

Action statement

Flora & Fauna Guarantee Act 1988

Orange-bellied Parrot (*Neophema chrysogaster*)

Taxon ID: 10305

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



Orange-bellied Parrot. Image by Sarah Agterhuis.



Orange-bellied Parrot Victorian Biodiversity Atlas (VBA) records since 1970. See [NatureKit](#) for an interactive map. The Orange-bellied Parrot also occurs outside of Victoria.

Conservation Status

Critically Endangered

Listing criteria: 3.1.4 of the Flora and Fauna Guarantee Regulations 2020.

This means that:

- the Orange-bellied Parrot's estimated total number of mature individuals is extremely low.

Corresponding International Union for the Conservation of Nature (IUCN) criteria: D.

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 [Orange-bellied Parrot Species Forecast Report](#).

Threats

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

Threat	Description
Population dynamics	
Loss of genetic diversity	<ul style="list-style-type: none"> Genetic diversity in the population is low with a loss of adaptive potential to environmental change and climate change impacts.
Low survival in first year	<ul style="list-style-type: none"> Survival in the first year of life is very low, resulting in reduced recruitment.
Small population size	<ul style="list-style-type: none"> Reduced resilience is evident due to low flock numbers. Known flock sizes in Victoria have decreased from 40+ birds in the 1980s to 3—7 at present.
Habitat loss, degradation or modification	
Habitat loss	<ul style="list-style-type: none"> Vegetation change can occur because of changes in hydrological regimes through flow management, including flows from stormwater discharge.
Land use changes/intensification	<ul style="list-style-type: none"> Saltmarsh removal and vegetation change through changing land use, including agricultural intensification, has resulted in habitat degradation or loss in the non-breeding range.
Vegetation clearing or damage	<ul style="list-style-type: none"> Habitat loss or degradation in the non-breeding range is an ongoing threat, resulting in a loss of foraging and roosting resources, or loss of amenity of some habitat areas due to changes in structure or landscape context. Habitat damage may occur through birdwatching activities in some areas of known habitat.
Climate change	
Extreme weather	<ul style="list-style-type: none"> Increases in storms, storm surges and flooding can result in habitat degradation and may also impact survival during migration or over winter.
Increased frequency and/or length of droughts	<ul style="list-style-type: none"> The millennium drought resulted in a temporary decrease in non-breeding habitat extent in Victoria. Long periods of drought are likely to become more common with climate change.
Sea-level rise	<ul style="list-style-type: none"> Sea level rise combined with coastal development preventing the landward migration of saltmarsh habitats, results in a loss of habitat.
Human disturbance	
Changes to salinity	<ul style="list-style-type: none"> Inappropriate stormwater discharge from housing estates into saltmarsh systems can decrease salinity leading to habitat damage (i.e., changes to saltmarsh species composition, impacting extent of preferred food plants and habitat structure).
Infrastructure	<ul style="list-style-type: none"> Direct collision with onshore wind turbines may result in mortality, and it is possible that wind turbines may affect movement patterns. There is anecdotal evidence that migrating birds may be attracted to lighting at night and suffer collision mortality (anecdotal and unverified historical reports of unidentified green parrots hitting squid fishing boats on Bass Strait).

Threat	Description
Pathogens and disease	
Disease (other)	<ul style="list-style-type: none"> Genetic decline in the small population has reduced diversity in immune function genes, placing the species at increased risk of population level impacts from a range of diseases.
Introduced species	
Feral cats	<ul style="list-style-type: none"> Predation by the Cat (<i>Felis catus</i>) is assumed and supported by indirect evidence (i.e., recovery of carcasses that are likely to have been killed by a feral cat/s).
Foxes	<ul style="list-style-type: none"> Predation by the Fox (<i>Vulpes vulpes</i>) is assumed.
Introduced plants	<ul style="list-style-type: none"> Introduced plants change the structure and composition of foraging habitats, degrading habitat, and may reduce food availability.

The above threats occur in the non-breeding range and migration route of Orange-bellied 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:

- The species is limited to a single, small breeding population, which places it at greater risk of significant impact from localised stochastic events.
- Inappropriate fire regimes in the limited breeding range are considered a major threat, as the species prefers younger time-since-fire foraging habitat in the breeding range.
- There is some anecdotal evidence that heatwaves during the breeding season may increase nestling mortality, and this may become more common with climate change and impact recruitment.
- Competition for food and nesting hollows.
- Predation of breeding adults, eggs, and nestlings.

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 selected objectives aim to frame priority activities in Victoria; other objectives are relevant to management of the species in its breeding range.

The key objectives of this action statement are:

- Mitigate threats to populations and habitat to increase resilience, increase genetic fitness and support an increase in population size.
- Increase knowledge of biology, ecology, distribution, demography, emerging threats, and conservation requirements.
- Support community participation and improve awareness of the Orange-bellied Parrot and conservation of coastal environments.

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
Community engagement and awareness	<ul style="list-style-type: none"> Engage landholders to raise awareness of grazing regimes that support the conservation of the Orange-bellied Parrot. Engage birdwatchers to ensure disturbance is prevented in areas of known habitat. Maintain community participation and awareness in stewardship of saltmarsh habitats on private land, and involvement in surveys and monitoring.
Control introduced plants and animals*	<ul style="list-style-type: none"> Implement effective management and control of foxes and feral cats at key saltmarsh sites. Develop and implement an effective weed control strategy within the species habitat, that considers the roles that introduced plants can play in providing shelter and food sources for the Orange-bellied Parrot.
Habitat management	<ul style="list-style-type: none"> Promote and support saltmarsh creation at sites where climate change modelling shows successful saltmarsh creation or migration is likely. This may include ensuring land where Orange-bellied Parrot migration is predicted and is protected from incompatible land uses.
Identify and protect key habitat	<ul style="list-style-type: none"> Promote saltmarsh retention through land stewardship programs, including sensitive use of grazing and other agricultural practices where saltmarsh occurs on or adjacent to agricultural land. Introduced plant control will be informed by population surveys and monitoring, habitat condition assessments, and considers the roles that introduced plants can play in providing shelter and food sources for the Orange-bellied Parrot.
Maintain captive breeding program	<ul style="list-style-type: none"> Continue the nationally coordinated captive breeding program for insurance against extinction, to supplement the wild population and improve recovery prospects. Maintain genetic health of the captive population.
Manage built infrastructure	<ul style="list-style-type: none"> Include what is known of Orange-bellied Parrot movements into planning for onshore wind farm placement, design, and operation. Consider Orange-bellied Parrot requirements in the placement and design of development areas near saltmarshes. Include planning for appropriate buffers around saltmarshes to limit human disturbance, and stormwater management to limit the off-site impacts of development.
Research	<ul style="list-style-type: none"> Explore options to improve genetic diversity, particularly for immune response genes. Continue to build understanding of disease risks for the species and management options. Priority diseases of concern identified in 2022 are Psittacine Beak and Feather Disease, Mycobacteriosis, and Chlamydiosis. Develop tracking technology that can identify migratory routes.

Action	Description
	<ul style="list-style-type: none"> Explore the causes of low juvenile survival, and management options to improve juvenile survival. Continue to expand climate change modelling to understand likely impacts to habitat distribution and opportunities to offset unavoidable saltmarsh loss with facilitation of saltmarsh creation in other areas.
Restore hydrological regime	<ul style="list-style-type: none"> Restore appropriate hydrological regimes to promote saltmarsh restoration where degradation has occurred through human-induced changes to hydrology.
Survey and monitoring	<ul style="list-style-type: none"> Continue to refine survey and tracking techniques to increase detection probability and employ these approaches to monitor the population annually in Victoria over autumn and winter. Assess habitat condition and threats at sites where Orange-bellied Parrots are known to occur, to identify management priorities. Assess changes in habitat extent by updating habitat distribution modelling every five years.

**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
Captive breeding program	<ul style="list-style-type: none"> The captive breeding program is managed as a single population to maximise genetic health.
Disease Risk Assessment	<ul style="list-style-type: none"> Disease Risk Assessment for the National Recovery Program in 2022 led by Zoos Victoria.
Genetic studies	<ul style="list-style-type: none"> Genetic studies led by the University of Sydney have documented the decline in genetic diversity of the species due to small population size, and are working to identify genetic rescue options.
Habitat condition monitoring	<ul style="list-style-type: none"> In 2014, the Arthur Rylah Institute developed a rigorous and time-efficient method for monitoring habitat condition for Orange-bellied Parrots.
Habitat extent modelling	<ul style="list-style-type: none"> In 2016, the Arthur Rylah Institute modelled habitat extent across Victoria and South Australia, in 5-year intervals from 1985 to 2015.
Introduced species management	<ul style="list-style-type: none"> Through various funding mechanisms, coastal CMAs in Victoria, and Parks Victoria, have delivered fox, and in some cases cat, control programs at priority locations.
Mainland release project	<ul style="list-style-type: none"> Between 2017 and 2023, the Victorian Government, Zoos Victoria, Moonlit Sanctuary (2020-2022), and Corangamite Catchment Management Authority (CMA) (2020-2023) partnered to release captive-bred birds into suitable mainland habitats in Victoria.
Population Viability Assessment	<ul style="list-style-type: none"> The Australian National University undertook a Population Viability Assessment in partnership with several Victorian organisations.

Past action	Description
Rapid Survey Trial	<ul style="list-style-type: none"> In 2022, the Victorian Government, Zoos Victoria, the Australian National University and BirdLife Australia partnered to trial a new rapid survey technique for the species.
Recovery Plan written	<ul style="list-style-type: none"> A National Recovery Plan was published in 2016, and a revised plan is in preparation at the time of Action Statement preparation.
Recovery Team maintained	<ul style="list-style-type: none"> A National Recovery Team has been in place for this species since 1983.
Review monitoring methods	<ul style="list-style-type: none"> In 2016, BirdLife Australia reviewed available methods for monitoring the Victorian population.
Saltmarsh, sea level rise research	<ul style="list-style-type: none"> Corangamite CMA and Deakin University have been undertaking studies of key habitat areas to understand how saltmarshes in the region will respond to climate change.
Saltmarsh stewardship	<ul style="list-style-type: none"> Land stewardship programs to protect, enhance, and restore degraded saltmarshes delivered through coastal CMAs.
Shared database	<ul style="list-style-type: none"> The Arthur Rylah Institute worked with partners across the three range states to design a shared database for Orange-bellied Parrot releases, sightings and banding.
Specific Needs Assessment	<ul style="list-style-type: none"> The National Recovery Team undertook a Specific Needs Assessment in 2019.
Surveys	<ul style="list-style-type: none"> Annual surveys completed throughout the autumn and winter period.
Tracking and technology	<ul style="list-style-type: none"> Zoos Victoria is currently leading the development and trialling of tracking technology

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

- [Orange-bellied Parrot Species Forecast Report](#)
- [Threatened Species Assessment report – Orange-bellied Parrot \(*Neophema chrysogaster*\)](#)
- [Commonwealth Threat Abatement Plans](#)
- [Commonwealth Species Profile and Threats database](#)
- [Victoria's changing climate – understanding the impacts of climate change in Victoria](#)
- [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 / owner permissions, options and incentives for private land conservation, and engagement with Traditional Owners and public land managers here: [Action statements \(environment.vic.gov.au\)](http://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](#).

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 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 [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 actions, public land management, research activities and reporting, we encourage all participants in the delivery of on-ground actions to submit species records, including for weeds and introduced animals and observations 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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