# **Action statement**

Flora & Fauna Guarantee Act 1988

## Violet Bladderwort (Utricularia violacea)

Taxon ID: 503482

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**



Violet Bladderwort. Image from Atlas of Living Australia.

Violet Bladderwort Victorian Biodiversity Atlas (VBA) records since 1970. See <u>NatureKit</u> for an interactive map. The Violet Bladderwort also occurs outside of Victoria.

#### **Conservation Status**

#### **Endangered**

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

This means that:

- Its geographic distribution is highly restricted; and
- the distribution of the population or habitat of the taxon 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; and
- there are extreme fluctuations in the number of mature individuals.

Corresponding International Union for the Conservation of Nature (IUCN) criteria: B2ab(i,ii,iii,iv)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  $\frac{\text{Violet Bladderwort Species}}{\text{Forecast Report}}$  and  $\frac{\text{VicFlora}}{\text{VicFlora}}$ .

### **Threats**

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

Threat	Description
Climate Change	
Altered rainfall and temperature regimes	<ul> <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>
Fire	
Altered fire regimes	<ul> <li>A hotter, drier climate may increase the likelihood or frequency of fire impacting habitat, with the potential to reduce habitat extent and/or condition.</li> </ul>
	<ul> <li>Both infrequent and frequent fire, may lead to population decline and alter vegetation structure and habitat condition.</li> </ul>
	<ul> <li>Fires (including planned burns) that are more frequent than the species' tolerable fire interval can lead to mortality, seedbank exhaustion and reduced recruitment.</li> </ul>
	The optimal fire regime for Violet Bladderwort is not known.
Fire management activities	<ul> <li>Fire management operations such as creation of fuel breaks (soil disturbance, slashing) may remove habitat, cause mortality of individuals, and reduce regeneration.</li> </ul>
Habitat loss, degradation	on or modification
Land use change	<ul> <li>Land use change alters vegetation extent and condition, and may impact water regimes, contributing to habitat loss and degradation.</li> </ul>
	<ul> <li>Land use changes of potential concern to Violet Bladderwort include cropping, wetland drainage, fire management activity, stock agistment, site conversion to woodlot and farm forestry and large-scale plantation establishment.</li> </ul>
Livestock	<ul> <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>
Plantation operations	<ul> <li>Establishment of new plantations may remove or degrade habitat. Operational management of plantations may cause disturbance to native habitats, groundwater and surface flows, and may result in direct mortality of some individuals.</li> </ul>
	<ul> <li>Of particular concern for Violet Bladderwort is the potential for damage to plants or habitat from pesticide spray drift, run-off from track networks, weed invasion and the impact of increased water use by regenerating young trees.</li> </ul>
	<ul> <li>The impacts of plantation operations on habitats and groundwater may be exacerbated by climate change.</li> </ul>

## **Altered hydrology** Altered wetland water Changes to wetland hydrology, as a result of local wetland draining or regime hydrological changes upstream or in the surrounding landscape, can lead to habitat loss and plant mortality. **Human disturbance** Construction, Construction and development may result in direct removal of habitat, or indirect development and/or impacts to habitat through changes to water regime, increased risk of weed infrastructure incursion, and increased access to native habitats by introduced predators and domestic pets. **Introduced species** Feral pigs Feral pigs (Sus scrofa) change vegetation structure; engage in pugging and wallowing behaviours that compact soils; cause erosion; and degrade water quality or wetland function. Feral pigs can also introduce nutrients, and contribute to the dispersal of other introduced plants and animals into habitat. Introduced herbivores 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. Of particular concern to Violet Bladderwort are introduced deer. **Pollutants and toxicants** Nutrient enrichment Application of fertiliser or increased nutrient loads from livestock grazing within or adjacent to subpopulations of Violet Bladderwort may impact plants and habitat. Nutrient enrichment alters soil chemistry, habitat structure and composition, and ecosystem function, reducing habitat extent and/or condition, and potentially impacting site persistence. Pesticide use Spray drift or off-target damage from herbicide application within or immediately adjacent to populations may impact recruitment and may cause mortality of Violet Bladderwort.

#### **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 and minimise future population decline.
- Increase the Violet Bladderwort'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 Violet Bladderwort 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 <a href="NatureKit">NatureKit</a>.

Action	Description
Avoid and/or mitigate impacts associated with fire management	<ul> <li>Ensure that species distribution data and ecological information is available and considered in fire management activities.</li> </ul>
	<ul> <li>Undertake biodiversity values check prior to fuel management in areas of the species habitat, to confirm treatment suitability and timing.</li> </ul>
Collect and store reproductive material	<ul> <li>Undertake appropriate seed collection 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.</li> </ul>
Community engagement and awareness	<ul> <li>Continue to identify, promote, and support opportunities for community involvement in conservation efforts.</li> </ul>
	<ul> <li>Continue to raise landholder and broader community awareness of the importance of protecting habitat and managing threats.</li> </ul>
	<ul> <li>Increase landholder awareness of the species presence and ecological needs, and the impacts of practices such as livestock grazing and pesticide use 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.</li> </ul>
	<ul> <li>Work with key stakeholders to reduce threats and encourage adherence to behaviours that support a healthy environment.</li> </ul>
Conservation management planning	<ul> <li>Review and update, or develop, relevant plans or planning tools to support conservation management of Violet Bladderwort.</li> </ul>
Control feral pigs*	Implement and maintain effective control of feral pigs in priority areas.
Control introduced herbivores*	<ul> <li>Implement and maintain effective control of introduced herbivores, including deer, in priority areas.</li> </ul>
Develop, update and apply forestry protections	<ul> <li>Incorporate measures to protect relevant environmental values into timber harvesting plans for plantations.</li> </ul>
	<ul> <li>Work with plantation managers to identify important populations.</li> </ul>
	<ul> <li>Review of strategies to minimise spray drift during plantation management (notably at re-establishment).</li> </ul>
	<ul> <li>Survey potential habitat within existing plantations and planned expansions, with policy for new plantations to ensure remnant habitat is sufficiently buffered.</li> </ul>
	Consider increasing buffering for important populations in plantations.
Ecological fire regime *	<ul> <li>Implement fire management actions that promote an appropriate fire regime for the species.</li> </ul>
Improve habitat connectivity	Establish new areas of the vegetation community to connect remnant patches.

Action	Description
Permanent protection*	<ul> <li>Investigate incentives, voluntary agreements, covenants, and other permanent protection measures to protect and restore habitat.</li> </ul>
Protect key habitat	<ul> <li>Ensure that species distribution data and ecological information is available and considered in planning for developments, land use changes and utilities maintenance. Ensure catchment impacts and habitat buffer requirements for Violet Bladderwort are considered. Identify opportunities to manage threats from land use change and development, including programs to encourage protection and management of remaining habitat areas and to restore habitat and/or improve habitat connectivity.</li> </ul>
	<ul> <li>Minimise alterations to hydrological regimes upstream or in surrounding landscapes.</li> </ul>
Research	<ul> <li>Improve understanding of reproductive requirements, including pollinators and pollination regimes and seed germination cues.</li> </ul>
	<ul> <li>Improve understanding of, and develop guidelines for, habitat restoration and management approaches.</li> </ul>
	<ul> <li>Investigate the impacts of known threats and potential management actions, including consideration of landscape scale trends in land use change and development.</li> </ul>
	<ul> <li>Investigate and determine a fire regime that meets the species' ecological requirements and promotes its recovery.</li> </ul>
Restoration and/or revegetation*	<ul> <li>Undertake restoration and/or revegetation to increase habitat suitability and/or create new habitat areas.</li> </ul>
Survey and monitoring	<ul> <li>Monitor populations at known sites and other suitable locations, to assess distribution, population trends and habitat condition.</li> </ul>
	<ul> <li>Monitor the impact of threats to inform management interventions.</li> </ul>
	<ul> <li>Undertake targeted field surveys at a seasonally appropriate time to confirm the extent of all known populations and seek to discover previously undetected populations based on predicted habitat and ecological information.</li> </ul>

<sup>\*</sup>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
Develop, update, and apply forestry protections	<ul> <li>The risk of forestry operations was considered for this species in 2022 under the Victorian Government Threatened Species and Communities Risk Assessment. Interim protections were not found to be required.</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**

- Violet Bladderwort Species Forecast Report
- Threatened Species Assessment report Violet Bladderwort (Utricularia violacea)
- Threatened Species and Communities Risk Assessment
- 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: <u>Action</u> statements (environment.vic.gov.au)

To identify the relevant Traditional Owners, use the <u>Aboriginal Cultural Heritage Register and Information System</u> (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 <a href="mailto:threatened.species@deeca.vic.gov.au">threatened.species@deeca.vic.gov.au</a>

#### **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 <u>Protecting Victoria's Environment –</u> <u>Biodiversity 2037</u>.
- 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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ISSN 1448-9902 (online)

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