# Action statement

*Flora & Fauna Guarantee Act 1988*

## Black-eared Miner *(Manorina melanotis)*

**Taxon ID: 10967**

**Action statements are developed under the *Flora and Fauna Guarantee Act 1988* (FFG Act). Their preparation and implementation complement the FFG Act strategy *Protecting Victoria's Environment – Biodiversity 2037* and its vision that "Victoria's biodiversity is healthy, valued and actively cared for".**

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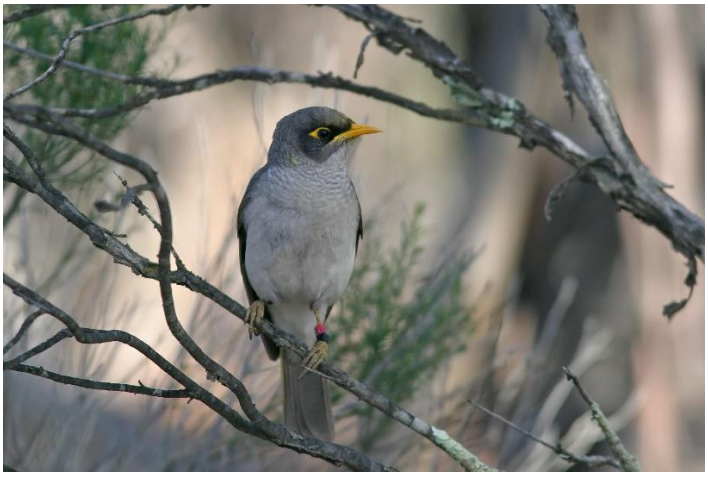
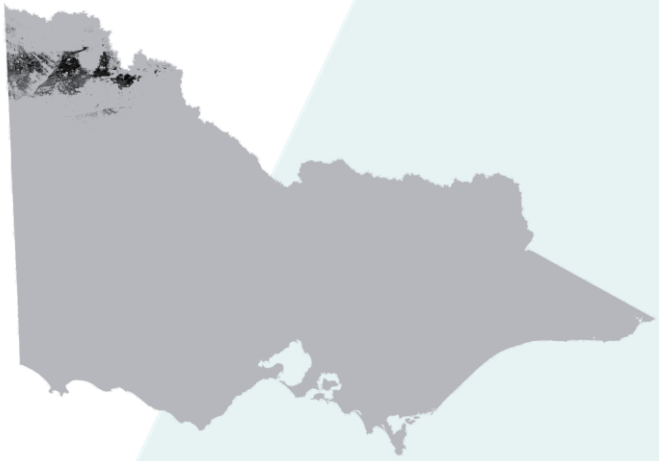
## Species and Distribution



Black-eared Miner. Image by Rohan Clarke.



This habitat distribution model displays the indicative range of the Black-eared Miner based on occurrence records and likely habitat. See NatureKit for an interactive map. The Black-eared Miner also occurs outside of Victoria.

## Conservation Status

**Critically Endangered**

**Listing criteria:** 3.1.3(b)(i); 3.1.4 of the Flora and Fauna Guarantee Regulations 2020.

This means that:

- The total number of mature Black-eared Miner individuals is extremely low, the number is likely to continue to decline and each subpopulation is extremely small.

**Corresponding International Union for the Conservation of Nature (IUCN) criteria**: C2a(i); D.

More information on IUCN listing criteria can be found here: IUCN Red List of Threatened Species

## Species Information

Species information such as its description, distribution, ecology and references are provided in the Black-eared Miner Species Forecast Report.

## Threats

Threats listed below have been identified through expert consultation, published literature and spatial analysis.

| Threat | Description |
|---|---|
| **Population dynamics** | |
| Fragmentation | • Female dispersal might be compromised in fragmented populations, resulting in an uneven sex ratio. |
| Loss of genetic diversity | • Continued genetic exchange between Yellow-throated Miners (*Manorina flavigula*) and Black-eared Miners has the potential to result in the loss of some Black-eared Miner genes. |
| **Fire** | |
| Altered fire regimes | • Fire presents a risk to the persistence of the remaining populations and habitat of Black-eared Miner.<br>• Large uncontrolled wildfires destroy, and further fragment remaining old-growth mallee in large reserves and may cause significant mortality events. Although the species can persist in patchily burnt areas, they require unburnt mallee habitat (>40 years old) in order to survive. Such vegetation is now very limited and patchily distributed.<br>• A hotter, drier climate may increase the likelihood or frequency of fire impacting habitat, with the potential to reduce habitat quality and/or extent. |
| Fire management activities | • Fire management activities that create wide breaks that penetrate into large mallee reserves may provide pathways for Yellow-throated Miners to ingress on Black-eared Miner populations. |
| **Climate change** | |
| Increased frequency and/or length of droughts | • Longer and more intense droughts may lead to further degradation and fragmentation of remnant Black-eared Miner habitat. |
| Temperature extremes | • Longer and more intense heatwaves may reduce suitable breeding windows or result in direct mortality of birds. |
| **Habitat loss, degradation or modification** | |
| Livestock | • Grazing pressure from livestock limits regeneration of mallee habitat and encourages growth of woody shrubs. This affects habitat quality and connectivity, dispersal, and population dynamics. |
| Vegetation clearing or damage | • Vegetation clearing and fragmentation of habitat contributes to the decline of the species and has resulted in their contact and interbreeding with the Yellow-throated Miner. |
| **Native species** | |
| Mammals | • Over-browsing by kangaroos may limit regeneration of mallee plants and encourage growth of woody shrubs, affecting habitat quality and connectivity. |

| Threat | Description |
|---|---|
| Native invertebrates | • Arhodia (*Arhodia* spp.) caterpillars can occur in large numbers and defoliate large areas of mallee habitat. This has most notably occurred in South Australia, e.g., Gluepot Reserve, but is also occurring in the Murray-Sunset National Park. |
| **Introduced species** | |
| Introduced herbivores | • Pressure from feral goats (*Capra hircus*) contributes to total grazing pressure and degrades habitat quality. |
| Introduced plants | • Buffel Grass (*Cenchrus ciliaris* L.) invasion is a significant threat, resulting in changes to habitat quality and fuel load/fire risk. |
| Introduced predators | • Foxes (*Vulpes vulpes*) and feral cats (*Felis catus*) are assumed to cause direct mortality. However, these are considered less significant threats to the Black-eared Miner. |

## Conservation Objectives

Conservation objectives are informed by the conservation status and criteria under which the species was listed under the FFG Act. This provides a framework to understand how we can work towards recovery and improve the species' conservation status over time as per the objectives of the FFG Act.

The key objectives of this action statement are:

- Mitigate threats to populations and habitat to increase resilience, improve genetic fitness and minimise future population decline.
- Establish at least two new viable populations within its historic range.
- Increase knowledge of biology, ecology, distribution, demography, emerging threats, and conservation requirements.
- Support community participation and improve awareness of the Black-eared Miner and conservation of its habitat.

## Conservation Actions

The actions below have been identified through expert consultation, published literature and spatial analysis. Actions are listed in alphabetical order to allow all interested parties to prioritise based on their context, capacity, and capability. Landscape scale actions may mitigate threats for other species. For more information on where to undertake actions that benefit multiple species and identify the most beneficial locations to undertake actions for this species, please refer to NatureKit.

| Action | Description |
|---|---|
| Avoid and/or mitigate impacts associated with fire management | • Ensure that species distribution data and ecological information is available and considered in fire management activities.<br>• Undertake biodiversity values check prior to fuel management in areas of the species habitat, to confirm treatment suitability and timing. |
| Community engagement and awareness | • Increase landholder awareness of the Black-eared Miner and its habitat, and impacts of overall grazing pressure on the habitat. Provide guidance on the changes to grazing that may be required to support species recovery. This may include excluding grazing or revising stocking density in areas with suitable habitat. |

| Action | Description |
|---|---|
| Control introduced herbivores* | • Implement effective management and control of feral goats. |
| Control introduced plants* | • Implement effective management and control of Buffel Grass. |
| Ecological fire regime | • Implement fire management actions that promote an ecologically appropriate fire regime for the Black-eared Miner. |
| Ex-situ management | • Investigate the feasibility and benefits of a captive breeding program using genetically healthy birds to provide insurance against extinction, and individuals for genetic management and translocation activities. |
| Manage over-abundant native species | • Strategic removal of Yellow-throated Miners and hybrids within proximity to Black-eared Miner colonies. |
| Research | • Develop a greater understanding of the consequences of genetic exchange between Yellow-throated Miners and Black-eared Miners to inform future genetic management.<br>• Investigate the causes of large-scale caterpillar defoliation events in the mallee and explore management options.<br>• Investigate impact of introduced predators on Black-eared Miner populations to determine level of threat and required response.<br>• Inform management decisions through the use of structured decision support tools such as Population Viability Analysis and Specific Needs Assessment. |
| Restoration and/or revegetation* | • Restore and revegetate degraded habitat, including areas associated with closed artificial watering points.<br>• Improve habitat quality and connectivity to encourage movement of Black-eared Miners into Victorian areas where the species previously occurred. |
| Survey and monitoring | • Continue monitoring existing colonies of Black-eared Miner, including the degree of hybridisation with Yellow-throated Miner, to inform management actions. |
| Translocation | • Investigate wild-to-wild translocations where required to manage risks to populations, in collaboration with South Australia and New South Wales agencies.<br>• Undertake translocations to assist dispersal of Black-eared Miners into suitable habitat. |

**Indicates landscape-scale actions that may deliver benefits to multiple species*

## Past actions

The key conservation management actions listed below have been delivered in the past 10 years.

| Past action | Description |
|---|---|
| Research | • Black-eared Miner was a focal species of the Mallee Fire and Biodiversity and Mallee Hawkeye Projects between 2005 and 2015, providing a large body of research into the species' response to fire-induced habitat changes, fire management needs, and habitat distribution models. |

| Past action | Description |
|---|---|
| | • Current research is investigating the threat risk of genetic introgression of Black-eared Miners with Yellow-throated Miners via samples taken from colonies in 2022/23.<br>• Removal of Yellow-throated Miners and genetic analysis was undertaken in South Australia in 2022 and is scheduled to be undertaken in Autumn 2023 in Victoria. |
| Survey and monitoring | • Bird surveys were undertaken in Annuello Flora and Fauna Reserve from 2016 to 2018, with no Black-eared Miners detected.<br>• Survey of Black-eared Miner populations in Murray-Sunset National Park, Hattah-Kulkyne National Park, Annuello Flora and Fauna Reserve, and Bronzewing Flora and Fauna Reserve were undertaken in 2014. |

## Decision Support Tools

Decision making for conservation actions is supported through the following Victorian Government tools which may be of assistance in choosing the most appropriate or beneficial actions for biodiversity:

- Choosing actions for nature: NatureKit
- Biodiversity Knowledge Framework

## Further Information

- Black-eared Miner Species Forecast Report
- Threatened Species Assessment report – Black-eared Miner (*Manorina melanotis*)
- Commonwealth Species Profile and Threats database
- Victoria's changing climate – understanding the impacts of climate change on Victoria
- Genetic Risk Index
- Commonwealth Threat Abatement Plans
- Flora and Fauna Guarantee Regulations 2020
- IUCN criteria summary

## Get Involved and Take Action

If you are interested in supporting this species' recovery, there are some important things you need to consider.

The Department of Energy, Environment and Climate Action (DEECA) is committed to engaging and partnering with Traditional Owners on how they wish to be involved in the planning and implementation of actions for this species. Steps must be taken to avoid harm and where appropriate ensure actions can deliver cultural benefits.

You can find advice about required approvals, land manager and/or owner permissions, options and incentives for private land conservation, and engagement with Traditional Owners and public land managers here: Action statements (environment.vic.gov.au)

To identify the relevant Traditional Owners, use the Aboriginal Cultural Heritage Register and Information System (ACHRIS) Welcome to Country and Acknowledgements Map.

You can also register your interest in taking action so we can connect you to other people or organisations working to help us secure the future for this species at threatened.species@deeca.vic.gov.au

## Reporting Actions

Activity data is critical to monitoring the implementation and progress of actions and evaluating action statements. These data are also used to:

- Determine progress towards achieving the contributing targets for Protecting Victoria's Environment – Biodiversity 2037.
- Inform the five-yearly State of the Environment Report.

For guidance on reporting actions undertaken on this species, refer to Activity Data.

## Submitting Monitoring Data

The Victorian Biodiversity Atlas (VBA) provides a foundational dataset showing where biodiversity occurs across the Victorian landscape and how it may have changed over time. As a core input for decision support tools that inform conservation action, public land management, research activities and reporting, we encourage all participants in the delivery of on-ground actions to submit species records and observations, including for introduced plants and animals, as they carry out their projects.

For further information see: Victorian Biodiversity Atlas (environment.vic.gov.au)

Sign up and begin submitting your data today at: https://vba.biodiversity.vic.gov.au/

### Acknowledgment

We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria's land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

We are committed to genuinely partner, and meaningfully engage, with Victoria's Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.



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## Accessibility

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