

Birds Red Hot List: The Australian birds most at risk of extinction

Key Messages

This project seeks to identify which Australian species are at greatest risk of extinction in the near to medium future (about 20 years), and to identify priority actions that may most effectively reduce the risk of such extinctions.

In the last 200 years around 29 Australian bird species and subspecies have become extinct.

Most of these extinctions could have been prevented had conservation managers and our community been more aware of the extent of risk that these species faced, and if managers had been able to respond more effectively and rapidly to the threats driving their decline. We want to

avoid further losses, a sentiment and commitment that underpins Australia's recent Threatened Species Strategy.

This research project has garnered, integrated and analysed the knowledge of Australian researchers expert in bird conservation to derive a first-ever estimate of the likelihood of extinction over the next 20 years for Australia's most imperilled birds.

Pooling the extinction-likelihoods across species also allowed the project to estimate that another 10 Australian bird species could become extinct in the next 20 years (by 2038) unless current management efforts and effectiveness improve.

The birds at greatest risk of extinction are endemic to islands or occur mostly in the more intensely developed parts of southern Australia. Every one of these species will require specifically targeted actions to mitigate risks.

Identifying species at risk is a crucial first step in avoiding their extinctions but must be followed by substantial investment by, and collaboration among, governments, non-government organisations and the private sector.

Without interventions, future Australian bird extinctions are likely to take place on islands, or in species that occur in the more developed parts of southern Australia.



No. 11: Black-eared miner
Photo: Ron Knight CC BY 2.0
Wikimedia Commons



No. 17: Helmeted honeyeater
Photo: Dylan Sanusi-Goh CC BY 4.0
Wikimedia Commons



No. 2: Orange-bellied parrot
Photo: JJ Harrison CC BY SA 3.0
Wikimedia Commons



No. 6: Plains wanderer
Photo: Patrick K59 CC BY 2.0
Wikimedia Commons



No. 12: Mallee emu-wren
Photo: Ron Knight CC BY 2.0 Wikimedia Commons

Table 1. The 20 Australian birds most at risk of extinction over the next 20 years.

Note that these estimates are based on an assumption of continuation of the level and effectiveness of current management.



The 20 Australian birds most at risk of extinction over the next 20 years.

Rank	Species or sub-species	Mean likelihood of extinction within 20 years (%)
1	King Island brown thornbill <i>Acanthiza pusilla archibaldi</i>	94
2	Orange-bellied parrot <i>Neophema chrysogaster*</i>	87
3	King Island scrubtit <i>Acanthornis magna greeniana</i>	83
4	Western ground parrot <i>Pezoporus wallicus flaviventris*</i>	75
5	Houtman Abrolhos painted button-quail <i>Turnix varius scintillans</i>	71
6	Plains-wanderer <i>Pedionomus torquatus*</i>	64
7	Regent honeyeater <i>Anthochaera phrygia*</i>	57
8	Grey-range thick-billed grasswren <i>Amytornis modestus obscurior</i>	53
9	Herald petrel <i>Pterodroma heraldica</i> [^]	52
10	Black-eared miner <i>Manorina melanotis</i>	47
11	Northern eastern bristlebird* <i>MDasyornis brachypterus monoides</i>	39
12	Mallee emu-wren <i>Stipiturus mallee*</i>	34
13	Swift parrot <i>Lathamus discolor*</i>	31
14	Norfolk Island boobook <i>Ninox novaeseelandiae undulata*</i>	27
15	Mount Lofty Ranges chestnut-rumped Heathwren <i>Calamanthus pyrrhopygia parkeri</i>	24
16	Fleurieu Peninsula southern emu-wren <i>Stipiturus malachurus intermedius</i>	17
17	Helmeted honeyeater <i>Lichenostomus melanops cassidix*</i>	17
18	Cocos buff-banded rail <i>Hypotaenidia philippensis andrewsi</i>	17
19	Western bristlebird <i>Dasyornis longirostris</i>	16
20	Alligator Rivers yellow chat <i>Epthianura crocea tunneyi*</i>	15

[^] Refers to Australian breeding population.

Australia's Threatened Species Strategy (2016) includes ten birds from Table 1 as priorities species (marked*).

Locations of the 20 Australian birds at greatest risk of extinction

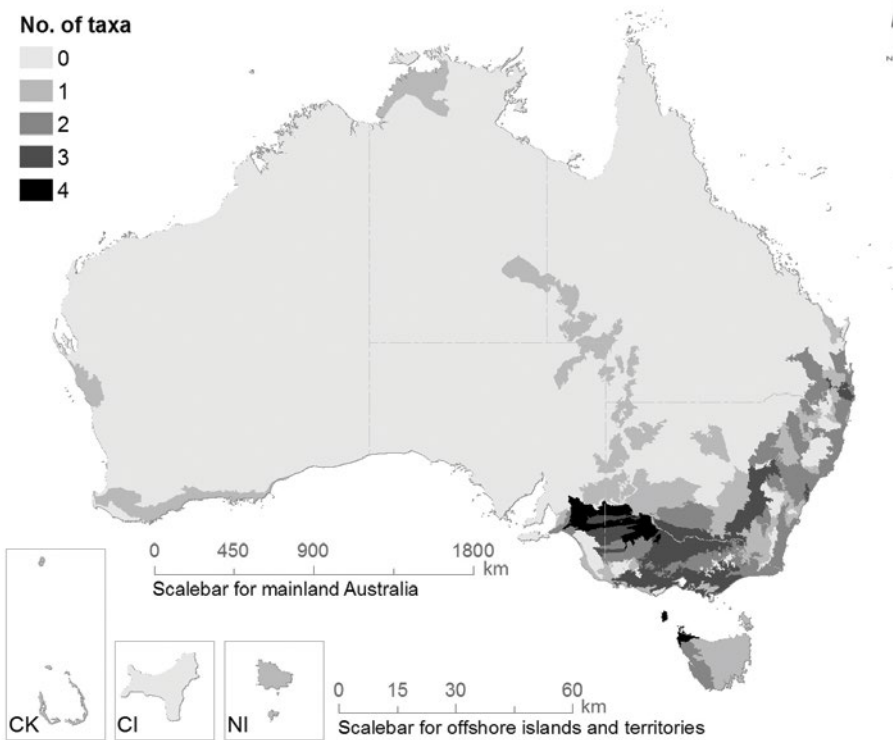


Figure 1. Locations of the 20 Australian birds at greatest risk of extinction

This map shows the number of birds occurring in each Interim Biogeographic Regionalisation for Australia (IBRA) subregion (CK – Cocos (Keeling) Islands, CI – Christmas Island, NI – Norfolk Island).

A consistent method to identify species at most risk of extinction

The methods developed in this project are being applied to identify extinction risk for species in other taxonomic groups.

In this project we obtained estimates of likelihood of extinction through an expert elicitation process. We were able to complement this approach with estimates derived from the application of existing global protocols for conservation status assessments (IUCN Red List of Threatened Species and NatureServe).

These approaches provide broadly comparable estimates, though all have constraints and sets of assumptions. Therefore, the use of several complementary approaches is more likely to provide a robust assessment of extinction risk: the future of any species is not always straightforward to predict.

To date, this project has provided estimates of extinction risk for Australian birds and mammals. In general, the information available for threatened species in these groups is more substantial than for other threatened species in other groups (such as fish or insects).

However, even for the relatively well-known groups such as birds and mammals, there are significant information gaps – in knowledge and population size and trajectories, the threatening factors that are most imperilling the species, and the effectiveness of management actions that seek to control such threats – that markedly constrain our ability to predict the future for these species. It is difficult to predict the future if we don't know well the past or the present.



No. 7: Regent honeyeater
Photo: Jessica Bonsell CC BY 3.0 Wikimedia Commons



No. 13: Swift parrot
Photo: Heather CC BY NC 2.0 Flickr

Twenty-nine Australian bird species (or subspecies) have become extinct in the last 200 years. Future extinctions are more likely to be avoided if we can identify the birds at greatest risk.

Further Information

For more information contact Prof Stephen Garnett – stephen.garnett@cdu.edu.au