

# Action statement

*Flora and Fauna Guarantee Act 1988*

## Japanese Lady-fern (*Deparia petersenii* subsp. *congrua*)

Taxon ID: 500313

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



Japanese Lady-fern. Image source: Atlas of living Australia.



This habitat distribution model displays the indicative range of Japanese Lady-fern based on occurrence records and likely habitat. See [NatureKit](#) for an interactive map. This species also occurs outside of Victoria.

### Conservation Status

#### Endangered

**Listing criteria:** 4.1.1; 4.1.2(a)(b)(i)(ii)(iii)(iv)(v); 4.1.3(a)(b)(i) of the Flora and Fauna Guarantee Regulations 2020.

This means that:

- the taxon has undergone, is suspected to have undergone, or is likely to undergo in the immediate future, a severe reduction in population size; and
- its geographic distribution is highly 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 numbers of mature individuals; and
- the total number of mature individuals is low, the number is likely to continue to decline at a very high rate, and each subpopulation is very small.

**Corresponding International Union for the Conservation of Nature (IUCN) criteria:** A2ace+3ce+4ace; B2ab(i,ii,iii,iv,v); C1+2a(i).

More information on IUCN listing criteria can be found here: [IUCN Red List Criteria](#).

## Species Information

The Japanese Lady-fern also occurs outside of Victoria where it may have a different conservation status throughout its broader distribution. Species information such as its description, distribution, ecology and references are provided in the [Japanese Lady-fern Species Forecast Report](#), [VicFlora](#) and the [Atlas of Living Australia](#).

## Threats

The threats below have been identified by input from western scientists, and from databases, decision support tools and published literature. Traditional Owners may have additional threats to those listed for this species.

| Threat  | Description   |
|---|---|
| <b>Climate change</b>                         |   |
| Altered rainfall and temperature regimes      | <ul style="list-style-type: none"> <li>Climate change, increasing temperature and altered rainfall are likely to magnify existing threats and may reduce the stability, extent, and condition of habitat.</li> </ul>  |
| 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>  |
| Temperature extremes                          | <ul style="list-style-type: none"> <li>Climate change may increase the frequency and duration of heat-wave events, leading to increased risk of mortality.</li> </ul>   |
| <b>Fire</b>                                   |   |
| Altered fire regimes                          | <ul style="list-style-type: none"> <li>A hotter, drier climate may increase the frequency and severity of fire impacting habitat, with the potential to reduce habitat extent and/or condition.</li> <li>Increased frequency and intensity of fire may cause mortality of plants before they reach maturity. Fires contribute to vegetation change by opening the habitat and permitting drying winds to enter, facilitating overgrowth by short-lived shrubs and herbs, and allowing expansion of eucalypt species.</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 or degrade habitat, cause mortality of individuals, and reduce regeneration.</li> </ul>   |
| <b>Human disturbance</b>                      |   |
| Road and track construction or maintenance    | <ul style="list-style-type: none"> <li>Construction and maintenance of waterway crossings, roads and tracks expose the species and habitat to disturbance from run-off, soil erosion, siltation, and weed and pathogen introduction, in the immediate area and downstream.</li> </ul>   |
| <b>Introduced species</b>                     |   |
| Deer  | <ul style="list-style-type: none"> <li>Introduced deer species such as Sambar Deer (<i>Cervus unicolor</i>), Red Deer (<i>Cervus elaphus</i>), Fallow Deer (<i>Dama dama</i>) and Hog Deer (<i>Axis porcinus</i>) degrade habitat through herbivory, antler-rubbing, trampling, pugging of wet soils, increasing nutrient loads, causing erosion of waterway edges, and increasing the accessibility of habitat for other introduced species.</li> </ul>  |

### Native species

- |                            |  |
|----------------------------|--|
| Other native plant species | <ul style="list-style-type: none"> <li>Encroachment of eucalypt recruits from surrounding forest following intense fire events significantly impacts the retention of rainforest habitat. As this habitat transitions from an enclosed rainforest to an open forest dominated by eucalypts, shade tolerant and rainforest dependent understorey species will be displaced by light tolerant sclerophyll forest species.</li> </ul> |
|----------------------------|--|

### Pathogens and disease

- |             |  |
|-------------|--|
| Myrtle Wilt | <ul style="list-style-type: none"> <li>Myrtle Wilt is a natural disease of Myrtle Beech (<i>Nothofagus cunninghamii</i>). It is caused by a fungus (<i>Chalara australis</i>) infecting plants through wounded tissue, and almost always kills the infected tree. This is a major threat to habitat throughout areas where Myrtle Beech is the dominant or co-dominant canopy species. Understorey species will be impacted by changes in light, temperature and moisture as a result of a reduction in canopy cover caused by the disease.</li> </ul> |
|-------------|--|

## Conservation Objectives

Conservation objectives are informed by the conservation status and criteria in 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 Japanese Lady-fern's range and/or extent, by providing opportunities for natural movement/dispersal;
- Increase knowledge of biology, ecology, distribution, demography, emerging threats, and conservation requirements; and
- Support community participation and improve awareness of the Japanese Lady-fern and conservation of its habitat, including the restoration of cultural knowledge where appropriate.

## Conservation Actions

The actions below have been identified by input from western scientists, and from databases, decision support tools and published literature. Actions are listed in alphabetical order to allow all interested parties to prioritise based on their context, capacity and capability. Holistic management of the cultural landscape where this species occurs is encouraged. Traditional Owners may identify other actions including cultural practice that will benefit this species, and may also need to review existing actions to ensure they are culturally appropriate. 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](#). In undertaking actions for this species, consider the full extent of the species' range.

| Action  | Description  |
|---|--|
| 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> |

| Action                                  | Description  |
|---|--|
| Climate adaptation                      | <ul style="list-style-type: none"> <li>Consider the incremental and/or transformational adaptation actions that may be required to support the recovery of the species. This may be done by applying the climate adaptation lens and triggers for transformational adaptation from the Victorian Government's Climate Change Adaptation Action Plans.</li> </ul> |
| Control deer*                           | <ul style="list-style-type: none"> <li>Implement and maintain effective control of deer in priority areas.</li> </ul>  |
| Manage native plant species             | <ul style="list-style-type: none"> <li>Manage eucalypt encroachment in rainforest following intense fire events. Removal should occur within four years following fire, and focus on habitat for known threatened species.</li> </ul>  |
| Manage road and track works             | <ul style="list-style-type: none"> <li>Protect habitat from disturbances caused by track, bridge and ford construction and maintenance.</li> </ul>   |
| Mitigate the risks posed by myrtle wilt | <ul style="list-style-type: none"> <li>Minimise damage to the crown or root system of Myrtle Beech (<i>Nothofagus cunninghamii</i>) to limit infection by the airborne and waterborne spores of the fungal pathogen.</li> </ul>  |
| Research                                | <ul style="list-style-type: none"> <li>Investigate appropriate collection of spores for long-term storage. Ensure that adequate supply and genetic diversity is secured for future reintroduction, and that essential information (such as dormancy) is known. Also ensure collection of mycorrhizal fungi where appropriate.</li> </ul>                         |
| Survey and monitoring                   | <ul style="list-style-type: none"> <li>Monitor representative populations to determine trends and management needs.</li> </ul>   |
| Vegetation management                   | <ul style="list-style-type: none"> <li>Investigate localised management solutions to mitigate the impacts of increased frequency and intensity of fire.</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   |
|--------------|---|
| Control deer | <ul style="list-style-type: none"> <li>Implemented and maintained effective control of deer in priority areas.</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](#)
- [Biodiversity Knowledge Framework](#)

## Further Information

- [Japanese Lady-fern Species Forecast Report](#)
- [Threatened Species Assessment Report - Japanese Lady-fern \(\*Deparia petersenii\* subsp. \*congrua\*\)](#)
- [Atlas of Living Australia – Open access to Australia's biodiversity data](#)
- [Victorian Deer Control Strategy](#)
- [Victoria's changing climate - understanding the impacts of climate change in Victoria](#)
- [Genetic Risk Index](#)
- [Commonwealth Threat Abatement Plans](#)
- [Flora and Fauna Guarantee Regulations 2020](#)
- [IUCN criteria summary](#)
- [Natural Environment Climate Change Adaptation Action Plan 2022-2026](#)

## Get Involved and Take Action

If you are interested in supporting this species' recovery, there are some important things 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 are 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 weeds or introduced 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/>

## Indigenous Data Sovereignty

DEECA is committed to recognising and enabling Indigenous Data Sovereignty (IDS). Indigenous data comprise any information or knowledge of species and Country collected or recorded by, or about, Traditional Owners. IDS asserts Traditional Owner rights to access and have governance over the collection, ownership and use of their data, including that which is included or referred to in this Action Statement.

### Acknowledgement

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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