Action statement

Flora & Fauna Guarantee Act 1988

Mount Cassell Grevillea (Grevillea microstegia)

Taxon ID: 501542

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 Cassell Grevillea. Image from VicFlora.



This habitat distribution model displays the indicative range of the Mount Cassell Grevillea based on occurrence records and likely habitat. See <u>NatureKit</u> for an interactive map.

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:

- · its geographic distribution is highly restricted; 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 <u>Mount Cassell Grevillea Species Forecast Report</u> and <u>VicFlora.</u>

Threats

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

Threat	Description
Climate change	
Increased frequency and/or length of droughts	 Drying and warming of the environment, including droughts, is likely to lead to plant mortality and a lack of successful seedling recruitment.
Fire	
Altered fire regime	 Increases in fire frequency and intensity may damage habitat. Plants likely require longer than 10 years to attain reasonable levels of seed production. Fires occurring at greater frequency than one in ten years will impair recruitment.
	 A hotter, drier climate may increase the likelihood or frequency of fire impacting habitat, with the potential to reduce habitat quality and/or extent.
Fire management	 If planned burns occur too frequently, populations will have inadequate time to set seed.
	 Fire management operations such as track works and creation of fuel breaks (clearing, soil disturbance, slashing) may remove habitat, cause mortality of individuals, and reduce regeneration.
Introduced species	
Introduced herbivores	 Red Deer (Cervus elaphus) are highly concentrated in the area where the Mount Cassell Grevillea grows, and damage the plants and their habitat by browsing and trampling. Sambar Deer (Cervus unicolor) are an emerging threat.
	• Feral goats (Capra hircus) browse and trample young plants.
	 Rabbits (Oryctolagus cuniculus) and hares (Lepus europaeus) browse seedlings and young recruits.
Introduced plants	 Areas that are infested with introduced plants tend to have low abundance of Mount Cassell Grevillea due to competition for resources.
Native species	
Problematic native plants	• Prickly Teatree (<i>Leptospermum continentale</i>) and Prickly Wattle (<i>Acacia paradoxa</i>) can impact persistence of Mount Cassell Grevillea by competing for resources.
Habitat loss, degradation	on or modification
Vegetation clearing or damage	 Continuing removal of habitat includes direct removal and mortality of Mount Cassell Grevillea individuals.
Population dynamics	
Lack of pollinators	 Honeybees may reduce nectar availability for pollinating birds, potentially resulting in less visitation by the species' natural pollinators with the potential to impact successful pollination. The impact of this threat is not well understood.

Pathogens and diseas	е
Parasites	 Plants may be vulnerable to high levels of leaf damage and defoliation (seen in some other Victorian Grevillea species). The cause is not known, but it is suspected this is caused by leaf skeletonising invertebrates.
Phytophthora cinnamomi	 Infection by Phytophthora cinnamomi leads to mortality, reduced fitness, population size/reduction and reduced recruitment/reproduction.
	 Construction and maintenance of roads is a risk for spreading <i>Phytophthora cinnamomi</i>. The risk is greatest on private and rural roads.

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 Mount Cassell Grevillea'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 Mount Cassell 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
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.
Collect and store reproductive material	Undertake appropriate seed collection and storage.
Community engagement and awareness	 Promote the Mount Cassell Grevillea as part of the unique flora of the Grampians.
Compliance and enforcement	 Undertake risk-based compliance and enforcement activities to limit the illegal removal of habitat to the Mount Cassell Grevillea.
Control introduced herbivores *	 Implement effective management and control of Red Deer, Sambar Deer, feral goats, rabbits and hares.
Control introduced plants*	Implement effective management and control of introduced plants.
Ex-situ management	 Establish and maintain ex-situ populations in suitable secure sites e.g., botanic gardens, specialist growers.

Manage problematic native plants	 Implement effective control of problematic native species where they present a threat to the Mount Cassell Grevillea from competition.
Minimise spread of Phytophthora	 Implement vehicle, tool, and footwear hygiene to minimise the risk of Phytophthora cinnamomi introduction or spread.
Research	Identify pollinators and the pollination regime.
	 Investigate whether defoliation/leaf damage is a risk to this species, understand the cause of defoliation/leaf damage, and identify management options.
	 Quantify the genetic diversity within the standing plants and the structure of populations.
	 Investigate and determine a suitable fire regime that meets the ecological requirements of the Mount Cassel Grevillea and promotes its recovery.

^{*}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
Survey and monitoring	Population monitoring has been undertaken.

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 Cassell Grevillea Species Forecast Report.
- Threatened Species Assessment report Mount Cassell Grevillea (*Grevillea microstegia*)
- Victoria's changing climate drivers and impacts of climate change in Victoria
- Commonwealth Threat Abatement Plans
- 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> <u>statements (environment.vic.gov.au)</u>

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 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 <u>Protecting Victoria's Environment 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, 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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