

# Action statement

*Flora & Fauna Guarantee Act 1988*

## Empire Gudgeon (*Hypseleotris compressa*)

Taxon ID: 5053

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”.

### Species and Distribution



Empire Gudgeon. Image by Jeremy Tscharke.



Empire Gudgeon’s Victorian Biodiversity Atlas (VBA) records since 1970. See [NatureKit](#) for an interactive map. The Empire Gudgeon also occurs outside of Victoria.

### Conservation Status

**Critically endangered**

**Listing criteria:** 3.1.4. of the Flora and Fauna Guarantee Regulations 2020.

This means that:

- The total number of Empire Gudgeon mature individuals is extremely low.

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

More information on IUCN listing criteria can be found here: [IUCN Red List criteria](#).

### Species Information

Species information such as its description, distribution, ecology and references are provided in the [Empire Gudgeon Species Forecast Report](#).

## Threats

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

Threat	Description
<b>Climate change</b>	
Increased frequency and/or length of droughts	<ul style="list-style-type: none"> <li>Drying and warming of the environment, including droughts, may lead to habitat changes, and impact recruitment and/or mortality rates.</li> </ul>
<b>Habitat loss, degradation or modification</b>	
Barriers to movement	<ul style="list-style-type: none"> <li>Physical barriers to movement reduce access to habitat and opportunity for genetic exchange between populations.</li> </ul>
Livestock	<ul style="list-style-type: none"> <li>Livestock can cause habitat degradation through the combined effects of herbivory, trampling, soil compaction, sedimentation, pugging of wet areas, and excess nutrient loads. These changes to terrestrial and edge habitats impact water quality.</li> </ul>
Reduced estuary extent	<ul style="list-style-type: none"> <li>Estuaries may be reduced through changes in land use, groundwater levels, surface flows, rainfall, and/or estuary mouth management, resulting in reduced habitat extent and/or condition.</li> </ul>
Vegetation clearing or damage	<ul style="list-style-type: none"> <li>Removal or damage to vegetation can lead to sedimentation and habitat degradation.</li> </ul>
<b>Human disturbance</b>	
Construction, development and/or infrastructure	<ul style="list-style-type: none"> <li>Construction and development may result in direct removal of habitat (i.e., large woody debris), or indirect impacts to habitat through changes to water regime.</li> </ul>
<b>Water properties</b>	
Degraded water quality	<ul style="list-style-type: none"> <li>Poor water quality arising through siltation, pollution, changes to salinity, increased nutrients, eutrophication and/or blackwater events impacts habitat quality.</li> </ul>
<b>Pollutants and toxicants</b>	
Pollution from terrestrial sources	<ul style="list-style-type: none"> <li>Land-based runoff and pollutants pose a threat to aquatic species and ecosystems, either through direct impacts on health, recruitment and/or mortality, or indirectly by affecting food availability and/or habitat condition.</li> </ul>

## 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.
- Increase the Empire Gudgeon's range and/or extent, by providing opportunities for natural movement.

- Increase knowledge of biology, ecology, distribution, demography, emerging threats, and conservation requirements.
- Support community participation and improve awareness of the Empire Gudgeon 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
Artificial estuary mouth opening	<ul style="list-style-type: none"> <li>• Consider the species presence and ecological needs when enacting estuary management plans that trigger artificial estuary mouth opening.</li> </ul>
Community engagement and awareness	<ul style="list-style-type: none"> <li>• Increase landholder awareness of the species' presence and ecological needs, and the impacts of livestock grazing to the species and its habitat. Provide guidance on the changes to grazing that may be required, such as excluding grazing from riparian zones, to support the recovery of the species.</li> </ul>
Manage barriers to movement	<ul style="list-style-type: none"> <li>• Consider the species needs and distribution in decision making around the establishment of new potential barriers to movement. Investigate opportunities to overcome the impacts of any existing barriers to movement (e.g., fishways).</li> </ul>
Manage built infrastructure	<ul style="list-style-type: none"> <li>• Consider the species requirements in the placement and design of built infrastructure near known habitat. Include planning for appropriate buffers to limit off-site impacts of infrastructure.</li> </ul>
Manage environmental water	<ul style="list-style-type: none"> <li>• Manage water regimes and water quality to support retention, restoration and/or creation of habitat, and population persistence.</li> </ul>
Minimise and mitigate the impacts of pollution	<ul style="list-style-type: none"> <li>• Minimise or mitigate the impacts of pollution, by identifying and implementing available management options to address the source, transfer pathways, and impact of pollutants to the species.</li> </ul>
Research	<ul style="list-style-type: none"> <li>• Improve understanding of reproductive requirements and factors influencing recruitment success.</li> <li>• Improve understanding of the species movements and/or dispersal and habitat requirements, including when estuaries are used by larvae.</li> <li>• Increase understanding of genetic risks and management options. Investigate opportunities to increase the abundance of fish to improve genetic diversity and therefore evolutionary potential.</li> <li>• Investigate potential known threats (e.g., predation or competition from introduced fish species) and potential management actions.</li> </ul>
Restoration and/or revegetation *	<ul style="list-style-type: none"> <li>• Undertake restoration and/or revegetation to increase habitat suitability and/or create new habitat areas, including introduction of large woody debris into the riverine environment.</li> </ul>
Survey and monitoring	<ul style="list-style-type: none"> <li>• Monitor populations at known sites and other suitable locations to assess distribution, population trends and habitat condition.</li> </ul>

Action	Description
	<ul style="list-style-type: none"> <li>Undertake targeted field surveys to confirm the extent of all known populations and seek to discover previously undetected populations based on predicted habitat and ecological information.</li> </ul>

*\*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
Survey and monitoring	<ul style="list-style-type: none"> <li>Empire Gudgeon were captured from sites in the Genoa, Snowy, Nicholson and Brodribb Rivers during a monitoring survey in February 2023, indicating a range expansion westward in eastern Victoria.</li> </ul>

## 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

- [Empire Gudgeon Species Forecast Report](#)
- [Threatened Species Assessment report – Empire Gudgeon \(\*Hypseleotris compressa\*\)](#)
- [Commonwealth Species Profile and Threats database](#)
- [Victoria's changing climate – understanding the impacts of climate change in Victoria](#)
- [Commonwealth Threat Abatement Plans](#)
- [Genetic Risk Index](#)
- [Flora and Fauna Guarantee Regulations 2020](#)
- [IUCN Red List criteria descriptions](#)

## 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](mailto: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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