

Action Statement

Flora and Fauna Guarantee Act 1988

No. 154

Maroon Leek-orchid

Prasophyllum frenchii

Description and distribution

The Maroon Leek-orchid (*Prasophyllum frenchii*) is endemic to Victoria. It is widespread across south-eastern Victoria between Clyde and Mallacoota. Existing records and current understanding of its taxonomy indicate that *P. frenchii* was formerly more widespread south-east of Melbourne in the Officer and Bairnsdale areas to Mallacoota in far East Gippsland. Many records attributed to this species are incorrect determinations of similar taxa. Approximately 250 - 750 plants known in the wild, in five main populations. The Maroon Leek-orchid is likely to have formerly numbered many thousands of plants in grasslands, grassy woodlands and heathlands in Gippsland and south-eastern Victoria but is now likely to be extinct east of Wilsons Promontory. The Maroon Leek-orchid is reserved at Wilsons Promontory National Park (WPNP).

Habitat

The Maroon Leek-orchid occurs in grassland or grassy woodland. Some sites were managed by frequent fire up until the late 1970s but are now generally degraded. Soils are sandy, or black clay loams, generally damp but well drained although some sites are seasonally waterlogged. Critical habitat has not been determined but likely to require open conditions to promote flowering and recruitment, and adequate soil moisture.

Conservation status

National conservation status

The Maroon Leek-orchid has been listed as endangered under the Commonwealth **Environment Protection and Biodiversity Conservation Act 1999**.



Maroon Leek-orchid *Prasophyllum frenchii*
(Photo: John Eichler)



Distribution in Victoria (source: DSE 2004)
(open grids - former range, closed grids - present range)

An assessment using the IUCN Criteria has been undertaken and the Maroon Leek-orchid has been determined to be endangered.

Victorian conservation status

The Maroon Leek-orchid has been as threatened under the **Flora and Fauna Guarantee Act 1988**.

The Maroon Leek-orchid is considered endangered in Victoria (DSE 2003).

Decline and threats

Current and potential threats and estimated risk

Current threats

Weed invasion

High - Clyde (Watsonia, Blackberry), High - Pakenham

Grazing

Extremely high at WPNP -kangaroos, emus, wombats, hog deer and rabbits are abundant; Moderate at Golden Beach - kangaroos and rabbits; Low at other sites.

Inappropriate fire regimes

High at WPNP - site is long unburnt and habitat is severely degraded; Low at Golden Beach, Parkside Aerodrome - sites are regularly burnt; Moderate at Clyde - burning is irregular and site currently requires fire, Moderate at Pakenham - site is long unburnt

Site disturbance

Generally low at present.

Potential threats

Illegal collection

Low - no evidence of collection in the past.

Herbicide spraying and site disturbance

High at Clyde and Pakenham - Herbicides have been used in the past along the rail line; damage from heavy machinery and vehicles during works is possible. Low at other sites.

Woody shrub invasion

Low at Golden Beach - invasion of coastal shrubs in the absence of fire or grazing.

Other issues

- *P. frenchii* has not been seen at Wilsons Promontory National Park in recent years. The site is severely degraded and urgent habitat management is required to control overgrazing and restore an appropriate fire regime.
- A negotiated management agreement will be put in place between DSE and Parkside Aerodrome Committee to ensure that- timing of

fuel reduction measures is in accordance with flowering and fruit development, and to obtain baseline population information.

- An agreement will be negotiated by DSE with VicTrack, leasees and contractors to develop a set of agreed environmental works guidelines to manage accidental damage arising from major projects or ongoing maintenance

Existing conservation measures

- Searches along the Melbourne to Bairnsdale rail reserve (Paget 1998; Bairnsdale and District Field Naturalists Club)
- Monitoring at Clyde by *Holistic Ecology* in 1998
- Ecological burn at Clyde in 1999
- Negotiations initiated in relation to site management with Parkside Airfield Committee
- Ecological burning conducted regularly at Golden Beach
- All sites were visited during recovery plan preparation.

Conservation objectives

Long term objective

That the Maroon Leek-orchid can survive, flourish and retain its potential for evolutionary development in the wild.

Objectives of this Action Statement

1. Improve knowledge of population sizes, trends and habitat requirements.
2. Protect sites and manage habitat.
3. Maintain and/or increase existing population sizes

Overall approach

Risk management will include negotiated agreements with management authorities and landowners to protect populations from grazing and accidental damage where required, and implement appropriate fire regimes at a sites to, promote flowering and recruitment, particularly in parks and reserves. Baseline information is urgently required. Seed will be collected and tested for viability and stored for use if required. Recovery will be jointly managed by NRE, Parks Victoria and Parkside Airfield Committee. Involvement from volunteers will be encouraged.

Intended management actions

The intended management actions listed below are further elaborated in Actions for Biodiversity Conservation database. Detailed information about the actions and locations, including priorities, is held in this system and will be provided annually to land managers and other authorities.

1. Determine current conservation status, including clarifying taxonomy and acquiring baseline population data.

Responsibility: Biodiversity & Natural Resources Division, (Port Phillip and Gippsland Regions) Centre for Plant Biodiversity Research

2. Measure population trends and responses against recovery actions. Conduct annual censusing of populations, collate, analyse and report on census data and re-prioritise and adjust recovery actions and/or threat management

Responsibility: Biodiversity & Natural Resources Division, (Port Phillip and Gippsland Regions)

3. Determine habitat requirements of key populations. Conduct surveys, identify ecological correlates of populations and prepare habitat descriptions.

Responsibility: Biodiversity & Natural Resources Division, (Port Phillip and Gippsland Regions)

4. Provide information and advice, including maps, regarding the location and management of Maroon Leek-orchid sites to landholders, land managers and other authorities, especially Catchment Management Authorities and local government authorities.

Responsibility: Biodiversity & Natural Resources Division, (Port Phillip and Gippsland Regions)

5. Incorporate actions to protect, enhance and restore Maroon Leek-orchid habitat into relevant Regional Catchment Strategies or their subordinate strategies via Biodiversity Action Plans. Implement these actions, according to priority, as resources become available, in conjunction with other agencies, community groups and landholders.

Responsibility: Port Phillip Catchment and Land Protection Board, West Gippsland Catchment Management Authority

6. Incorporate information regarding the location and management of Maroon Leek-orchid sites into local planning schemes, including environmental significance overlays, and apply the Victorian Planning Provisions so as to protect these sites.

Responsibility: local government authorities

7. Manage risks to populations. Identify and implement strategies to control threats and identify disturbance regimes to promote regeneration and recruitment for key populations and their habitat on public and private land.,

Responsibility: Biodiversity & Natural Resources Division, (Port Phillip and Gippsland Regions), Parks Victoria, Parkside Airfield Committee, Shire of Wellington

8. Promote in-situ recruitment by preparing habitat for seedling recruitment and re-stocking populations with seed.

Responsibility: Biodiversity & Natural Resources Division, (Port Phillip and Gippsland Regions)

9. Undertake or encourage and support research, including the description of life history and evaluation of natural pollination levels and causes of pollinator limitation.

Responsibility: Biodiversity & Natural Resources Division

10. Increase populations ex-situ. Hand pollinate plants, collect and store seed and determine seed viability. Collect and store mycorrhizal fungi . Establish and maintain cultivated populations and record such collections in a database of threatened orchid taxa in cultivation.

Responsibility: Biodiversity & Natural Resources Division, Royal Botanic Gardens

11. Develop and implement materials for land manager, landholder and community information, including technical information on in-situ recovery techniques.

Responsibility: Biodiversity & Natural Resources Division

12. Involve community groups in recovery actions where appropriate and provide support under the Botanic Guardians scheme.

Responsibility: Biodiversity & Natural Resources Division, (Port Phillip and Gippsland Regions)

References

- Backhouse, G. & Jeanes, J. (1995) *The Orchids of Victoria*. Miegunyah Press Melbourne.
- DSE (2003) *Advisory List of Rare or Threatened Plants in Victoria - 2003*. Department of Sustainability and Environment: East Melbourne. (available on the DSE web site)
- DSE (2004) *Flora Information System* (electronic flora database). Department of Sustainability and Environment: Melbourne.

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Further information can be obtained from
Department of Sustainability and Environment
Customer Service Centre on 136 186.

Flora and Fauna Guarantee Action Statements are
available from the Department of Sustainability and
Environment website: <http://www.dse.vic.gov.au>

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