Action statement

Flora and Fauna Guarantee Act 1988

Brown-lip Leek-orchid (*Prasophyllum spadiceum*)

Taxon ID: 507291

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

Brown-lip Leek-orchid. Image source: Atlas of Living Australia.

Brown-lip Leek-orchid Victorian Biodiversity Atlas (VBA) records since 1970. See NatureKit for an interactive map. This species also occurs outside of Victoria.

Conservation Status

Critically Endangered

Listing criteria: 3.1.1 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 very severe reduction in population size.

Corresponding International Union for the Conservation of Nature (IUCN) criteria: A2bce+3ce+4bce.

More information on IUCN listing criteria can be found here: IUCN Red List Criteria.

Species Information

The Brown-lip Leek-orchid also occurs outside of Victoria where it may have a different conservation status throughout its broader distribution. Species information such as its description, distribution, ecology and references are provided in the Brown-lip Leek-orchid Species Forecast Report, VicFlora and the Atlas of Living Australia.

Threats

The threats below have been identified by input from western scientists, and from databases, decision support tools and published literature. Traditional Owners may have additional threats to those listed for this species.

Threat	Description
Climate change	
Altered rainfall and temperature regimes	• Climate change, increasing temperature and altered rainfall are likely to magnify existing threats and may reduce the stability, extent, and condition of habitat.
Increased frequency and/or length of droughts	• Drying and warming of the environment, including droughts, may to lead to habitat changes, and impact recruitment and/or mortality rates.
Fire	
Altered fire regimes	• Overly frequent fire, and in some instances infrequent fire, may lead to population decline and alter vegetation structure and habitat quality. Fire intervals of less than 10-15 years may limit soil seed bank replenishment and lead to the loss of older age classes, and fire intervals greater than 20 years may diminish seedbank persistence.
	• A hotter, drier climate may increase the frequency and severity of fire impacting habitat, with the potential to reduce habitat extent and/or condition.
	• Both infrequent and frequent fire, may lead to population decline and alter vegetation structure and habitat condition.
Habitat loss, degradation or modification	
Excess biomass	• Excess growth of either native or introduced plant species can change the structure and composition of habitat.
Land use change	• Land use change alters vegetation extent and condition, and may impact water regimes, contributing to habitat loss and degradation.
Livestock	• Livestock can cause habitat degradation through the combined effects of herbivory, trampling, soil compaction, soil erosion, pugging of wet areas, and excess nutrient loads.
Human disturbance	
Lack of awareness	• 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.
Introduced species	
Introduced rodents	• Introduced rodent species can compete for resources in addition to causing direct mortality.
Rabbits	• The European Rabbit (*Oryctolagus cuniculus*) 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.
Native species	
Competition and/or herbivory by native species	• Competition for resources with, and/or herbivory by, other native species can impact habitat, recruitment and/or mortality rates. This threat is exacerbated where habitat loss or degradation reduces availability of resources.

Population dynamics	
Lack of pollination opportunities	• Lack of pollination opportunities or events contributes to low recruitment rates.
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 Brown-lip Leek-orchid'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 Brown-lip Leek-orchid and conservation of its habitat, including the restoration of cultural knowledge where appropriate.

Conservation Actions

The actions below have been identified by input from western scientists, and from databases, decision support tools and published literature. 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. Traditional Owners may identify other actions including cultural practice that will benefit this species, and may also need to review existing actions to ensure they are culturally appropriate. 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. In undertaking actions for this species, consider the full extent of the species' range.

Action	Description
Artificial pollination	• Mitigate low pollination opportunities by undertaking artificial pollination, to improve recruitment success.
Avoid and/or mitigate impacts associated with fire management	• 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.
Biomass management	• Manage biomass as required to enhance habitat structure and composition, using ecologically and culturally appropriate means.
Climate adaptation	• 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.

Action	Description
Collect and store reproductive material	• 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.
	• Maintain seed collections from target populations within the Victorian Conservation Seedbank at the Royal Botanic Gardens Victoria.
Community engagement and awareness	• 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.
	• 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 conservation outcomes.
Control introduced rodents	• Implement and maintain effective control of introduced rodents in priority areas.
Control rabbits*	• Implement and maintain effective control of rabbits in priority areas.
Ecological fire regime*	• Implement fire management actions that promote an appropriate fire regime for the species.
Establish and maintain fencing	• Establish and maintain fencing and/or other forms of protection to prevent access and damage to individuals or populations from introduced or native species where required.
Ex-situ management	• Establish and maintain ex-situ populations in suitable secure sites, to service the conservation objectives of the species.
Genetic rescue	• Investigate options for improving resilience through enhancing genetic exchange via physically linking populations with enhanced habitat, translocation, or genetic management in an ex-situ setting.
Manage native species	• Develop and apply management techniques to mitigate the threat of competition and/or herbivory from native species where required.
Research	• Identify and sequence mycorrhizal fungi to improve vascular plant cultivation and translocation outcomes.
	• Improve understanding of reproductive requirements, including pollinators, pollination regimes and seed germination cues.
Restoration and/or revegetation*	• Undertake restoration and/or revegetation to increase habitat suitability and/or create new habitat areas.
Survey and monitoring	• 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.
Translocation	• Design and implement a translocation program to meet the objectives of the action statement.

**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

- Brown-lip Leek-orchid Species Forecast Report
- Threatened Species Assessment Report - Brown-lip Leek-orchid (*Prasophyllum spadiceum*)
- Atlas of Living Australia – Open access to Australia's biodiversity data
- 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
- 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

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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Accessibility

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