Action statement

Flora & Fauna Guarantee Act 1988

Long-footed Potoroo *(Potorous longipes)*

Taxon ID: 11179

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

Long-footed Potoroo. Image by Dave Watts.

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

Conservation Status

Endangered

Listing criteria: 4.1.1 of the Flora and Fauna Guarantee Regulations 2020.

This means that:

- The Long-footed Potoroo has undergone, is suspected to have undergone, or is likely to undergo in the immediate future, a severe reduction in population size.

Corresponding International Union for the Conservation of Nature (IUCN) criteria: A2bce.

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 Long-footed Potoroo Species Forecast Report.

Threats

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

Threat	Description
Introduced species	
Introduced herbivores	• 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. • Of potential concern in areas of Long-footed Potoroo habitat are feral pigs (*Sus scrofa*), goats (*Capra hircus),* Sambar deer (*Cervus unicolor*), Red Deer (*Cervus elaphus*) and Fallow Deer (*Dama dama*), which can degrade habitat and increase risk of exposure to predators. Feral pigs can also compete directly for underground fungi, the main food source for Long-footed Potoroos.
Introduced plants	• Introduced plants change the structure and composition of Long-footed Potoroo habitats, resulting in changes to habitat extent and/or condition, and alterations in food resource availability.
Introduced predators	• Predation, particularly by foxes (*Vulpes vulpes*), is likely the most serious threat to the Long-footed Potoroo.
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. The drying of habitat may impact on the abundance of underground fungi which are a key food source for the Long-footed Potoroo.
Fire	
Altered fire regimes	• Fires (including planned burns) that are too frequent or intense can remove the habitat structure required for refuge and foraging by Long-footed Potoroos, increase predation risks, alter food resource availability, cause direct mortality and lead to loss of populations. • The impact of fire on abundance and distribution of fungi food sources for Long-footed Potoroo is not known. • A hotter, drier climate may increase the likelihood or frequency of fire, impacting habitat, with the potential to reduce habitat extent and/or condition including availability of food.
Fire management activities	• Fire management operations such as creation of fuel breaks (soil disturbance, slashing) may remove or modify habitat, cause mortality of individuals, reduce regeneration and increase the accessibility of habitat to introduced predators and introduced plants.
Population dynamics	
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.

Threat	Description
Population fragmentation	• Fragmentation of once connected populations into smaller, isolated populations increases the risk of genetic decline and associated changes to recruitment and/or mortality rates.
Small population size	• Small populations have lower resilience to the risk of stochastic events, and increased risk of genetic decline.
Habitat loss, degradation or modification	
Forestry operations	• 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.
Human disturbance	
Road and track construction or maintenance	• 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 or lopping) and indirect impacts from associated run-off, soil erosion, potential weed and pathogen introduction. Road and track construction can also enhance access by predators.
Pathogens and disease	
Toxoplasmosis	• Toxoplasmosis (infection with the *Toxoplasma gondii* parasite) is spread by feral cats and may impact susceptible individuals, impacting recruitment and/or mortality. However, there is uncertainty as to how this disease may affect the Long-footed Potoroo.

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 the Long-footed Potoroo'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 Long-footed Potoroo 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.
Community engagement and awareness	• Continue to raise landholder and broader community awareness of the importance of protecting Long-footed Potoroo habitat and managing threats. • Work with key stakeholders to reduce threats and encourage adherence to behaviours that support a healthy environment, including fox control on private land.
Control introduced herbivores *	• Implement and maintain effective control of feral pigs, feral goats and deer in priority areas.
Control introduced plants*	• Implement and maintain effective control of introduced plants where appropriate and undertake revegetation with appropriate native species if required.
Control introduced predators*	• Implement and maintain effective control of foxes in priority areas. This includes immediate and ongoing post-fire predator control where possible.
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.
Identify and protect refuges	• Identify and protect habitat areas that provide important refugia from disturbance events (e.g., fire) or significant weather events (e.g., drought).
Improve habitat connectivity	• Restore habitat and/or provide appropriate engineering solutions to improve connectivity between Long-footed Potoroo habitat patches where necessary.
Manage road and track works	• Ensure Long-footed Potoroo distribution data is considered in planning road and track works.
Mitigate the risks posed by pathogens and disease	• Identify and manage the risks associated with pathogens and/or diseases, considering management options to limit exposure, infection, and impact of infection.
Protect key habitat from direct and indirect disturbance	• Identify opportunities to manage threats of land use change and development, including programs to encourage protection and management of remaining habitat areas.
Research	• Investigate and determine a suitable fire regime that meets the Long-footed Potoroo's ecological requirements and promotes its recovery. • Investigate the impacts of known threats, including climate change, and potential management actions. • Improve understanding of the Long-footed Potoroo’s movements and/or dispersal, pathogens and diseases, habitat requirements and diet including the species of underground fungi that are important to the species throughout the year. • Improve understanding of population dynamics (e.g., sex ratios, recruitment, causes of mortality) to inform management priorities.

Action	Description
	• Improve understanding of, and develop guidelines for, habitat restoration and management approaches. • Increase understanding of genetic risks and management options.
Survey and monitoring	• Undertake targeted field surveys to confirm the extent of all known Long-footed Potoroo populations and seek to discover previously undetected populations based on predicted habitat and ecological information. • Monitor populations at known sites and other suitable locations to assess distribution, population trends and habitat condition. • Monitor the impact of threats to inform management interventions.

**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
Avoid and/or mitigate impacts associated with fire management	• Management of fire within the Long-footed Potoroo distribution considered as part of regional ecologically based fire management planning processes annually.
Control introduced predators	• Implemented effective ongoing fox control and management as part of the Southern Ark program in East Gippsland. • Extended fox baiting program undertaken in the Barry Mountains.
Develop, update and apply forestry protections	• The Long-footed Potoroo has a current species-specific prescription in the Code: – In the North East and East Gippsland Forest Management Areas, apply a management area of approximately 150 ha for each Long-footed Potoroo detection site that is outside the Core Protected Area (i.e. within Special Protection Zones and conservation reserves). • The risk of forestry operations was assessed for this species in 2020 under the Victorian Government Threatened Species and Communities Risk Assessment. Additional permanent protections were not found to be required.
Research	• Genetic material was collected from several sites in East Gippsland in 2022. • Tissue samples were taken from 40 Long-footed Potoroos captured in the Barry Mountains in 2022. • Remote camera surveys have been used successfully in 2020, 2021 & 2022 to refine the Habitat Distribution Model developed for the Barry Mountains population, and to evaluate the efficacy of the extended fox baiting program in the Barry Mountains.
Survey and monitoring	• The presence of Long-footed Potoroo has been monitored at ~150 sites in the Barry mountains, and at 700 camera-trap sites surveyed in 2016/2017, 2021 and 2022 across East Gippsland, with the species detected at over 200 of these sites. • Regular population monitoring has been undertaken at several sites in East Gippsland.

Past action	Description
	• Threat monitoring has been undertaken annually as part of the Southern Ark program, including the monitoring of bait-take to assess the abundance of foxes.

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

- Long-footed Potoroo Species Forecast Report
- Conservation Advice for Long-footed Potoroo (*Potorous longipes*)
- Commonwealth Species Profile and Threats database
- Code of Practice for Timber Production 2014
- Threatened Species and Communities Risk Assessment
- 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

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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