



Tasmanian Orchid Conservation and Research Program

STRATEGIC PLAN 2022-2027



Plan justification

This plan sets the direction and strategic actions for the Tasmanian Orchid Conservation and Research Program up to 2026. It is a working document which will continue to evolve as the Program develops. It explains the Program's purpose and outlines the first 5 years of a long-term strategy for the *ex situ* conservation of Tasmania's threatened orchids. It has been intentionally kept brief to ensure it can be quickly read and updated as needs demand.

This plan was prepared by the Landscape Recovery Foundation and Royal Tasmanian Botanical Gardens and will be reviewed after 12 months of implementation.

Background: The Tasmanian Orchid Conservation and Research Program (TOCRP) aims to improve the conservation status of Tasmanian threatened orchids through the implementation of *ex situ* recovery actions identified in the Federal Tasmanian Threatened Orchid Flora Recovery Plan (TTOFRP). The TTOFRP identifies important *in situ* and *ex situ* conservation activities as well as mycorrhizal, pollinator and taxonomic research for 72 species occurring in Tasmania of which 36 are EPBCA listed. The TOCRP is hosted at the Tasmanian Seed Conservation Centre (TSCC) at the Royal Tasmanian Botanical Gardens (RTBG). It is coordinated by the Landscape Recovery Foundation (LRF).

Our Purpose is to implement the *ex situ* and *in situ* recovery actions in the TTOFRP.

Our priority species are those listed for *ex situ* recovery actions in the TTOFRP. Priority species for the Year 1 are presented in Appendix 1 and will be reviewed by program partners annually.

Program partners

The Royal Tasmanian Botanical Gardens

The RTBG is Australia’s cool climate garden, with a number of unique collections including Australia’s only Subantarctic Plant House. The Vision of the RTBG is to create and maintain an exceptional garden that enriches Tasmania’s social and cultural life, educates the

community about the importance of plants and contributes to the conservation of the flora of Tasmania and the world. The TSCC is the RTBG’s key contribution to plant conservation.

The Landscape Recovery Foundation

The LRF is a not-for-profit foundation set up to protect and restore biodiversity and ecological processes on a landscape scale.

The LRF is a group of experienced and passionate environmental practitioners with a wealth of experience in ecological systems, threatened species management and community engagement and a strong desire to make a difference.

Strategies & Actions

To achieve our vision and purpose, we will focus on the following strategies:

1. Ensure that the Tasmanian orchid flora is represented in the Tasmanian Seed Conservation Centre’s collections
2. Educate the community about the importance of the Tasmanian orchid flora and its conservation.
3. Develop an orchid translocation program with goals to downlist species most at risk of extinction.

The actions that will be undertaken to implement these strategies are outlined in Table 1.

Table 1. Actions to implement this plan.

Strategy	Action	Completion date
1. Tasmanian orchid flora in the Tasmanian Seed Conservation Centre	1.1 Undertake seed and mycorrhizal collections for priority species including propagation for the establishment of seed orchards when required to achieve conservation collections*.	On-going
	1.2 Development of a data collection methodology for submission and use of orchid seed with the TSCC.	December 2021
	1.3 Seed collection and seed orcharding plan, including retirement planning for seed orchards once conservation collections have been achieved.	On-going

Strategy	Action	Completion date
	1.4 List of retirement locations for orchid plants no longer needed for seed orchards approved by DPIPWE's Threatened Species Section.	December 2021
	1.5 Investigate & resource purchase of - 80°C freezer.	December 2024
2. Community education	2.1 Propagate threatened orchid for display and communication purposes.	On-going
	2.2 Develop and implement a communications plan for ethical photography in collaboration with DPIPWE's Threatened Species Section, Threatened Plants Tasmania and EcoTas.	September 2022
3. Develop an orchid translocation program	3.1 Develop and resource an orchid translocation program.	September 2024
	3.2 Develop a Translocation Plan for the first orchid translocation.	September 2025
	3.3 Undertake the first orchid translocation including site selection using pollinator and mycorrhizal baiting using flowers and seed produced by plants propagated at the RTBG.	September 2026

* a *conservation collection* contains at least 10,000 seeds, ideally from 40-50 individuals. For some critically endangered orchids with small population sizes, it will not be possible to achieve the ideal diversity for conservation collections. For these species, efforts including seed orcharding will be made to collect the maximum possible diversity without impacting on *in situ* survival. Production of flowers and seed for pollinator and mycorrhizal baiting to identify translocation sites is likely to require more than 10,000 seeds. Specific seed numbers for target species will be developed in the seed collection and orcharding plan (Action 1.3).

Our 5-year Targets

1. Ensure that the Tasmanian orchid flora is represented in the Tasmanian Seed Conservation Centre
 - a. The submission of conservation collections of 5 orchid species to the TSCC each year (at least 2 new species and 3 new provenances).
 2. Educate the community about the importance of the Tasmanian orchid flora and its conservation, with a specific focus on managing over visitation of highly sensitive sites.
 - a. Develop a community engagement program focused
 3. Develop an orchid reintroduction program with goals to downlist species most at risk of extinction.
 - a. Establish and resource an orchid reintroduction program by 2024 for at a least two species.
- on ethical photography for sensitive orchid sites with *ex situ* and *in situ* communications by Spring 2023.

Resourcing and investment

A key funder of the Tasmanian Orchid Conservation and Research Program is the Australian Orchid Foundation who have supported the program through their grant process since 2011. Other shorter-term grants have been received from the Australian Government's Department of Agriculture, Water and Environment, the Hermon Slate Foundation, the Mazda Foundation and the

three Tasmanian NRM regions. The program also receives support from philanthropic funders including Westland's Nursery and Natural Area Consulting.

The Landscape Recovery Foundation will continue to leverage funding to implement this plan from grant and philanthropic sources.

Appendices

Appendix 1. Priority species for Year 1, their EBPCA listing, rationale for selection and their overall program priority.

Species	EBPCA listing	Rationale for section	Project Priority
<i>Prasophyllum taphanx</i>	CR	<i>Ex situ</i> recovery and translocation actions priority in Recovery Plan. Threatened by inappropriate slashing. Species only known from 2 plants, which remained dormant for several years. One flowered in 2020 but was damaged before collection was possible. No seed or fungi stored in the TSCC.	Very High
<i>Pterostylis commutata</i>	CR	<i>Ex situ</i> recovery and translocation actions priority in Recovery Plan. Threatened by inappropriate fire regimes: Ecological burn planned for Autumn 2022. No seed or fungi stored in the TSCC.	Very High
<i>Prasophyllum favonium</i>		<i>Ex situ</i> recovery actions a priority in Recovery Plan. Threatened by inappropriate fire regimes. Species flowers sporadically. A relatively large new site located in 2021. No seed or fungi stored in the TSCC.	Very High
<i>Prasophyllum limnetes</i>	CR	<i>Ex situ</i> recovery actions a priority in Recovery Plan. Threatened by fire regimes: ecological burn undertaken in autumn 2021 due to falling numbers. Will collect if responds well to fire. No seed or fungi stored in the TSCC.	Very High
<i>Pterostylis wapstrarum</i>	CR	<i>Ex situ</i> recovery actions a priority in Recovery Plan. Threatened by fire and grazing regimes. No seed or fungi stored in the TSCC.	Very High
<i>Prasophyllum olidum</i>	CR	<i>Ex situ</i> recovery and translocation actions priority in Recovery Plan. Threatened by inappropriate slashing & fire regimes. On-going interaction with land manager required for appropriate slashing to be maintained. Seed (limited number of parents) and no fungi stored in the TSCC.	Very High
<i>Prasophyllum milfordense</i>	CR	<i>Ex situ</i> recovery and translocation actions priority in Recovery Plan. Threatened by inappropriate fire regimes: landholder has recently changed to slashing in place of ecological burning. Site impacted by proposed development. Seed (limited number of parents) and no fungi stored in the TSCC.	Very High
<i>Prasophyllum tubridgense</i>	EN	<i>Ex situ</i> recovery and translocation actions priority in Recovery Plan. Threatened by inappropriate fire regimes: ecological burn planned for Autumn 2022. Ideally to collect prior to burn. Seed (limited number of parents) and no fungi stored in the TSCC.	Very High
<i>Diuris lanceolata</i>	EN	<i>Ex situ</i> recovery actions priority in Recovery Plan. Threatened by inappropriate fire regimes. Seed (limited number of parents) and fungi stored in the TSCC.	High

Species	EBPCA listing	Rationale for section	Project Priority
<i>Prasophyllum amoenum</i>	EN	<i>Ex situ</i> recovery actions priority in Recovery Plan. Threatened by inappropriate fire regimes & Climate Change. No seed or fungi stored in the TSCC. Seed (limited number of parents) and no fungi stored in the TSCC.	High
<i>Prasophyllum crebriflorum</i>	EN	<i>Ex situ</i> recovery actions priority in Recovery Plan. Threatened by inappropriate fire regimes & impacted by recent wildfires in Central Highlands. Fungi and seed in the TSCC (limited number of parents).	High
<i>Pterostylis pratensis</i>	VU	<i>Ex situ</i> recovery actions a priority in Recovery Plan. Impacted by recent wildfires in Central Highlands. Fungi and seed in the TSCC (limited number of parents).	High
<i>Pterostylis rubenachii</i>	EN	<i>Ex situ</i> recovery actions a priority in Recovery Plan. Threatened by inappropriate fire regimes. Fungi and seed in the TSCC (limited number of parents).	High
<i>Caladenia anthracina</i>	CR	<i>Ex situ</i> recovery and translocation actions priority in Recovery Plan. Threatened by inappropriate slashing & fire regimes. On-going interaction with land manager required for appropriate slashing to be maintained. Fungi and seed in the TSCC (limited number of parents).	Medium
<i>Caladenia saggicola</i>	CR	Translocation a priority in Recovery Plan. Threatened by inappropriate fire regimes: landholder has recently changed to slashing in place of ecological burning. Site impacted by proposed development. Seed in the TSCC (limited number of parents), but no compatible fungi in the TSCC.	Medium
<i>Caladenia tonellii</i>	CR	Translocation a priority in in Recovery Plan. Threatened by inappropriate fire regimes. Fungi and seed in the TSCC (limited number of parents).	Medium
<i>Prasophyllum incorrectum</i>	CR	<i>Ex situ</i> recovery and translocation actions a priority in Recovery Plan. Threatened by inappropriate slashing & fire regimes. On-going interaction with land manager required for appropriate slashing to be maintained. Fungi and seed in the TSCC (limited number of parents).	Medium
<i>Prasophyllum pulchellum</i>	CR	<i>Ex situ</i> recovery actions a priority in Recovery Plan. Threatened by inappropriate fire regimes. Fungi and seed in the TSCC (limited number of parents).	Medium
<i>Pterostylis ziegelerei</i>	VU	<i>Ex situ</i> recovery actions a priority in Recovery Plan. Threatened by inappropriate slashing & fire regimes. Fungi and seed in the TSCC (limited number of parents).	Low