# **Action statement**

Flora & Fauna Guarantee Act 1988

## Round-leaf Pomaderris (Pomaderris vacciniifolia)

Taxon ID: 502675

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**



Round-leaf Pomaderris. Image by Irene Proebsting.



This habitat distribution model displays the indicative range of the Round-leaf Pomaderris based on occurrence records and likely habitat. See <u>NatureKit</u> for an interactive map.

#### **Conservation Status**

### Critically endangered

Listing criteria: 3.1.1; 3.1.3(a)(b)(i) of the Flora and Fauna Guarantee Regulations 2020.

This means that:

- the Round-leaf Pomaderris has undergone, is suspected to have undergone, or is likely to undergo in the immediate future, a very severe reduction in population size; and
- the total number of mature individuals is very low, the number is likely to continue to decline at a very high rate, and each subpopulation is extremely small.

Corresponding International Union for the Conservation of Nature (IUCN) criteria: A3ce+4bce; C1+2a(i).

More information on IUCN listing criteria can be found here: <u>IUCN Red List criteria</u>.

#### **Species Information**

Species information such as its description, distribution, ecology and references are provided in the <u>Round-leaf</u> <u>Pomaderris Species Forecast Report</u> and <u>VicFlora</u>.

### **Threats**

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

Threat	Description
Introduced species	
Introduced herbivores	<ul> <li>Sambar Deer (<i>Cervus unicolor</i>) and to a lesser extent, Red Deer (<i>Cervus elaphus</i>) and Fallow Deer (<i>Dama dama</i>) damage plants through browsing and antler rubbing.</li> <li>Rabbits (<i>Oryctolagus cuniculus</i>) and hares (<i>Lepus europaeus</i>) browse plants, and feral goats (<i>Capra hircus</i>) browse and trample plants.</li> <li>Damage caused by introduced herbivores increases the risk of mortality and recruitment failure.</li> </ul>
Introduced plants	<ul> <li>Some populations are threatened by invasion of introduced plants, particularly Blackberry (<i>Rubus fruticosus</i> spp. agg.) on lower, damper slopes and Montpellier Broom or Cape Broom (<i>Genista monspessulana</i>) on drier, upper slope sites. Various perennial exotic grasses also inhibit seed germination, and Sweet Pittosporum (<i>Pittosporum undulatum</i>) outcompetes plants. Recruitment cannot occur under dense shade.</li> </ul>
Fire	
Altered fire regimes	<ul> <li>Round-leaf Pomaderris is a key fire response species adapted to a 15-year fire interval and is threatened by both repeated fires at intervals shorter than 10 years, and prolonged exclusion of fire for more than 20-25 years.</li> </ul>
	<ul> <li>A hotter, drier climate may increase the likelihood or frequency of fire impacting Round-leaf Pomaderris habitat, with the potential to cause direct mortality, and reduce habitat quality and/or extent.</li> </ul>
Fire management activities	<ul> <li>Populations are threatened by fire management and suppression activities, including the construction and regular slashing of fire breaks.</li> </ul>
	<ul> <li>The creation of defendable space around houses, to reduce fire risk, can lead to habitat loss and removal of plants.</li> </ul>
Climate change	
Altered rainfall regime	<ul> <li>Climatic drying, changing seasonality of rainfall events, and drought stress may cause adult mortality and leads to recruitment failure. More intense rainfall events may also cause recruitment failure if seeds are flooded and rot.</li> </ul>
Habitat loss, degradation	on or modification
Barriers to dispersal	<ul> <li>Habitat fragmentation from land clearing, residential development and roads, isolate populations and act as barriers for migration as dispersal distances are limited.</li> </ul>
Forestry operations	<ul> <li>Timber harvesting and associated regeneration burning can cause direct mortality and habitat degradation. While harvesting disturbance can trigger regeneration, regeneration burning can limit establishment, particularly where the burn interval post harvesting is too long, or where the burn season or timing is not optimal.</li> </ul>
Livestock	<ul> <li>On private land, cattle browsing, and trampling contributes to plant damage and poor recruitment.</li> </ul>

Threat	Description
Human disturbance	
Road and track construction or maintenance	<ul> <li>Many roadside populations are threatened by road maintenance works. Frequent slashing, and off-target impacts of herbicide treatments threatens populations along roadsides.</li> </ul>
Native species	
Birds	<ul> <li>Rosellas are observed to predate heavily on ripe fruits, contributing to the low fertility of ageing populations.</li> </ul>
Mammals	<ul> <li>Browsing by macropods (mostly Black-tailed Wallaby Wallabia bicolor and Eastern Grey Kangaroo Macropus giganteus) contributes to low recruitment of young plants.</li> </ul>
Over-abundant native plants	<ul> <li>Competition from dense undergrowth of Forest Wire-grass (<i>Tetrarrhena juncea</i>) and other native species is likely to be a threat at most known populations. This is particularly a concern in areas where disturbance, such as appropriate fire, is infrequent.</li> </ul>
Population dynamics	
Genetic decline	<ul> <li>Observed infertility is probably due to the genetic isolation of the small relict populations and may result from inbreeding depression.</li> </ul>
Small population size	<ul> <li>The very small size of all known populations is likely to lead to the observed low fecundity of many mature plants. Some mature plants never flower or produce viable seed, possibly because there are not enough individuals for pollen to be carried from one plant to another.</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, increase genetic fitness and minimise future population decline
- Increase the Round-leaf Pomaderris' range and/or extent, by providing opportunities for natural movement.
- Establish at least three new viable populations within its historic range.
- Increase knowledge of biology, ecology, distribution, demography, emerging threats, and conservation requirements.
- Support community participation and improve awareness of the Round-leaf Pomaderris 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	<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	Undertake appropriate seed collection and storage.
Community engagement and awareness	<ul> <li>Identify, promote and support opportunities for community education and involvement in conservation efforts for the species.</li> </ul>
	<ul> <li>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.</li> </ul>
	<ul> <li>Increase landholder awareness of the Round-leaf Pomaderris, 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.</li> </ul>
Control deer *	Implement effective management and control of deer, especially Sambar.
Control introduced herbivores *	Implement effective management and control of rabbits and goats.
Control introduced plants*	<ul> <li>Implement effective management and control of introduced plants, especially Blackberry and Montpelier Broom.</li> </ul>
Develop, update and apply forestry protections	Where relevant, incorporate species-specific protection measures into plans and permits relating to timber harvesting operations in native forest on private land.
	<ul> <li>Apply the following additional permanent protection as recommended in the Victorian Government Threatened Species and Communities Risk Assessment (TSCRA):</li> </ul>
	- Forest zoning amendments
	Within the Central Highlands and Gippsland Regional Forest Agreement Regions: The Secretary will establish Special Management Zone(s) of 200 m radius over Victorian Biodiversity Atlas records with 100 m accuracy or better including a 20 m buffer to exclude machinery disturbance.
Ecological fire regime	<ul> <li>Implement fire management actions that promote an ecologically appropriate fire regime for the Round-leaf Pomaderris.</li> </ul>
Establish and maintain fencing	Establish and maintain fencing to protect plants from the impacts of herbivores.
Manage built infrastructure	Consider Round-leaf Pomaderris populations and requirements in bushfire management planning and in the placement and design of built infrastructure.
Permanent protection	<ul> <li>Investigate incentives, voluntary agreements, covenants and other permanent protection measures to protect and restore habitat.</li> </ul>
Population supplementation	<ul> <li>Supplement populations at the edge of the species range, e.g., Warrandyte, Eltham south, northern fringes of the Latrobe Valley, Flowerdale district.</li> </ul>

Action	Description
Research	Investigate the causes of low fertility and low recruitment.
	<ul> <li>Investigate the role of soil pathogens, herbicides and relationships to other organisms in population decline.</li> </ul>
	<ul> <li>Undertake research to understand genetic risks and identify potential management options.</li> </ul>
	<ul> <li>Investigate and determine a suitable fire regime that meets the ecological requirements of the Round-leaf Pomaderris and promotes its recovery.</li> </ul>
Survey and monitoring	Monitor reproductive success, threats and response to management actions.
	<ul> <li>Comprehensively search likely habitat and map populations. In particular, determine the extent and abundance of the species in State forest areas north of Tyers.</li> </ul>
Translocation	Investigate options for linking or establishing additional populations.

<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
Collect and store reproductive material	<ul> <li>Seed was collected from eastern populations in 2017 and lodged in the Victorian Conservation Seedbank at the Royal Botanic Gardens Victoria.</li> </ul>
	<ul> <li>Seed was collected and plants propagated at a nursery, to establish new populations and to make plants available for purchase for gardens.</li> </ul>
Community engagement and awareness	<ul> <li>Community engagement has been undertaken with Landcare and private landowners to support conservation of the species on private land, and to raise community awareness about the species.</li> </ul>
Control deer	Deer have been managed and controlled at the landscape scale.
Control introduced plants	<ul> <li>Introduced plant control was undertaken around populations on private land in Christmas Hills and St Andrews.</li> </ul>
	Local government has supported landholders with grants for weed control.
Develop, update and apply forestry protections	<ul> <li>The risk of forestry operations was assessed for this species in 2020 under the Victorian Government TSCRA. Additional permanent protections were recommended in 2022 and are being implemented.</li> </ul>
Ex situ management	Seed was collected and plants propagated at a nursery, to establish new populations and to make plants available for purchase for gardens.
Fencing	<ul> <li>Fencing of established populations occurred around Smiths Gully and Christmas Hills to protect these from deer browsing.</li> </ul>
	Local government has supported landholders with grants for fences.
Research	<ul> <li>Research has been undertaken to understand how fire intervals impact this species.</li> </ul>

Past action	Description
	<ul> <li>Research to understand dispersal mechanisms and germination has been published in scientific literature.</li> </ul>
Survey and monitoring	<ul> <li>Populations in Gippsland on the Tyers Rawson Road and the Cowwarr Road were spatially mapped, and records submitted to the Victorian Biodiversity Atlas.</li> </ul>
Translocation	<ul> <li>Plants were propagated from cuttings and new populations were established on private properties around St Andrews, Arthurs Creek, Christmas Hills and Strathewen.</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**

- Round-leaf Pomaderris Species Forecast Report
- Threatened Species Assessment report Round-leaf Pomaderris (Pomaderris vacciniifolia)
- 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: <a href="Action">Action</a> statements (environment.vic.gov.au)

To identify the relevant Traditional Owners, use the <u>Aboriginal Cultural Heritage Register and Information System (ACHRIS) Welcome to Country and Acknowledgements Map.</u>

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 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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