

# Action statement

*Flora & Fauna Guarantee Act 1988*

## Mount Cole Grevillea (*Grevillea montis-cole* subsp. *montis-cole*)

Taxon ID: 504535

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



Mount Cole Grevillea. Image by Andre Messina.



This habitat distribution model displays the indicative range of the Mount Cole Grevillea based on occurrence records and likely habitat. See [NatureKit](#) for an interactive map. The Mount Cole Grevillea also occurs outside of Victoria.

### Conservation Status

#### Critically Endangered

**Listing criteria:** 3.1.2(a),(b)(i,ii,iii,iv,v) of the Flora and Fauna Guarantee Regulations 2020. This means that:

- The Mount Cole Grevillea’s geographic distribution is extremely 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 number of mature individuals.

**Corresponding International Union for the Conservation of Nature (IUCN) criteria:** B1ab(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 [Mount Cole Grevillea Species Forecast Report](#) and [VicFlora](#).

## Threats

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

Threat	Description
<b>Climate change</b>	
Increased frequency and/or length of droughts	<ul style="list-style-type: none"> <li>Drying and warming of the environment, including droughts, may lead to habitat changes, and impact recruitment and/or mortality rates.</li> </ul>
<b>Fire</b>	
Altered fire regimes	<ul style="list-style-type: none"> <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> <li>Frequent or intense fire may lead to population decline and alter vegetation structure and habitat quality.</li> <li>Planned burns that are more frequent than the species' tolerable fire interval can lead to seedbank exhaustion, reduced recruitment and mortality of recruits.</li> </ul>
Fire management activities	<ul style="list-style-type: none"> <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>
<b>Habitat loss, degradation or modification</b>	
Forestry operations	<ul style="list-style-type: none"> <li>Forestry operations have the potential to remove or degrade habitat, compact soils, contribute to erosion and sedimentation, exacerbate the spread of introduced species, pathogens and parasites, and cause mortality of individuals.</li> </ul>
<b>Human disturbance</b>	
Firewood collection	<ul style="list-style-type: none"> <li>Firewood collection can result in disturbance and damage to habitat and may result in some mortality of individuals.</li> </ul>
Recreational activities	<ul style="list-style-type: none"> <li>Recreational activities such as walking, horse-riding, cycling, trail bike riding, off-road driving, and camping may damage individuals and habitat, potentially impacting recruitment, mortality rates and/or persistence at the site.</li> </ul>
Road and track construction or maintenance	<ul style="list-style-type: none"> <li>Roadside populations are vulnerable to loss or damage to individuals and habitat, as a result of direct impacts of road construction and maintenance works (e.g., grading/mowing/slashing/lopping) and indirect impacts from associated run-off, soil erosion, and potential weed and pathogen introduction.</li> </ul>
<b>Introduced Species</b>	
Introduced herbivores	<ul style="list-style-type: none"> <li>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.</li> <li>Introduced herbivores of known or potential concern to Mount Cole Grevillea include Red Deer (<i>Cervus elaphus</i>), Sambar deer (<i>Cervus unicolor</i>), feral goats (<i>Capra hircus</i>), rabbits (<i>Oryctolagus cuniculus</i>) and hares (<i>Lepus europaeus</i>).</li> </ul>

Threat	Description
Introduced invertebrates	<ul style="list-style-type: none"> <li>Introduced invertebrates degrade habitat, disrupt ecosystem function, and/or impact directly on individuals through herbivory, predation, and competition for resources.</li> <li>Of potential concern to Mount Cole Grevillea is nectar robbing by European Honeybees which are ineffective pollinators and may reduce visitation by effective pollinators.</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>
<b>Native species</b>	
Mammals	<ul style="list-style-type: none"> <li>Herbivory by native mammals can impact habitat, recruitment and/or mortality rates. This threat is exacerbated where native mammals become over-abundant.</li> <li>Of particular concern to Mount Cole Grevillea are Black-tailed Wallabies (<i>Wallabia bicolor</i>).</li> </ul>
<b>Pathogens and disease</b>	
Parasites	<ul style="list-style-type: none"> <li>Plants in some locations demonstrate high levels of leaf damage and defoliation. The cause is not known, but it is suspected this is caused by leaf skeletonising invertebrates.</li> </ul>
Phytophthora cinnamomi	<ul style="list-style-type: none"> <li>Infection by <i>Phytophthora cinnamomi</i> leads to mortality, reduced fitness, reduced recruitment/reproduction, and local population declines of many plant species. Construction and maintenance of roads is a risk for spreading <i>Phytophthora cinnamomi</i>. The risk is greatest on private and rural roads due to a higher rate of vehicle movements without associated hygiene measures.</li> </ul>
<b>Population dynamics</b>	
Lack of pollination opportunities	<ul style="list-style-type: none"> <li>Lack of pollination opportunities or events contributes to low recruitment rates.</li> </ul>
Small population size	<ul style="list-style-type: none"> <li>Small populations have lower resilience to the risk of stochastic events, and increased risk of genetic decline.</li> </ul>

## 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, improve 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 Mount Cole Grevillea 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
Artificial pollination	<ul style="list-style-type: none"> <li>Mitigate low pollination opportunities by undertaking artificial pollination to improve recruitment success, if needed.</li> </ul>
Avoid and/or mitigate impacts associated with fire management	<ul style="list-style-type: none"> <li>Ensure that species distribution data and ecological information is available and considered in fire management activities.</li> <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 style="list-style-type: none"> <li>Continue to identify, promote and support opportunities for community involvement in conservation efforts.</li> <li>Continue to raise landholder and broader community awareness of the importance of protecting habitat and managing threats.</li> <li>Install signs to inform the community of the presence and importance of the species.</li> </ul>
Compliance and enforcement	<ul style="list-style-type: none"> <li>Undertake risk-based compliance and enforcement activities to limit the impacts of illegal firewood collection, off road trail-bikes and offroad driving to Mount Cole Grevillea.</li> </ul>
Conservation management planning	<ul style="list-style-type: none"> <li>Review and update, or develop, relevant plans or planning tools to support conservation management of Mount Cole Grevillea.</li> </ul>
Control introduced herbivores *	<ul style="list-style-type: none"> <li>Implement and maintain effective control of introduced herbivores 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, if necessary.</li> </ul>
Develop, update and apply forestry protections	<ul style="list-style-type: none"> <li>Maintain prescriptions for this species under the <i>Code of Practice for Timber Production 2014 (as amended in 2022)</i> (the Code).</li> <li>Where relevant, incorporate species-specific protection measures into plans and permits relating to timber harvesting operations in native forest on private land.</li> <li>Apply the following additional permanent protection as recommended in the Victorian Government Threatened Species and Communities Risk Assessment (TSCRA):             <ul style="list-style-type: none"> <li><i>Forest zoning amendment:</i> Within the West Regional Forest Agreement Region: The Secretary will establish Special Management Zone(s) of 200 m radius over populations of strategic importance as identified through comprehensive surveys.</li> </ul> </li> </ul>
Ecological fire regime *	<ul style="list-style-type: none"> <li>Implement fire management actions that promote an appropriate fire regime for the species.</li> </ul>

Action	Description
Ex-situ management	<ul style="list-style-type: none"> <li>Establish and/or maintain ex-situ populations in suitable secure sites, to service the conservation objectives of the Mount Cole Grevillea.</li> </ul>
Manage over-abundant 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>
Manage public access	<ul style="list-style-type: none"> <li>Manage public access to limit the risks of human disturbance.</li> </ul>
Manage road and track works	<ul style="list-style-type: none"> <li>Ensure distribution data are considered in planning road and track works.</li> </ul>
Minimise the spread of <i>Phytophthora cinnamomi</i>	<ul style="list-style-type: none"> <li>Implement vehicle, tool, and footwear hygiene to minimise risk of <i>Phytophthora cinnamomi</i> introduction or spread.</li> </ul>
Research	<ul style="list-style-type: none"> <li>Improve understanding of, and develop guidelines for, habitat restoration and management approaches.</li> <li>Improve understanding of population dynamics (e.g., recruitment, causes of mortality) to inform management priorities.</li> <li>Improve understanding of reproductive requirements, including pollinators and pollination regimes and seed germination cues.</li> <li>Investigate and determine a suitable fire regime that meets the species' ecological requirements and promotes its recovery.</li> <li>Investigate the impacts of known threats and potential management actions.</li> <li>Increase understanding of genetic risks and management options.</li> </ul>
Survey and monitoring	<ul style="list-style-type: none"> <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> <li>Monitor populations at known sites and other suitable locations to assess distribution, population trends and habitat condition.</li> <li>Monitor the impact of threats to inform management interventions.</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
Develop, update, and apply forestry protections	<ul style="list-style-type: none"> <li>The Mount Cole Grevillea has a current species-specific prescription in the Code: <ul style="list-style-type: none"> <li>In the Midlands Forest Management Area: Avoid disturbance to populations within the management area, Special Management Zones and General Management Zones.</li> </ul> </li> <li>The risk of forestry operations was assessed for the Mount Cole Grevillea in 2020 under the Victorian Government TSCRA. Additional permanent protections were recommended in 2022 and are currently being implemented.</li> </ul>

Past action	Description
Survey and monitoring	<ul style="list-style-type: none"><li>Targeted field surveys to identify important populations based on predicted habitat and ecological information undertaken in some areas of potential habitat in 2022.</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

- [Mount Cole Grevillea Species Forecast Report](#)
- [Threatened Species Assessment report – Mount Cole Grevillea \(\*Grevillea montis-cole\* subsp. \*Montis-cole\*\)](#)
- [Code of Practice for Timber Production 2014](#)
- [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: [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 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.



© The State of Victoria Department of Energy, Environment and Climate Action August 2023



This work is licensed under a Creative Commons Attribution 4.0 International licence. You are free to re-use the work under that licence, on the condition that you credit the State of Victoria as author. The licence does not apply to any images, photographs or branding, including the Victorian Coat of Arms, the Victorian Government logo and the Department of Energy, Environment and Climate Action (DEECA) logo. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>

ISSN 1448-9902 (online)

## Disclaimer

This publication may be of assistance to you but the State of Victoria and its employees do not guarantee that the publication is without flaw of any kind or is wholly appropriate for your particular purposes and therefore disclaims all liability for any error, loss or other consequence which may arise from you relying on any information in this publication.

## Accessibility

If you would like to receive this publication in an alternative format, please telephone the DEECA Customer Service Centre on 136186, email [customer.service@delwp.vic.gov.au](mailto:customer.service@delwp.vic.gov.au) or via the National Relay Service on 133 677 [www.relayservice.com.au](http://www.relayservice.com.au). This document is also available on the internet at [www.environment.vic.gov.au](http://www.environment.vic.gov.au)

