Action statement

Flora & Fauna Guarantee Act 1988

Diamond Python (Morelia spilota spilota)

Taxon ID: 62968

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



Diamond Python. Image by Nevil Amos.



This habitat distribution model displays the indicative range of the Diamond Python based on occurrence records and likely habitat. See <u>NatureKit</u> for an interactive map. The Diamond Python 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 Diamond Python 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: A2ace+3ce+4ce.

More information on IUCN listing criteria can be found here: IUCN Red List of Threatened Species

Species Information

Species information such as its description, distribution, ecology and references are provided in the <u>Diamond Python</u> <u>Species Forecast Report.</u>

Threats

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

Threat	Description		
Fire			
Altered fire regime	• Frequent and/or intense fire can lead to direct mortality, habitat degradation, the loss of ground refugia such as logs, and a reduction in prey. Climate change will likely result in more frequent and intense bushfires, further increasing the risk of these impacts to the species.		
Introduced species			
Deer and feral pigs	 Hog deer (Axis porcinus), Sambar deer (Cervus unicolor) and feral pigs (Sus scrofa) damage and degrade habitat. 		
Foxes and feral cats	 Foxes (Vulpes vulpes) and feral cats (Felis catus) prey on the species leading to population decline, particularly through predation of brooding females, eggs and hatchlings. 		
Habitat loss, degradation, or modification			
Forestry operations	 Forestry operations, including timber harvesting and regeneration practices, can damage and degrade habitat by reducing vegetation complexity and litter availability, prey density, and refugia (e.g., hollow trees and logs). 		
Population dynamics			
Loss of genetic diversity	 Due to the species' very restricted distribution and low population size, it is classified as 'very high' on the Genetic Risk Index. 		
Human disturbance			
Illegal taking (trapping, poisoning, collecting)	• The illegal wildlife trade and taking of individuals can reduce the population size.		
Road traffic	The species is sometimes killed by road traffic.		

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 and minimise future population decline.
- Increase the Diamond Python's range and/or extent, by providing opportunities for natural movement.
- Increase knowledge of biology, ecology, demography and conservation requirements through research and monitoring.
- Support community participation and improve awareness of the Diamond Python.

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 <u>NatureKit</u>.

Action	Description
Avoid and/or mitigate impacts associated with fire management	 Ensure species distribution data, and ecological information, is available and considered in fire management activities.
	 Undertake biodiversity values check prior to any planned burn in areas of habitat, to confirm burn suitability and timing.
	 Continue to protect refuge sites and undertake small-scale mosaic burns of different-aged patches to support the recovery of the species.
Community engagement and awareness	 Encourage protection of habitat on private land (for example through voluntary mechanisms and incentives).
	 Continue to encourage Victorians to play a role in stopping illegal wildlife trafficking through campaigns such as 'Break the Chain'.
Control deer and feral pigs*	 Implement effective management and control of deer and feral pig within Diamond Python habitat.
Control foxes and feral cats*	 Continue to implement effective management and control of foxes via the Southern Ark predator program.
	 Investigate options for effective management and control of feral cats within Diamond Python habitat.
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.
	 Apply the following additional permanent protection as recommended in the Victorian Government Threatened Species and Communities Risk Assessment (TSCRA):
	 Forest zoning amendment
	Within the East Gippsland Regional Forest Agreement Region, the Secretary will establish Special Protection Zone(s) of 100 ha of suitable habitat over individual or clusters of post-1970 VBA records (records with an accuracy of 100 m or better).
Monitor and enforce compliance	Maintain compliance patrols at locations where the species is known to occur.
	 Maintain restricted access to location information for the species in public databases.
Research	 Undertake an assessment of gene flow, population connectivity and genetic diversity.
	Further investigate the species' response to fire.

Action	Description
Survey and monitor	 Establish a long-term monitoring program to evaluate the geographic range of the species, collect habitat data, and tissue samples for genetic analysis.

*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 foxes	 Fox control has been undertaken as part of Southern Ark Program since 2004, including at Croajingolong National Park and to the west of the park at Stony Peak where this species occurs.
Determine and apply an appropriate burning regime for the species	 Special Protection Zones have been established since 2004 to exclude fire from refuge sites and allow for a small-scale mosaic of different-aged patches to avoid habitat deterioration and population decline.
Develop, update, and apply forestry protections	The Diamond Python has a current species-specific prescription in the Code:
	 In the East Gippsland Forest Management Area: Apply a protection area of 100 ha of suitable habitat for each locality of this species.
	 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.
Fire management	 Mosaic burning through most of the species' distribution has been undertaken since 2004.
Identify and implement post bushfire management actions	 Modelling published in 2022 optimised the design of biodiversity monitoring programs to track wildlife recovery after the 2019- 20 bushfires, including for Diamond Python.
Monitor and enforce compliance	 Prevention of illegally trafficking of reptiles in and out of Australia has been a focus of Crime Stoppers Victoria.
Research	 Research was undertaken on population extent, habitat use, and demographics as part of the Victorian Government's Bushfire Response and Recovery Program. This research, which included citizen science, also assessed the effects of fire, timber harvesting and introduced predators.

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:

- <u>Choosing actions for nature: NatureKit</u>
- Biodiversity Knowledge Framework

Further Information

- Diamond Python Species Forecast Report
- <u>Threatened Species Assessment report Diamond Python (Morelia spilota spilota)</u>
- Threatened Species and Communities Risk Assessment
- <u>Code of Practice for Timber Production 2014</u>

- Victoria's changing climate understanding the impacts of climate change in Victoria
- Commonwealth Threat Abatement Plans
- 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 / owner permissions, options and incentives for private land conservation, and engagement with Traditional Owners and public land managers here: <u>Action statements</u> (<u>environment.vic.gov.au</u>)

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

Interested parties are encouraged to work together across community, government, private and public land managers and Traditional Owners to undertake these actions and secure funding for their implementation.

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 <u>threatened.species@deeca.vic.gov.au</u>

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 –</u> <u>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 weeds and 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/

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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