Action statement

Flora & Fauna Guarantee Act 1988

Rough Eyebright *(Euphrasia scabra)*

Taxon ID: 501343

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

Rough Eyebright. Image by Kerry Seaton.

This habitat distribution model displays the indicative range of the Rough Eyebright based on occurrence records and likely habitat. See NatureKit for an interactive map. The Rough Eyebright also occurs outside of Victoria.

Conservation Status

Endangered

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

This means that:

- the Rough Eyebright's geographic distribution is highly restricted; and
- the distribution of the population or habitat 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 mature individuals; and
- there are extreme fluctuations in the number of mature individuals.

Corresponding International Union for the Conservation of Nature (IUCN) criteria:
B1ab(i,ii,iii,v)c(iv)+2ab(i,ii,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 Rough Eyebright Species Forecast Report and VicFlora.

Threats

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

Threat	Description
Climate Change	
Altered flowering or germination	• Rough Eyebright requires specific temperature regimes to support successful reproduction, including cold weather cues to promote flowering and germination. As conditions warm under climate change this may reduce recruitment success.
Altered rainfall and temperature regimes	• Predicted increase in temperature and probable reduction in run-off may reduce moisture availability and limit habitat suitability for Rough Eyebright.
Increased frequency or length of droughts	• Changes in frequency, intensity and duration of droughts may lead to altered hydrology, adult mortality, recruitment failure and habitat loss.
Fire	
Altered fire regimes	• Fire (including planned burns) during the growth phase of the species (spring – early autumn) after seedling emergence, but before seed is set, will likely cause mortality of plants and prevent seed bank replenishment. Too frequent fires may lead to depletion of the soil seedbank and alter habitat suitability. • A hotter, drier climate may increase the likelihood or frequency of fire impacting wetland vegetation, with the potential to reduce habitat quality and/or extent.
Habitat loss, degradation or modification	
Forestry operations	• Forestry operations in the catchment of Rough Eyebright, including timber harvesting, can impact the water table levels and hydrological regimes causing habitat degradation or loss. Management actions are available to reduce this threat.
Land use change	• Land use changes within catchments where Rough Eyebright occurs that alter site hydrology may reduce habitat suitability for the species. Historical land-uses (e.g., grazing, agriculture, mining, drainage, roading) have caused hydrological changes that may have reduced habitat suitability and led to loss of subpopulations at some sites where the species was previously present.
Livestock	• Grazing by livestock may impact the species by trampling, compaction of soil as well as direct grazing damage of individuals that can cause mortality.
Road and track maintenance	• Roadside populations are vulnerable to disturbance from run-off, soil erosion, and introduction of weeds and pathogens during road maintenance and fire suppression activities.

Threat	Description
Human Disturbance	
Recreational activities	• Individuals can occur near roadsides and on flat plains that are prone to accidental human and vehicle damage, which may result in mortality for some individuals.
Introduced species	
Introduced herbivores	• Introduced herbivores including deer species and feral horses (*Equus caballus*), impact Rough Eyebright and its habitat through browsing and trampling of plants, compacting soil, pugging and increasing the risk of erosion (degrading water quality), facilitating the spread of introduced plants, and limiting regeneration of seedlings. • Feral pigs (*Sus scrofa*) are an emerging threat and will likely impact populations in the near future causing similar impacts to deer (various species) and feral horses.
Introduced plants	• Introduced plants such as Yorkshire Fog-grass (*Holcus lanatus*), Blackberry (*Rubus fruticosus* spp. agg.), White Clover (*Trifolium repens*), Sweet Vernal-grass (*Anthoxanthum odoratum*), Spear Thistle (*Cirsium vulgare*), and St. Johns' Wort (*Hypericum perforatum*) outcompete for resources causing habitat degradation and limiting available space for recruitment.
Population Dynamics	
Loss of genetic diversity	• Small, isolated subpopulations are at increased risk of loss of genetic diversity and inbreeding depression, resulting in limited capacity to adapt to environmental change.
Small population size	• Low numbers of individuals increase the risk of stochastic events. The number of mature plants is low, and these plants occur in isolated subpopulations.

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, increase genetic fitness and minimise future population decline
- Increase knowledge of biology, ecology, distribution, demography, emerging threats, and conservation requirements.
- Support community participation and improve awareness of the Rough Eyebright 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	• Ensure that species distribution data and ecological information is available and considered in fire management activities. • Undertake biodiversity values check prior to fuel management in areas of the species habitat, to confirm treatment suitability and timing.
Biomass management	• Manage biomass as required using ecologically and culturally appropriate means.
Build resilience by translocation / gene mixing	• Use genetic data and understanding of climate change tolerance and refugia to inform development of a translocation strategy to improve resilience.
Community engagement and awareness	• Identify, promote and support opportunities for community education and involvement in conservation efforts for the species. • Inform and consult landholders and land managers where there are known subpopulations, to mitigate the risk of unintentional damage. This includes non-target effects of weed control, machinery use or inappropriate fire regimes. Encourage implementation of conservation management actions. • Increase landholder awareness of the Rough Eyebright and impacts of livestock grazing to the species. Provide guidance on the contexts where changes to grazing, such as exclusion or a change in stocking density, may be required to support the recovery of the species.
Control introduced herbivores *	• Implement effective management and control of deer, feral horses and feral pigs.
Control introduced plants*	• Implement effective management and control of introduced plants including Yorkshire Fog-grass, Blackberry, White Clover, Sweet Vernal-grass, Spear Thistle and St. John's Wort.
Develop, update and apply forestry protections	• Maintain prescriptions for this species under the *Code of Practice for Timber Production 2014 (as amended in 2022)* (the Code). • Where relevant, incorporate species-specific protection measures into plans and permits relating to timber harvesting operations in native forest on private land.
Ecological fire regime	• Implement fire management actions that promote an ecologically appropriate fire regime for the Rough Eyebright.
Establish and maintain fencing	• Maintain fencing of known subpopulations to minimise the impacts of herbivores or other disturbances. • Erect wire cages around plants at unfenced sites to protect from herbivory as required.
Ex-situ management	• Establish and maintain ex-situ living collections, including representation from a range of localities across the known ecological and geographic range of the species.

Action	Description
Research	• Undertake research into climate adaption requirements for Rough Eyebright to inform its future management. • Identify climate refuges that may be suitable for translocations. • Investigate and determine a suitable fire regime that meets the ecological requirements of the Rough Eyebright and promotes its recovery. • Undertake research into the genetic risks and management options for Rough Eyebright to promote the species' recovery.
Restore hydrology	• Investigate restoration of natural hydrology at sites where hydrology has been altered.
Survey and monitoring	• Maintain monitoring sites and continue to collect baseline data at Mundy's Plain, Nelsons and Little Bog Creek. • Monitor population size, distribution, the relative impacts of threatening processes and the effectiveness of management actions at all known locations. • Comprehensively search likely habitat and former known sites, map populations and enter records into the Victorian Biodiversity Atlas (VBA).

**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
Biomass control	• Biomass control trial (slashing) undertaken at Nelsons–Errinundra in 2015. • Yorkshire Fog-grass biomass control trials were conducted at Mundy's Plain.
Control introduced herbivores	• Deer control was undertaken near Bentley Plains and Mundy's Plains in 2020, 2021 and 2023.
Control introduced plants	• Blackberry and other weed control has been undertaken at Mundy's Plain.
Develop, update and apply forestry protections	• The Rough Eyebright has current species-specific prescriptions in the Code: – In the Gippsland and North East Forest Management Areas (FMAs): Apply a protection area over each population. – In the East Gippsland FMA: Apply a management area of 200 m radius 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. • The risk of forestry operations was considered for this species in 2020 under the Victorian Government Threatened Species and Communities Risk Assessment. Additional permanent protections were not found to be required.
Establish and maintain fencing	• Fencing to exclude horses and deer was established at Mundy's Plain in 2015.
Survey and monitoring	• Monitoring was undertaken at Mundy's Plain, Nelsons–Errinundra, and Little Bog Creek. Baseline quadrats were surveyed at Mundys Plain and fixed area counts undertaken at Nelsons and Little Bog Creek.

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

- Rough Eyebright Species Forecast Report
- Threatened Species Assessment report – Rough Eyebright (*Euphrasia scabra*)
- Commonwealth Species Profile and Threats database
- Threatened Species and Communities Risk Assessment
- Victoria's changing climate – understanding the impacts of climate change on Victoria
- Code of Practice for Timber Production 2014
- Genetic Risk Index
- 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 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)

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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Accessibility

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