Action statement

Flora and Fauna Guarantee Act 1988

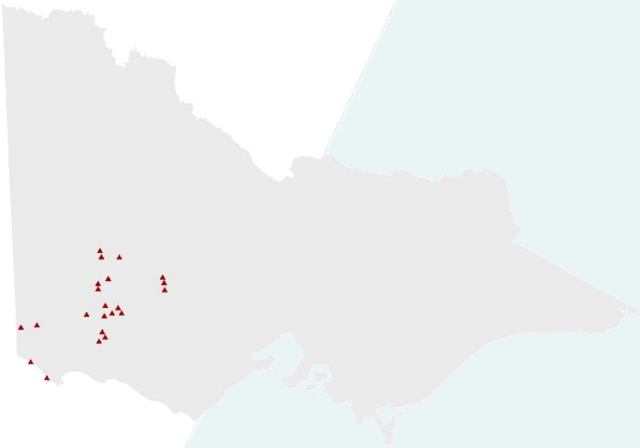
Western Swamp Cray (*Gramastacus insolitus*)

Taxon ID: 1671

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

Western Swamp Cray. Image source: Atlas of Living Australia.



Western Swamp Cray Victorian Biodiversity Atlas (VBA) records since 1970. See NatureKit for an interactive map. This species also occurs outside of Victoria.

Conservation Status

Endangered

Listing criteria: 4.1.2(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
- 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.

Corresponding International Union for the Conservation of Nature (IUCN) criteria:
B1ab(i,ii,iii,iv,v)+2ab(i,ii,iii,iv,v). More information on IUCN listing criteria can be found here: IUCN Red List Criteria.

Species Information

The Western Swamp Cray 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 Western Swamp Cray Species Forecast Report. 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
Altered hydrology	
Altered water regime	• Changes to flow or water regimes which do not align with the species' needs may impact habitat suitability, recruitment and/or mortality, and ultimately site occupancy.
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.
Extreme weather events	• Climate change may increase the frequency and intensity of storms and flooding, increasing erosion and impacting habitat condition, and potentially causing mortality events.
Increased frequency and/or length of droughts	• Drying and warming of the environment, including droughts, may to lead to habitat changes, and impact recruitment and/or mortality rates.
Temperature extremes	• Climate change may increase the frequency and duration of heat-wave events, leading to increased water temperature and risk of mortality.
Fire	
Bushfire	• Bushfires can result in mortality and habitat degradation. Important impacts can include the loss of key habitat features and food sources, and an increase in predation risks.
Fire management activities	• Fire management operations such as creation of fuel breaks (soil disturbance, slashing) may degrade or remove habitat, cause mortality of individuals, and reduce regeneration.
Habitat loss, degradation or modification	
Degradation of riparian and/or wetland vegetation	• Degradation and/or removal of vegetation in riparian and wetland habitats reduces habitat extent and/or condition, potentially impacting species persistence.
Instability of waterway beds and/or banks	• Instability of waterway beds and/or banks can result in habitat degradation and/or loss.
Livestock	• Livestock can cause habitat degradation through, trampling, soil compaction, soil erosion, pugging of wet areas, and excess nutrient loads.
Loss of key habitat features	• Loss of ecologically important habitat features such as shallow channels and floodplain wetland. Results in reduced habitat condition and/or extent, potentially impacting persistence.
Reduced wetland area	• Wetlands may be reduced through changes in land use, groundwater levels, surface flows, and/or rainfall, resulting in reduced habitat extent and/or condition.

Threat	Description
Human disturbance	
Construction, development and/or infrastructure	• Construction and development may result in direct removal of habitat and plant mortality, or indirect impacts to habitat through changes to water regimes and increased risk of weed incursion.
Lack of awareness	• Land managers and/or community members may inadvertently cause harm to a species or its habitat through a lack of awareness of the species' conservation needs.
Road and track construction or maintenance	• 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.
Introduced species	
Deer	• Introduced deer species such as Sambar Deer (*Cervus unicolor*), Red Deer (*Cervus elaphus*), Fallow Deer (*Dama dama*) and Hog Deer (*Axis porcinus*) degrade habitat through trampling, pugging of wet soils, increasing nutrient loads, causing erosion of waterway edges, and increasing the accessibility of habitat for other introduced species.
Pollutants and toxicants	
Pollution	• Pollutants including those from agricultural runoff, urban sources, and industrial activities, pose a threat to Western Swamp Cray and their habitat, either through direct impacts on health, recruitment and/or mortality, or indirectly by affecting food availability and/or habitat condition.
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.

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 Western Swamp Cray'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 Western Swamp Cray 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	• Ensure that species distribution data and ecological information is available and considered in fire management activities.
	• This includes approved work instructions, guidelines, and standards to help avoid and minimise impacts of activities on the threatened species.
Climate adaptation	• 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.
Community engagement and awareness	• 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. Work with key stakeholders to reduce the threats of human disturbance and encourage behaviours that support a healthy environment.
	• Work with key stakeholders to reduce the threats of human disturbance and encourage behaviours that support a healthy environment.
	• Work with land managers, planners and developers to minimise impacts from construction and development or identify alternative sites for placement of infrastructure.
Control deer*	• Implement and maintain effective control of deer in priority areas.
Ex-situ management	• Establish and maintain ex-situ populations in suitable secure sites, to service the conservation objectives of the species.
Genetic rescue	• Investigate options for improving resilience through enhancing genetic exchange via physically linking populations with enhanced habitat, translocation, or genetic management in an ex-situ setting.
Manage impacts from natural disaster events	• Identify and implement recovery actions for vulnerable populations impacted by natural disaster events (e.g., significant bushfire or flood events).
Manage road and track works	• Protect habitat from disturbances caused by road, track, bridge and ford construction and maintenance.
Minimise and mitigate the impacts of pollution	• Minimise or mitigate the impacts of pollution, by identifying and implementing available management options to address the source, transfer pathways, and impact of pollutants to the species.
Protect key habitat	• Manage water quality to support retention, restoration and/or creation of habitat and/or population persistence.
Restoration and/or revegetation*	• Undertake restoration and/or revegetation to increase habitat suitability and/or create new habitat areas.

**Indicates landscape-scale actions that may deliver benefits to multiple species*

Past Actions

The compilation process for this action statement did not identify any past management actions undertaken in the last 10 years. If you are aware of recent actions that have been undertaken to benefit this species, please contact threatened.species@deeca.vic.gov.au

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

- Western Swamp Cray Species Forecast Report
- Threatened Species Assessment Report - Western Swamp Cray (*Gramastacus insolitus*)
- 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

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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Accessibility

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