# **Action statement**

Flora & Fauna Guarantee Act 1988

## Swift Parrot (Lathamus discolor)

**Taxon ID: 10309** 

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**



Swift Parrot. Image by Mick Roderick.



This habitat distribution model displays the indicative range of the Swift Parrot based on occurrence records and likely habitat in Victoria. See <a href="NatureKit">NatureKit</a> for an interactive map. The Swift Parrot also occurs outside of Victoria.

#### **Conservation Status**

#### **Critically Endangered**

Listing criteria: 3.1.1 of the Flora and Fauna Guarantee Regulations 2020.

## This means that:

• The Swift Parrot has undergone, is suspected to have undergone, or is likely to undergo in the immediate future, a very severe reduction in population size.

#### Corresponding International Union for the Conservation of Nature (IUCN) criteria: A3be

More information on IUCN listing criteria can be found here: <u>IUCN Red List criteria</u>.

## **Species Information**

Species information such as its description, distribution, ecology and references are provided in the <a href="Swift Parrot Conservation Advice">Swift Parrot Conservation Advice</a>.

#### **Threats**

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

Threat	Description
Habitat loss, degradation	on, or modification
Excess biomass	<ul> <li>Excess growth of either native or introduced plant species can change the structure and composition of habitat. Where regrowth of native trees and shrubs is unnaturally dense, this slows the development of larger, more productive, foraging trees.</li> </ul>
Forestry operations	<ul> <li>Timber harvesting operations in native forest have the potential to remove or degrade habitat and exacerbate the spread of introduced species, pathogens, and parasites.</li> </ul>
Livestock	<ul> <li>Livestock can cause habitat degradation and the loss of isolated foraging trees and small remnants through the combined effects of herbivory, ringbarking, trampling, soil compaction, soil erosion, pugging of wet areas, and excess nutrient loads.</li> </ul>
Reduced habitat connectivity	<ul> <li>Loss of habitat connectivity increases the distances that Swift Parrots must travel to find sufficient food resources. Although a highly mobile species, habitat fragmentation increases the amount of energy expended to find food, and exposes the birds to other risks (e.g., collision, predation) while travelling.</li> </ul>
Vegetation clearing or damage	<ul> <li>Swift Parrot habitat has been subject to historic extensive losses and fragmentation because of land use change, construction, development and/or infrastructure development or maintenance.</li> </ul>
	<ul> <li>Swift Parrot foraging habitat is subject to ongoing small and large losses because of land management activities such as agricultural intensification, cropping, and fertiliser use. Habitat remnants on private rural land continue to be lost through senescence or dieback with limited or no recruitment.</li> </ul>
	<ul> <li>Expansion of urban development is also contributing to continued habitat loss in some areas, including the loss or lopping of old trees that are preferred foraging habitat for the Swift Parrot.</li> </ul>
	<ul> <li>Increasing density of urban development may result in the loss or lopping of large foraging trees, given that Swift Parrots will feed in urban areas where food trees remain.</li> </ul>
Climate change	
Altered flowering or germination	<ul> <li>Climate change may change the timing and success of flowering events. This may impact on foraging opportunities for this nectivorous parrot.</li> </ul>
	<ul> <li>Reduced flowering, combined with other factors limiting food availability, may force birds into urban areas or to fly long distances across extensive areas of unsuitable habitat to find sufficient flowering trees.</li> </ul>
Altered rainfall and temperature regimes	<ul> <li>Climate change, increasing temperature and altered rainfall are likely to magnify existing threats and may reduce the stability, extent, and condition of habitat, including the reliability of food resources.</li> </ul>
	<ul> <li>Lerps (the sugary residue of sap-sucking psyllids and the preferred Swift Parrot food source when nectar is not available) form an important food source for Swift Parrots while in Victoria, and it is likely that the timing, abundance, and geographic distribution of lerps will be impacted by a changing climate.</li> </ul>
Increased frequency and/or length of droughts	<ul> <li>Drying and warming of the environment, including droughts, may lead to habitat changes, and affect recruitment and/or mortality rates.</li> </ul>
	<ul> <li>These changes may impact the geographic range, migration patterns, and population size.</li> </ul>

Threat	Description
Population dynamics	
Small population size	<ul> <li>Small populations have lower resilience to the risk of stochastic events, and increased risk of genetic decline.</li> </ul>
	<ul> <li>The Swift Parrot wild population size is estimated to be around 750 birds and declining. Both a Population Viability Analysis, and Specific Needs Assessment estimate that, without intervention, the risk of extinction in the wild within 20 years is high.</li> </ul>
Human disturbance	
Animal collision with built structures	<ul> <li>Individuals may collide with built structures (e.g., chain link mesh fences, powerlines, windows) when moving between habitat patches, causing mortality.</li> </ul>
Construction, development and/or infrastructure	<ul> <li>Construction and development and the installation of infrastructure (e.g., pipelines, powerlines) may result in direct removal of habitat.</li> </ul>
	<ul> <li>Onshore windfarms may cause direct mortality through collision. These developments may also reduce access to habitat if Swift Parrots avoid moving through wind farms.</li> </ul>
	<ul> <li>Solar farm developments can contribute to habitat loss, as isolated trees and small remnants are removed to provide sufficient space for solar farm facilities.</li> </ul>
Firewood collection	<ul> <li>Firewood collection can result in disturbance and damage to habitat. Large trees targeted by firewood collectors are often large forage trees.</li> </ul>
Recreational activities	<ul> <li>Illegal mountain-bike cycling, trail bike riding, and four-wheel driving, can facilitate widening and extension of tracks and trails that contributes to habitat loss and degradation, and introduces noise that may reduce the birds' use of otherwise suitable foraging areas.</li> </ul>
Road and track construction or maintenance	<ul> <li>Creation of roads and tracks for mountain-bike cycling, trail bike riding, and four- wheel driving can remove habitat for the Swift Parrot and introduce noise into areas of habitat that may create disturbance.</li> </ul>
Introduced species	
Introduced herbivores	<ul> <li>Introduced herbivores degrade habitat through herbivory, antler rubbing, and trampling; contributing to the death of large old trees and preventing recruitment of new trees to replace senescing old trees.</li> </ul>
	• In Swift Parrot habitat introduced herbivores of concern include deer, feral goats (Capra hircus), and rabbits (Oryctolagus cuniculus).
Introduced invertebrates	• Introduced invertebrates, especially the European Honeybee ( <i>Apis mellifera</i> ), impact directly on individuals through competition for resources. Apiaries and hives can produce up to 2,000 tonnes of honey each year from Swift Parrot foraging habitats in the Victorian box-ironbark woodlands on public land alone.
Fire	
Altered fire regimes	<ul> <li>A hotter, drier climate may increase the likelihood or frequency of fire impacting habitat, with the potential to reduce habitat extent and/or condition.</li> </ul>
	Increased fire frequency and intensity can result in reduced flowering events.

Threat	Description
Bushfire	<ul> <li>Bushfires can result in habitat degradation. Important impacts can include the loss of key habitat features (e.g., large old trees) and short-medium term loss of food resources.</li> <li>High levels of canopy scorch have the potential to impact food supply, by altering both flowering events and the presence of lerps for several years post-fire.</li> </ul>
	both nowering events and the presence of lerps for several years post life.
Fire management activities	<ul> <li>Fire management operations such as creation of fuel breaks (soil disturbance, slashing) may remove habitat, and reduce regeneration.</li> </ul>
Native species	
Over-abundant native birds	<ul> <li>Competition for limited food resources with other native birds may impact recruitment and/or mortality rates. This threat is exacerbated where large aggressive nectar- feeding birds such as Noisy Miner (<i>Manorina melanocephala</i>), Red Wattlebird (<i>Anthochaera carunculata</i>) and Rainbow Lorikeet (<i>Trichoglossus haematodus</i>) become over abundant. However, in some circumstances Swift Parrot flocks may effectively defend a foraging resource from over-abundant and aggressive competitors.</li> </ul>
Disease	
Psittacine beak and feather disease	<ul> <li>Psittacine beak and feather disease virus (a Circovirus) may impact the health of susceptible bird species, with the potential to directly impact recruitment and/or cause mortality, or reduce immune function, exposing individuals to higher risks from other pathogens, especially when combined with stress associated with competition for resources.</li> </ul>
	<ul> <li>There may be an increased risk of the disease through the rehabilitation and release of injured birds back into the wild.</li> </ul>

The above threats occur in the Victorian non-breeding range and migration route of Swift Parrots. Several important threats that need addressing occur in the breeding range of the birds which occur in Tasmania and are outside the scope of this document.

These threats include but are not limited to:

- Breeding habitat loss and degradation
- Predation of breeding adults, eggs, and nestlings, particularly by Krefft's Glider (*Petaurus notatus*), which has been introduced to the breeding range
- Competition for food, including from the introduced Large Earth Bumblebee (Bombus terrestris)
- Competition for nesting hollows
- Mortality on migration

## **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 knowledge of biology, ecology, distribution, demography, emerging threats, and conservation requirements.
- Support community participation and improve awareness of the Swift Parrot 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	<ul> <li>Ensure that distribution data and ecological information is available and considered in fire management activities.</li> </ul>
	<ul> <li>Undertake biodiversity values check prior to fuel management in areas of the species habitat, to confirm treatment suitability and timing.</li> </ul>
Community engagement and awareness	<ul> <li>Continue to engage citizen scientists in information gathering to inform improved management for the Swift Parrot.</li> </ul>
	• Continue to identify, promote, and support opportunities for community involvement in conservation efforts.
	<ul> <li>Continue to raise landholder and broader community awareness of the importance of protecting Swift Parrot habitat and managing threats, particularly on methods to reduce collision hazards in high-risk areas.</li> </ul>
	<ul> <li>Work with key stakeholders to reduce the threats of human disturbance and encourage adherence to behaviours that support a healthy environment.</li> </ul>
	<ul> <li>Increase landholder awareness of the Swift Parrot's presence and ecological needs, and the impacts of livestock grazing to the Swift Parrot and its habitat. Provide guidance on the changes to grazing that may be required, such as exclusion, to support the recovery of the Swift Parrot.</li> </ul>
Compliance and enforcement	<ul> <li>Undertake risk-based compliance and enforcement activities to limit the impacts of illegal native vegetation removal, illegal firewood collection, and illegal recreational activities to the Swift Parrot.</li> </ul>
Control introduced herbivores *	• Implement and maintain effective control of introduced herbivores in priority areas to limit impacts to tree health and regeneration in Swift Parrot foraging habitats.
Develop, update, and apply forestry protections	Maintain prescriptions for the Swift Parrot 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.
Ex-situ management	<ul> <li>Apply the outcomes of the 2023 Specific Needs Assessment, which identified the urgent need for an ex-situ conservation program to support recovery of the Swift Parrot.</li> </ul>
	<ul> <li>Design, establish and maintain an ex-situ breeding program in suitable secure sites, to service the conservation objectives of the Swift Parrot.</li> </ul>

Action	Description
Manage built infrastructure	<ul> <li>Consider the Swift Parrot's requirements and collision risks, in the placement and design of built infrastructure near key habitat. Include planning for appropriate buffers to limit off-site impacts of infrastructure.</li> </ul>
	<ul> <li>Include what is known of Swift Parrot movements and habitat use into planning for wind and solar farm placement, design, and operation.</li> </ul>
Manage over-abundant native species	<ul> <li>Develop and apply management techniques to maintain appropriate abundance and diversity of native bird species where required.</li> </ul>
Mitigate the risks posed by pathogens and disease	<ul> <li>Identify and manage the risks associated with pathogens and/or diseases, considering management options to limit exposure, infection, and impact of infection.</li> </ul>
Permanent protection *	<ul> <li>Investigate incentives, voluntary agreements, covenants, and other permanent protection measures to protect and restore non-breeding habitat in Victoria.</li> </ul>
Protect key habitat	<ul> <li>Identify opportunities to manage threats of land use change and development, including the potential for species-specific planning provisions or guidance, programs to encourage protection and management of remaining habitat areas.</li> </ul>
	<ul> <li>Ensure that Swift Parrot distribution data and ecological information are available and considered in planning for developments, land use changes and utilities maintenance.</li> </ul>
	• Ensure that incremental losses of isolated large trees and small habitat patches are included in consideration of potential losses.
Research	Increase understanding of genetic risks and management options.
	<ul> <li>Improve understanding of the Swift Parrot's movements and/or dispersal and habitat requirements.</li> </ul>
	<ul> <li>Develop tracking technology that can identify migratory routes and important foraging and roosting areas.</li> </ul>
	<ul> <li>Increase understanding of how climate change is impacting flowering and lerp availability patterns in both space and time, to inform habitat protection and restoration and/or revegetation works.</li> </ul>
	<ul> <li>Increase understanding of the impacts of European Honeybee competition on foraging Swift Parrots in the Victorian non-breeding range and identify potential management options.</li> </ul>
	<ul> <li>Continue to build understanding of disease risks for the Swift Parrot, and management options.</li> </ul>
Restoration and/or revegetation *	<ul> <li>Undertake restoration and/or revegetation to increase habitat suitability and/or create new habitat areas, including ecological thinning at priority locations to improve resource availability.</li> </ul>
	<ul> <li>To support recovery, decision-support tools indicate a significant increase in the scale of these activities is required.</li> </ul>
	<ul> <li>Investigate opportunities to include plant species which will produce nectar quickly in restored habitat to overcome localised food shortages more rapidly while preferred longer-lived flowering gums mature.</li> </ul>
	<ul> <li>Consider the expected impacts of climate change when identifying priority areas, and plant species, for restoration and/or revegetation projects.</li> </ul>

Action	Description
Survey and monitoring	<ul> <li>Monitor foraging flocks at known sites and other suitable locations to assess distribution, habitat condition and resource availability and use.</li> </ul>
	Monitor the impact of threats to inform management interventions.

<sup>\*</sup>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
Apply decision support tools for population management	<ul> <li>In 2023 a Specific Needs Assessment and associated Feasibility Check workshop were undertaken to inform population and threat management decisions. The process identified the urgent need to establish an ex-situ conservation program to compliment threat management actions in the wild.</li> </ul>
Avoid and/or mitigate impacts associated with fire management	<ul> <li>Impacts associated with fire management activities have been managed through a values checking and risk mitigation process for planned burning and roading activities.</li> </ul>
	<ul> <li>Burning practices in Box-Ironbark Forest types is modified to protect foraging resources.</li> </ul>
Community engagement and awareness	<ul> <li>Community involvement has been encouraged, though stewardship and conservation programs (e.g., Land for Wildlife, Friends groups, birdwatching groups).</li> </ul>
	<ul> <li>Community groups and volunteers have been directly engaged in recovery activities.</li> </ul>
Conservation management planning	<ul> <li>Included the protection, enhancement, and restoration of Swift Parrot habitat into relevant Regional Catchment Strategies or their subordinate strategies via Biodiversity Action Plans.</li> </ul>
	• Identified priority Swift Parrot sites and specific management requirements.
Develop, update, and	The Swift Parrot has a current species-specific prescription in the Code:
apply forestry protections	<ul> <li>In the vicinity of Swift Parrot flocks in the Midlands Forest Management Area (FMA) and Portland-Horsham FMA:</li> </ul>
	Avoid disturbance of Swift Parrot flocks by postponing timber harvesting operations that may affect them in their vicinity.
	– For any Resident population in the North East FMAs:
	> Apply a management area for resident populations.
	Conduct a site inspection and detailed planning in consultation with the Department to ensure the species is adequately protected during timber harvesting operations or prescribed burning activities.
	<ul> <li>The risk of forestry operations was assessed for the Swift Parrot in 2020 under the Victorian Government Threatened Species and Communities Risk Assessment. Additional permanent protections were not found to be required.</li> </ul>
Establish/maintain Recovery Team	A National Recovery Team has been established and maintained to facilitate collaborative management for the Swift Parrot.

Past action	Description
Establish Management Areas or Special Protection Zones	<ul> <li>Identified and mapped high priority management areas and confirmed locations of high value habitat in 2013-2014.</li> </ul>
Permanent protection	<ul> <li>High-priority habitat, as indicated by the Swift Parrot Habitat Distribution Model has been permanently protected on private land in North Central, Goulburn Broken and North East catchments</li> </ul>
Research	<ul> <li>The extent of habitat of the Swift Parrot has been identified and mapped to identify important sites that are used regularly, between 2013 and 2016.</li> </ul>
	<ul> <li>Research to understand the movement patterns of Swift Parrots throughout their winter migration, particularly where large concentrations may occur on arrival and departure, was undertaken between 2013 and 2016.</li> </ul>
Restoration and/or revegetation	<ul> <li>Planned targeted revegetation and regeneration projects to improve remnant vegetation at selected sites used by Swift Parrots, to provide more suitable habitat (winter-flowering eucalypts), e.g., Tullamarine airport from 2013 to 2016.</li> </ul>
	<ul> <li>Where needed, forest structure has been modified to promote development of large old trees, between 2013 and 2016.</li> </ul>
Survey and monitoring	<ul> <li>Periodic monitoring of Swift Parrot use of known foraging sites has been undertaken throughout the last 10 years. Monitoring collected information on presence/absence and abundance of Swift Parrots.</li> </ul>
	<ul> <li>A long-term and ongoing annual community Swift Parrot Monitoring Day in North East Victoria involves citizen scientists in the Swift Parrot's conservation effort and provides information on presence/absence and abundance.</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: NatureKit
- Biodiversity Knowledge Framework

#### **Further Information**

- Swift Parrot Species Forecast Report
- Swift Parrot Conservation Advice
- Commonwealth Species Profile and Threats database
- Threatened Species and Communities Risk Assessment
- Code of Practice for Timber Production 2014
- 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: <u>Action</u> statements (environment.vic.gov.au)

To identify the relevant Traditional Owners, use the <u>Aboriginal Cultural Heritage Register and Information System</u> (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 <u>Protecting Victoria's Environment 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 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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