

Action statement

Flora & Fauna Guarantee Act 1988

Giant Gippsland Earthworm (*Megascolides australis*)

Taxon ID: 15004

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



Giant Gippsland Earthworm. Image by Beverley Van Praagh.



Giant Gippsland Earthworm Victorian Biodiversity Atlas (VBA) records since 1970. See [NatureKit](#) for an interactive map.

Conservation Status

Endangered

Listing criteria: 4.1.2(a), (b)(i,ii,iii,iv,v) of the Flora and Fauna Guarantee Regulations 2020.

This means that:

- the Giant Gippsland Earthworm's geographic distribution is highly restricted; and
- the distribution of the population or habitat is severely fragmented; and
- there is a continuing decline or reduction in:
 - its extent of occurrence; and
 - its area of occupancy; and
 - the area, extent or quality of habitat; and
 - the number of locations or subpopulations; and
 - the number of mature individuals.

Corresponding International Union for the Conservation of Nature (IUCN) criteria: B1ab(i,ii,iii,iv,v).

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 [Giant Gippsland Earthworm Species Forecast Report](#).

Threats

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

Threat	Description
Altered hydrology	
Change to groundwater height	<ul style="list-style-type: none">Alteration to groundwater height and/or drainage patterns can degrade habitat, as specific soil moisture levels are important for the Giant Gippsland Earthworm. These changes are often associated with development and land use change.
Habitat loss, degradation or modification	
Land use change	<ul style="list-style-type: none">Loss and damage to habitat from agriculture to urban development, and establishment of plantations is occurring. Activities associated with these changes that can impact the Giant Gippsland Earthworm include excavation and earthworks, compaction by heavy machinery, and soil cultivation.
Livestock	<ul style="list-style-type: none">Grazing by livestock may damage habitat from pugging, soil compaction and erosion.
Loss of key habitat features	<ul style="list-style-type: none">Changes to preferred soil composition and soil structure contribute to habitat loss.Inappropriate revegetation practices can result in loss of suitable soil composition and structure.
Pollutants and toxicants	
Pesticide use	<ul style="list-style-type: none">Pesticides may cause direct mortality.
Population dynamics	
Loss of genetic diversity	<ul style="list-style-type: none">Populations are fragmented and appear to be discreet with little opportunity for genetic exchange. This species was rated as having a Very High risk of genetic decline.
Low survival in first year	<ul style="list-style-type: none">Juveniles are rarely observed/recorded in surveys. It is uncertain whether this indicates low levels of recruitment. is a demographic problem for this species
Human disturbance	
Ground disturbance	<ul style="list-style-type: none">Some survey methods are destructive to habitat and can lead to mortality of worms.

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 minimise future population decline.
- Increase knowledge of biology, ecology, distribution, demography, emerging threats, and conservation requirements.
- Support community participation and improve awareness of the Giant Gippsland Earthworm and conservation of its environments.

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
Community engagement and awareness	<ul style="list-style-type: none"> • Continue to improve community awareness of the Giant Gippsland Earthworm and build capacity for landholders to participate in habitat protection actions. • Increase landholder awareness of the Giant Gippsland Earthworm, likely areas of habitat on-farm, the impacts of soil compaction and erosion from livestock grazing, the impact of pesticides, and ways of reducing pesticide use through integrated pest management. Provide guidance on the changes to grazing that may be required, such as exclusion, to support the recovery of the species. • Support citizen science opportunities to contribute to the conservation of the Giant Gippsland Earthworm.
Conservation management planning	<ul style="list-style-type: none"> • Maintain and periodically review planning overlays for this species under local government planning schemes. • Consider Giant Gippsland Earthworm requirements in the placement and design of built infrastructure. Include planning for appropriate buffers around habitat to limit human disturbance.
Develop, update and apply forestry protections	<ul style="list-style-type: none"> • Maintain prescriptions for this species under the <i>Code of Practice for Timber Production 2014 (as amended in 2022)</i> (the Code). • Where relevant, incorporate species-specific protection measures into plans and permits relating to timber harvesting operations in native forest on private land.
Permanent protection	<ul style="list-style-type: none"> • Investigate incentives, voluntary agreements, covenants and other permanent protection measures to protect and restore habitat.
Research	<ul style="list-style-type: none"> • Better understand the ecology of the Giant Gippsland Earthworm and its responses to habitat management. • Determine the influence of hydrology on populations. • Examine the impacts of land use/land use change on populations. • Use Ecological Vegetation Classes combined with non-invasive survey techniques to improve understanding of the current distribution, to inform management actions.

Action	Description
	<ul style="list-style-type: none"> Research non-invasive methodologies for surveying and monitoring the Giant Gippsland Earthworm. Assess whether low recruitment presents a demographic problem for this species, and if so, the possible causes. Evaluate the opportunities to address genetic risks for this species.
Restoration and/or revegetation	<ul style="list-style-type: none"> Apply knowledge of the Giant Gippsland Earthworm's ecological requirements to ensure appropriate design of restoration and revegetation projects.
Survey and monitoring	<ul style="list-style-type: none"> Employing less invasive methodologies, monitor populations to inform management.
Translocation	<ul style="list-style-type: none"> Develop and implement agreed protocols for translocation of the species.

**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
Community engagement and awareness	<ul style="list-style-type: none"> Community Website and factsheets for Giant Gippsland Earthworm established (www.giantearthworm.org.au). Landholders connected through a range of established networks to build awareness and involvement. Assessments undertaken with landholders, and colonies of the species protected through fencing and maintenance of an appropriate grazing at sites across the species range.
Conservation management planning	<ul style="list-style-type: none"> Management guide developed containing specialist information on identification and management of the species habitat. This was produced to supplement existing management plans developed for covenanted properties. Habitat model developed, and together with an Environmental Significance Overlay (ES04 and ESO9) used by Baw Baw Shire Council and South Gippsland Shire Council, the likelihood of Giant Gippsland Earthworm occurring in areas to be impacted works was predicted.
Develop, update, and apply forestry protections	<ul style="list-style-type: none"> The Giant Gippsland Earthworm has a current species-specific prescription in the Code: <ul style="list-style-type: none"> In the Gippsland Forest Management Area: Apply a management area over populations. Conduct a site inspection and detailed planning in consultation with the Department to ensure the species is adequately protected during timber harvesting operations.
Permanent protection	<ul style="list-style-type: none"> Two covenants were established and two more are being progressed to protect and manage Giant Gippsland Earthworm habitat.
Recovery Team	<ul style="list-style-type: none"> A National Recovery Team has been in place for this species since 1997.
Research	<ul style="list-style-type: none"> Investigations undertaken to understand the impacts of willow removal programs on Giant Gippsland Earthworm's populations.

Past action	Description
Restoration and/or revegetation	<ul style="list-style-type: none">• Trial revegetation sites established through partnerships with Landcare Groups to manage appropriate habitat on farms.
Survey and monitoring	<ul style="list-style-type: none">• Successful survey work has discovered new locations for the species.

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

- [Giant Gippsland Earthworm Species Forecast Report](#)
- [Threatened Species Assessment report – Giant Gippsland Earthworm \(*Megascolides australis*\)](#)
- [Commonwealth Species Profile and Threats database](#)
- [Victoria's changing climate – understanding the impacts of climate change in Victoria](#)
- [Code of Practice for Timber Production 2014](#)
- [Genetic Risk Index](#)
- [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 \(environment.vic.gov.au\)](https://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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