susceptible to stochastic events.

Eligible under Criterion B2 as Endangered

The Area of Occupancy (AoO) across the taxon's range is estimated to be 84 km², based on accepted, post-1970 records from the VBA. As above, it has 1 location, and has a continuing decline in (v) above.

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Criterion C. Small Population size and decline				
		Critically Endangered	Endangered	Vulnerable
Number of mature individuals		< 250	< 2,500	< 10,000
AND at least one of C1 or C2				
C1	An observed, estimated or projected continuing decline of at least (up to a max. of 100 years in future):	25% in 3 years or 1 generation (whichever is longer)	20% in 5 years or 2 generations (whichever is longer)	10% in 10 years or 3 generations (whichever is longer)
C2	An observed, estimated, projected or inferred continuing decline AND least 1 of the following 3 conditions:			
(a)	(i) Number of mature individuals in each subpopulation	≤ 50	≤ 250	≤ 1,000
	(ii) % of mature individuals in one subpopulation =	90 – 100%	95 – 100%	100%
(b)	Extreme fluctuations in the number of mature individuals			

Evidence:

Eligible under Criterion C2 as Endangered

It is estimated that there are 100 to 450 mature individuals. The taxon is only regularly recorded from a small area within Wyperfeld National Park, where the population is very small and isolated.

There is estimated to be a continuing decline and all birds are within one subpopulation.

Criterion D. Very small or restricted populations				
		Critically Endangered	Endangered	Vulnerable
Number of mature individuals (observed or estimated)		< 50	< 250	< 1,000
D2. Only applies to the VU category Restricted area of occupancy or number of locations with a plausible future threat that could drive the species to critically endangered or Extinct in a very short time.		-	-	D2. Typically: AoO < 20 km ² or number of locations ≤ 5

Evidence:

Eligible under Criterion D as Vulnerable

The taxon is estimated to have 100 to 450 mature individuals.

Criterion E (Quantitative Analysis) was not addressed as the taxon does not have a detailed Population Viability Analysis.

References

DSE (2013). *Advisory List of Threatened Vertebrate Fauna in Victoria 2013*. Department of Sustainability and Environment, Melbourne



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Emission, W.B., Beardsell, C.M., Norman, F.I. and Loyn, R.H. (1987) *Atlas of Victorian Birds*. p. 207. Department of Conservation, Forests and Lands, Royal Australasian Ornithologists Union, Melbourne.

Garnett, S.T., Szabo, J.K. and Dutson, G. (2011) *The Action Plan for Australian Birds 2010*. CSIRO Publishing, Collingwood.

Higgins, P.J. and Peter, J.M. (eds) (2002) *Handbook of Australian, New Zealand and Antarctic Birds. Vol. 6 Pardalotes to shrike-thrushes*. p. 271. Oxford University Press, Melbourne.

Office of Environment and Heritage NSW (2011) Redthroat - Vulnerable Species Listing. (downloaded from <https://www.environment.nsw.gov.au/determinations/RedthroatVulSpListing.htm> on 19/3/2019)

Pizzey, G. and Knight, F. (2012) *The Graham Pizzey and Frank Knight Field Guide to the Birds of Australia*. p. 338. Harper Collins Publishers, Melbourne.

SAC (2002). Flora and Fauna Guarantee Scientific Advisory Committee: Final Recommendation on a Nomination for Listing. Nomination No. 547 *Pyrrholaemus brunneus*