

# Action Statement

Flora and Fauna Guarantee Act 1988

No. 138

## Swamp Leek-orchid *Prasophyllum hygrophilum*

Note: *Prasophyllum hygrophilum* was recently known as *Prasophyllum* sp. (Nagambie) and *Prasophyllum* sp. aff. *pyriforme* D.

### Distribution

The Swamp Leek-orchid *Prasophyllum hygrophilum* is endemic to Victoria, occurring in the Nagambie and possibly Murchison areas within the Victorian Riverina Bioregion, and the Bendigo area within the Victorian Goldfields Bioregion. *Prasophyllum hygrophilum* is currently known only from three populations, however, populations were likely to have been more widespread prior to habitat loss. There are between 1 500 and 3 000 plants distributed within a number of sub-populations at Reedy Lake near Nagambie; fewer than 30 plants in one population near Bendigo; there is also an unconfirmed population thought to occur at Murchison. Former abundance is unknown but likely to have been more widespread throughout River Red Gum - Yellow Box forest and Grey Box grassy woodlands throughout central Victoria but confined to poorly drained clay soils. The Swamp Leek-orchid is reserved at Reedy Lake Wildlife Reserve, which is managed by Parks Victoria (Central Region).

### Habitat

The Swamp Leek-orchid occurs in *Eucalyptus camaldulensis* - *Eucalyptus microcarpa* grassy woodland on seasonally inundated brown clay gilgai soils. Critical habitat has not been determined but appears to be confined to raised areas with ample soil moisture during its emergent period.



Swamp Leek-orchid *Prasophyllum hygrophilum*  
(Photo: John Eichler)



Distribution in Victoria (DSE 2004)

## Conservation status

### National conservation status

The Swamp Leek-orchid has not been listed under the Commonwealth **Environment Protection and Biodiversity Conservation Act 1999**.

An assessment using the IUCN Criteria has been undertaken. The Swamp Leek-orchid was assessed as Critically Endangered.

### Victorian conservation status

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

The Swamp Leek-orchid is classified as 'Endangered' in Victoria (DSE 2003).

## Decline and threats

### Current threats and estimated risk

#### Weed invasion

Low - Reedy Lake; Moderate - private property at Bendigo; Unknown - Murchison.

#### Grazing

Moderate - Reedy Lake - kangaroos are common; Unknown - Bendigo and Murchison.

#### Inappropriate fire regimes

Likely to be low - sites are long unburnt, fire risk is low.

#### Site disturbance

High at all sites - Reedy Lake plants are vulnerable to damage from off road vehicles; Bendigo plants are vulnerable to habitat clearing and damage from farm machinery; Murchison plants may be vulnerable to golf course maintenance activities.

### Potential threats and estimated risk

#### Illegal collection

Low - no evidence of collection in the past.

### Other issues

- Populations at Bendigo and Murchison are need of verification.

### Existing conservation measures

- Two sites were visited during recovery plan preparation.

## Conservation objectives

### Long term objective

That the Swamp 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

Taxonomy will be clarified and habitat will be managed at the known population at Reedy Lake to prevent accidental damage by vehicles and to protect plants from kangaroo grazing. Searches will be undertaken at Bendigo and Murchison and appropriate protective measures implemented if required in consultation with landowners. Recovery will be jointly managed by DSE-Biodiversity & Natural Resources, Parks Victoria (PV) and private landowners. Community involvement will be sought.

### Intended management actions

The intended management actions listed below are further elaborated in DSE's 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: DSE (Biodiversity & Natural Resources Division, NE and NW Regions), Parks Victoria*

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: DSE (Biodiversity & Natural Resources Division, NE and NW Regions), Parks Victoria*

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

*Responsibility: DSE (Biodiversity & Natural Resources Division, NE and NW Regions), Parks Victoria*

4. Provide information and advice, including maps, regarding the location and management of Swamp Leek-orchid sites to landholders, land managers and other authorities,

especially Catchment Management Authorities and local government authorities.

*Responsibility: DSE (Biodiversity & Natural Resources Division, NE and NW Regions)*

5. Incorporate actions to protect, enhance and restore Swamp 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: North Central and Goulburn Broken Catchment Management Authorities*

6. Incorporate information regarding the location and management of Swamp 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: DSE (Biodiversity & Natural Resources Division, NE and NW Regions), Parks Victoria, landholders*

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

*Responsibility: DSE (Biodiversity & Natural Resources Division)*

9. Increase populations ex-situ. Collect and store seed from the Reedy Lake population and determine seed viability. Collect and store mycorrhizal fungi from the Reedy Lake population. Establish and maintain cultivated populations and record such collections in a database of threatened orchid taxa in cultivation.

*Responsibility: DSE (Biodiversity & Natural Resources Division), Royal Botanic Gardens*

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

*Responsibility: DSE (Biodiversity & Natural Resources Division)*

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

*Responsibility: DSE (Biodiversity & Natural Resources Division, NE and NW Regions), Parks Victoria*

## References

- 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>

This Action Statement was prepared under section 19 of the Flora and Fauna Guarantee Act 1988 under delegation from Chloe Munro, Secretary, Department of Natural Resources and Environment, October 2002.

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