



Ptilotula plumula Grey-fronted Honeyeater

Taxonomy

Ptilotula plumula Gould, 1841

The Grey-fronted Honeyeater was previously placed in the genus *Lichenostomus* but was moved to *Ptilotula* after a molecular phylogenetic analysis published in 2011 showed that the original genus was polyphyletic.

Current conservation status

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

Proposed conservation status

Endangered in Victoria

Criterion B2ab(i,ii,iii,v)

Species Information

Description and Life History

The Grey-fronted Honeyeater is a medium sized honeyeater, 14-16.5 cm long. It is olive brown above and yellowish with diffuse pale streaking below, with a pale grey crown and cheek patch with black rear border that is then bordered in yellow. The calls include rattling, rolling squeaks and a repeated loud piping.

They tend to form small communities of up to a dozen or so individuals amongst which there is some sort of hierarchy. They can be aggressive, not only with each other but also towards other species. In Victoria, in areas not subject to extremes of climate they are fairly sedentary, only wandering around locally in search of flowering mallees and the associated insects. They feed in foliage on insects, including lerp and aphids, seeds, nectar and berries. Breeding is mostly in winter-spring.

Generation Length

The generation length of the Grey-fronted Honeyeater is estimated to be 3 to 4 years. This is based on the congener Helmeted Honeyeater (Garnett et al. (2011).

Distribution

The taxon is widespread in inland Australia, but at the edge of its range in Victoria. There are 30 records in the Victorian Biodiversity Atlas (VBA), all from north-western Victoria (Big Desert, Sunset Country, Hattah National Park and Annuello Corridor. Most records were made during the Millennium Drought.

Habitat

The birds occur in scattered clumps of low dense mallee.

Threats

The birds are likely to be threatened by increasing unreliability of winter rainfall and increased fuel reduction burning. Declining winter rainfall reduces insect abundance and nectar availability. Inappropriate, too frequent fire regimes remove old mallee eucalypts and disrupt flowering phenology.

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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> <ul style="list-style-type: none"> (a) direct observation [except A3] (b) an index of abundance appropriate to the taxon (c) a decline in area of occupancy, extent of occurrence and/or quality of habitat (d) actual or potential levels of exploitation (e) the effects of introduced taxa, hybridization, pathogens, pollutants, competitors or parasites 			

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.

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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 14,155 km², based on accepted, post-1970 records in the VBA.

It is estimated to have 2 locations, as each subpopulation may be variably affected by bushfires or stochastic events.

It has a continuing decline in (i), (ii), (iii) and (v) above. Declines are likely to continue as a result of increasing unreliability of winter rainfall and increased fuel reduction burning. A turnaround in declining winter rainfall is not expected, as it is likely to be a consequence of climate change.

Eligible under Criterion B2 as Endangered

The Area of Occupancy (AoO) across the taxon's range is estimated to be 102 km², based on 2 x 2 km grids derived from accepted, post-1970 records in the VBA. As above, it has 2 locations and has a continuing decline in (i), (ii), (iii) and (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:

Ineligible under Criterion C

It is suspected that there are 200 mature individuals, but this qualifier is too weak and other thresholds under this criterion have not been met.

Small groups of this species inhabit the north-western Sunset Country. These birds represent the south-eastern extremity of a much larger population distributed extensively across arid Australia. There are no population estimates or practical means of obtaining an estimate, so the number provided is a best guess.

Birddata only has 6 accepted Victorian sightings of this species since 1998 - either with no counts, or of an individual bird,

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:

Ineligible under Criterion D

It is suspected that there are 200 mature individuals.

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



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References

- DSE (2013). *Advisory List of Threatened Vertebrate Fauna in Victoria - 2013*. Department of Sustainability and Environment, Melbourne. Retrieved from: https://www.environment.vic.gov.au/__data/assets/pdf_file/0014/50450/Advisory-List-of-Threatened-Vertebrate-Fauna_FINAL-2013.pdf
- Garnett, S., Szabo, J. and Dutson, G. (2011). *The Action Plan for Australian Birds 2010*. CSIRO Publishing, Melbourne.
- Menkhorst, P.W. and Davies, J.N. (1983). The status and distribution in Victoria of the Grey-fronted Honeyeater. *Australian Bird Watcher* 10: 107-113.
- Nyári, Á.S. and Joseph, L. (2011). Systematic dismantlement of *Lichenostomus* improves the basis for understanding relationships within the honeyeaters (Meliphagidae) and historical development of Australo-Papuan bird communities-. *Emu*. 111: 202-211.