

Action statement

Flora and Fauna Guarantee Act 1988

Open Marshwort (*Nymphoides geminata*)

Taxon ID: 502289

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



Open Marshwort. Image by Damien Cook.



This habitat distribution model displays the indicative range of Open Marshwort 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)(i)(ii)(iii)(iv)(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:
 - 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 numbers of mature individuals.

Corresponding International Union for the Conservation of Nature (IUCN) criteria: A2c+3c; B2ab(i,ii,iii,iv,v).

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 [Open Marshwort Species Forecast Report](#) and [VicFlora](#).

Threats

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

Threat	Description
Altered hydrology	
Altered water regime	<ul style="list-style-type: none"> Changes to wetland hydrology, because of local wetland draining or hydrological changes upstream or in the surrounding landscape, can lead to habitat loss and plant mortality.
Climate change	
Altered rainfall and temperature regimes	<ul style="list-style-type: none"> Reduced annual rainfall and increased maximum temperatures will reduce the availability of groundwater outflow and therefore surface water flow and refuge habitat.
Increased frequency and/or length of droughts	<ul style="list-style-type: none"> Drying and warming of the environment, including droughts, may lead to habitat changes, and impact recruitment and/or mortality rates.
Fire	
Altered fire regimes	<ul style="list-style-type: none"> Both infrequent and frequent fire, may lead to population decline and alter vegetation structure and habitat quality.
Fire management activities	<ul style="list-style-type: none"> Fire management operations such as creation of fuel breaks (soil disturbance, slashing) may lead to siltation, remove habitat, cause mortality of individuals, and reduce regeneration.
Habitat loss, degradation or modification	
Land use change	<ul style="list-style-type: none"> Ploughing of ephemeral wetlands can damage or lead to the loss of these habitats.
Livestock	<ul style="list-style-type: none"> Livestock can cause habitat degradation through the combined effects of herbivory, trampling, soil compaction, pugging of wet areas, and excess nutrient loads.
Human disturbance	
Ground disturbance	<ul style="list-style-type: none"> Trampling and the use of off-road motor vehicles impacts the soil, damages habitat and may directly and indirectly cause species mortality.
Road and track construction or maintenance	<ul style="list-style-type: none"> Construction and maintenance of waterway crossings, roads and tracks expose the species and habitat to disturbance from run-off, soil erosion, siltation, and weed and pathogen introduction, in the immediate area and downstream.
Introduced species	
Deer	<ul style="list-style-type: none"> Introduced deer species (Sambar deer (<i>Cervus unicolor</i>), Red Deer (<i>Cervus elaphus</i>) and Fallow Deer (<i>Dama dama</i>)) degrade habitat through herbivory, antler-rubbing, trampling, pugging of wet soils, increasing nutrient loads, erosion of waterway edges, and increasing the accessibility of habitat to introduced predators and introduced plants.
Feral horses	<ul style="list-style-type: none"> Feral horses (<i>Equus caballus</i>) severely degrade habitat through herbivory, trampling, pugging of wet soils, increasing nutrient loads, and erosion of waterway edges. Their

Threat	Description
	presence can also disperse seeds from introduced plant species, altering habitat composition and structure.
Introduced herbivores	<ul style="list-style-type: none"> Introduced herbivores degrade habitat through herbivory, trampling, pugging of wet soils, increasing nutrient loads, erosion of waterway edges, and increasing the accessibility of habitat to introduced predators and introduced plants.
Introduced plants	<ul style="list-style-type: none"> Introduced plants can directly compete for resources and reduce species abundance and diversity.

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 Open Marshwort's 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 Open Marshwort 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	<ul style="list-style-type: none"> Undertake biodiversity values check prior to fuel management in areas of the species habitat, to confirm treatment suitability and timing. Ensure that species distribution data and ecological information is available and considered in fire management activities.
Community engagement and awareness	<ul style="list-style-type: none"> 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 exclusion, to support the recovery of the species.
Control deer*	<ul style="list-style-type: none"> Implement and maintain effective control of deer in priority areas.
Control feral horses*	<ul style="list-style-type: none"> Implement and maintain effective control of feral horses in priority areas.
Control introduced herbivores*	<ul style="list-style-type: none"> Implement and maintain effective control of introduced herbivores in priority areas.
Control introduced plants*	<ul style="list-style-type: none"> Implement and maintain effective control of introduced plants in priority areas and undertake revegetation with appropriate native species, where required.

Action	Description
Ecological fire regime*	<ul style="list-style-type: none"> Implement fire management actions that promote an appropriate fire regime for the species.
Manage environmental water	<ul style="list-style-type: none"> Explore options for the provision of environmental water where required.
Manage public access	<ul style="list-style-type: none"> Exclude access from horse-riding, vehicles and motorbikes, and discourage human trampling through the provision of appropriate fencing, signage and community education.
Manage road and track works	<ul style="list-style-type: none"> Protect habitat from disturbances caused by track, bridge and ford construction and maintenance.
Permanent protection*	<ul style="list-style-type: none"> Investigate incentives, voluntary agreements, covenants, and other permanent protection measures to protect and restore habitat.
Protect key habitat	<ul style="list-style-type: none"> Minimise alterations to hydrological regimes upstream or in surrounding landscapes.
Survey and monitoring	<ul style="list-style-type: none"> 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. Monitor representative populations to determine trends and management needs.

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

Past Actions

The compilation process for this action statement did not identify any past management actions undertaken in the last 10 years. If you are aware of recent actions that have been undertaken to benefit this species, please contact threatened.species@deeca.vic.gov.au

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

- [Open Marshwort Species Forecast Report](#)
- [Threatened Species Assessment Report - Open Marshwort \(*Nymphoides geminata*\)](#)
- [Victorian Deer Control Strategy](#)
- [Victoria's changing climate - understanding the impacts of climate change in Victoria](#)
- [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 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 \(environment.vic.gov.au\)](https://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 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 \(environment.vic.gov.au\)](https://environment.vic.gov.au)

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

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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