

# Action statement

## *Flora and Fauna Guarantee Act 1988*

### Winged Peppergrass (*Lepidium monoplocoides*)

Taxon ID: 501905

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



Winged Peppergrass. Image source: Royal Botanic Gardens Victoria.



This habitat distribution model displays the indicative range of Winged Peppergrass based on occurrence records and likely habitat. See [NatureKit](#) for an interactive map.

## Conservation Status

### Endangered

**Listing criteria:** 4.1.1; 4.1.2(a)(b)(iii)(v)(c)(v) of the Flora and Fauna Guarantee Regulations 2020.

This means that:

- the taxon has undergone, is suspected to have undergone, or is likely to undergo in the immediate future, a severe reduction in population size; and
- its geographic distribution is highly restricted; and
- the distribution of the population or habitat of the taxon is severely fragmented; and
- it is restricted to a limited number of areas that are subject to the same threat or suite of threats that can impact all individuals present; and
- there is a continuing decline or reduction in:
  - the area, extent or quality of habitat; and
  - the numbers of mature individuals; and
- there are extreme fluctuations in:
  - the numbers of mature individuals.

**Corresponding International Union for the Conservation of Nature (IUCN) criteria:** A2ce+3ce+4ce; B2ab(iii,v)c(iv).

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 [Winged Peppercress Species Forecast Report](#) and [VicFlora](#).

## Threats

The threats below have been identified through expert input, published literature and spatial analysis.

| Threat   | Description  |
|--|--|
| <b>Altered hydrology</b>                         |  |
| Altered water regime                             | <ul style="list-style-type: none"> <li>Changes to flow or water regimes which do not align with the species' needs may impact habitat suitability, recruitment and/or mortality, and ultimately site occupancy.</li> </ul>   |
| <b>Climate change</b>                            |  |
| Altered rainfall and temperature regimes         | <ul style="list-style-type: none"> <li>Climate change, increasing temperature and altered rainfall are likely to magnify existing threats and may reduce the stability, extent, and condition of habitat.</li> </ul>   |
| <b>Habitat loss, degradation or modification</b> |  |
| Excess biomass                                   | <ul style="list-style-type: none"> <li>Excess growth of either native or introduced plant species can change the structure and composition of habitat.</li> </ul>  |
| Land use change                                  | <ul style="list-style-type: none"> <li>Land use change alters vegetation extent and condition, and may impact water regimes, contributing to habitat loss and degradation.</li> </ul>  |
| Livestock  | <ul style="list-style-type: none"> <li>Livestock can cause habitat degradation through the combined effects of herbivory, trampling, soil compaction, soil erosion, pugging of wet areas, and excess nutrient loads.</li> </ul>  |
| Vegetation clearing or damage                    | <ul style="list-style-type: none"> <li>Habitats are subject to ongoing small and large losses as a result of activities including urban and rural development and utilities works and maintenance on transport corridors.</li> </ul>   |
| <b>Human disturbance</b>                         |  |
| Lack of awareness                                | <ul style="list-style-type: none"> <li>Land managers and/or community members may inadvertently cause harm to a species or its habitat through a lack of awareness of the species' conservation needs.</li> </ul>  |
| <b>Introduced species</b>                        |  |
| Feral pigs                                       | <ul style="list-style-type: none"> <li>Feral pigs (<i>Sus scrofa</i>) cause direct mortality and damage habitat through pugging and wallowing that compacts soils. Pigs can also cause erosion and increase nutrient loads that result in degraded water quality and changes to vegetation structure.</li> </ul>               |
| Introduced plants                                | <ul style="list-style-type: none"> <li>Introduced plants can directly compete for resources and reduce species abundance and diversity.</li> </ul>   |
| Rabbits  | <ul style="list-style-type: none"> <li>The European Rabbit (<i>Oryctolagus cuniculus</i>) can cause direct mortality of plants and significantly impact recruitment. Rabbits also damage habitat through the construction of warrens that can cause soil erosion, and provide habitat for other introduced species.</li> </ul> |
| <b>Native species</b>                            |  |
| Over-abundant native mammals                     | <ul style="list-style-type: none"> <li>Herbivory by over-abundant native herbivores (e.g., Eastern Grey Kangaroos (<i>Macropus giganteus</i>)) can damage native habitats.</li> </ul>  |

### Population dynamics

- Loss of genetic diversity
- Small, greatly reduced, and/or isolated populations are at increased risk of loss of genetic diversity, which leads to a heightened risk of reduced recruitment and/or increased mortality rates.

### Conservation Objectives

Conservation objectives are informed by the conservation status and criteria in 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, increase genetic fitness and minimise future population decline;
- Increase the Winged Peppercross' range and/or extent, by providing opportunities for natural movement/dispersal;
- Increase knowledge of biology, ecology, distribution, demography, emerging threats, and conservation requirements; and
- Support community participation and improve awareness of the Winged Peppercross and conservation of its habitat, including the restoration of cultural knowledge where appropriate.

### Conservation Actions

The actions below have been identified through expert input, 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. Holistic management of the cultural landscape where this species occurs is encouraged noting additional actions including cultural practice may benefit this 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  |
|---|--|
| Biomass management                      | <ul style="list-style-type: none"> <li>• Manage biomass as required to enhance habitat structure and composition, using ecologically and culturally appropriate means.</li> </ul>  |
| Climate adaptation                      | <ul style="list-style-type: none"> <li>• Consider the incremental and/or transformational adaptation actions that may be required to support the recovery of the species. This may be done by applying the climate adaptation lens and triggers for transformational adaptation from the Victorian Government's Climate Change Adaptation Action Plans.</li> </ul>   |
| Collect and store reproductive material | <ul style="list-style-type: none"> <li>• Maintain seed collections from target populations within the Victorian Conservation Seedbank at the Royal Botanic Gardens Victoria).</li> <li>• Undertake appropriate collection of propagules for long-term storage. Ensure that adequate supply and genetic diversity is secured for future reintroduction, and that essential information (such as dormancy) is known. Also ensure collection of mycorrhizal fungi where appropriate.</li> </ul> |
| Community engagement and awareness      | <ul style="list-style-type: none"> <li>• Identify, promote, and support opportunities for raising awareness and community involvement in conservation efforts, including through citizen science to inform improved management for the species.</li> <li>• Increase landholder awareness of the species and the impacts of livestock grazing. Provide guidance on the changes to grazing that may be required, such as exclusion, to support the recovery.</li> </ul>                        |

| Action                           | Description   |
|----------------------------------|---|
| Conservation management planning | <ul style="list-style-type: none"> <li>Apply best practice methods to determine areas of highest value for restoration and consideration of permanent protection mechanisms to conserve the species and its habitat.</li> </ul>   |
| Control feral pigs*              | <ul style="list-style-type: none"> <li>Implement and maintain effective control of feral pigs in priority areas.</li> </ul>   |
| Control introduced plants*       | <ul style="list-style-type: none"> <li>Implement and maintain effective control of introduced plants in priority areas and undertake revegetation with appropriate native species, where required.</li> </ul>   |
| Control rabbits*                 | <ul style="list-style-type: none"> <li>Implement and maintain effective control of rabbits in priority areas.</li> </ul>  |
| Manage native species            | <ul style="list-style-type: none"> <li>Develop and apply management techniques to maintain appropriate abundance and diversity of native species where required.</li> </ul>   |
| Permanent protection*            | <ul style="list-style-type: none"> <li>Investigate incentives, voluntary agreements, covenants, and other permanent protection measures to protect and restore habitat.</li> </ul>  |
| Protect key habitat              | <ul style="list-style-type: none"> <li>Ensure that species distribution data and ecological information is available and considered in planning for developments, land use changes and utilities maintenance. Ensure that incremental losses are included in consideration of potential losses.</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.</li> </ul>  |
| Survey and monitoring            | <ul style="list-style-type: none"> <li>Monitor representative populations to determine trends and management needs.</li> <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  |
|-----------------------|--|
| Manage native species | <ul style="list-style-type: none"> <li>Management techniques applied to mitigate the threat of herbivory from Eastern Grey Kangaroos (<i>Macropus giganteus</i>) in priority areas.</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](#)
- [Biodiversity Knowledge Framework](#)

## Further Information

- [Winged Peppercross Species Forecast Report](#)
- [Threatened Species Assessment Report - Winged Peppercross \(\*Lepidium monoplocooides\*\)](#)
- [Victoria's changing climate - understanding the impacts of climate change in Victoria](#)
- [Genetic Risk Index](#)
- [Commonwealth Threat Abatement Plans](#)
- [Flora and Fauna Guarantee Regulations 2020](#)
- [IUCN criteria summary](#)
- [Natural Environment Climate Change Adaptation Action Plan 2022-2026](#)

## Get Involved and Take Action

If you are interested in supporting this species' recovery, there are some important things 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 are 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 weeds or introduced 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/>

## Indigenous Data Sovereignty

DEECA is committed to recognising and enabling Indigenous Data Sovereignty (IDS). Indigenous data comprise any information or knowledge of species and Country collected or recorded by, or about, Traditional Owners. IDS asserts Traditional Owner rights to access and have governance over the collection, ownership and use of their data, including that which is included or referred to in this Action Statement.

### Acknowledgement

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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