

# Action statement

*Flora and Fauna Guarantee Act 1988*

## Comb Wheat-grass (*Australopyrum retrofractum*)

Taxon ID: 500143

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



Comb Wheat-grass. Image by Royal Botanic Gardens Board.



This habitat distribution model displays the indicative range of Comb Wheat-grass 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:** 4.1.2(a)(b)(v) of the Flora and Fauna Guarantee Regulations 2020.

This means that:

- 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:
  - the numbers of mature individuals.

**Corresponding International Union for the Conservation of Nature (IUCN) criteria:** B1ab(v)+2ab(v).

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

### Species Information

The Comb Wheat-grass 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 [Comb Wheat-grass Species Forecast Report](#), [VicFlora](#) and the [Atlas of Living Australia](#).

## Threats

The threats listed below have been identified with input from ecologists, databases, decision support tools and published literature. Traditional Owners may have additional threats to those listed for this species. Threats are listed in alphabetical order under specific threat categories.

| 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>   |
| <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>Fire, including planned burns, that is 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 or degrade habitat, cause mortality of individuals, and reduce regeneration.</li> </ul>  |
| <b>Habitat loss, degradation or modification</b> |  |
| Livestock  | <ul style="list-style-type: none"> <li>Livestock can cause habitat degradation through the combined effects of herbivory, trampling, soil compaction, soil erosion, pugging of wet areas, and excess nutrient loads.</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> |
| Feral horses                                     | <ul style="list-style-type: none"> <li>Feral horses (<i>Equus caballus</i>) severely degrade habitat through herbivory, trampling, pugging of wet soils, increasing nutrient loads, and erosion of waterway edges. Their presence can also disperse seeds from introduced plant species, altering habitat composition and structure.</li> </ul>  |
| Feral pigs                                       | <ul style="list-style-type: none"> <li>Feral pigs (<i>Sus scrofa</i>) cause direct mortality and damage habitat through pugging and wallowing that compacts soils. Pigs can also cause erosion and increase nutrient loads that result in degraded water quality and changes to vegetation structure.</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> <li>Introduced plants change the structure and composition of the vegetation community, impacting the assemblage of species and ecosystem function.</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 Comb Wheat-grass' 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 Comb Wheat-grass and conservation of its habitat, including the restoration of cultural knowledge where appropriate.

## Conservation Actions

The actions listed below have been identified with input from ecologists, 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. In undertaking actions for this species, consider the full extent of the species' range.

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.

| Action  | Description   |
|---|---|
| Avoid and/or mitigate impacts associated with fire management | <ul style="list-style-type: none"> <li>• Undertake biodiversity values check prior to fuel management in areas of the species' habitat, to confirm treatment suitability and timing.</li> <li>• Ensure that species distribution data and ecological information is available and considered in fire management activities.</li> </ul>  |
| 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>  |
| Community engagement and awareness                            | <ul style="list-style-type: none"> <li>• Increase landholder awareness of the species and the impacts of livestock grazing. Provide guidance on the changes to grazing that may be required, such as exclusion, to support conservation outcomes.</li> <li>• Identify, promote, and support opportunities for raising awareness and community involvement in conservation efforts, including through citizen science, to inform improved management for the species.</li> </ul> |
| Control deer*   | <ul style="list-style-type: none"> <li>• Implement and maintain effective control of deer in priority areas.</li> </ul>   |
| Control feral horses*   | <ul style="list-style-type: none"> <li>• Implement and maintain effective control of feral horses in priority areas.</li> </ul>   |
| Control feral pigs*   | <ul style="list-style-type: none"> <li>• Implement and maintain effective control of feral pigs 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, where required.</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   |
|-----------------------|---|
| 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> </ul> |
|                       | <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>Implement localised vegetation management 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 feral pigs | <ul style="list-style-type: none"> <li>Implemented and maintained effective control of feral pigs in priority areas.</li> </ul> |

## Decision Support Tools

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 the following decision support tools:

- [Choosing actions for nature](#)
- [Biodiversity Knowledge Framework](#)

## Further Information

- [Comb Wheat-grass Species Forecast Report](#)
- [Threatened Species Assessment Report - Comb Wheat-grass \(\*Australopyrum retrofractum\*\)](#)
- [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](#)
- [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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