Department of Sustainability and Environment

# Action Statement

Flora and Fauna Guarantee Act 1988 No. 159

# Mount Pilot Spider-orchid

## *Caladenia pilotensis*

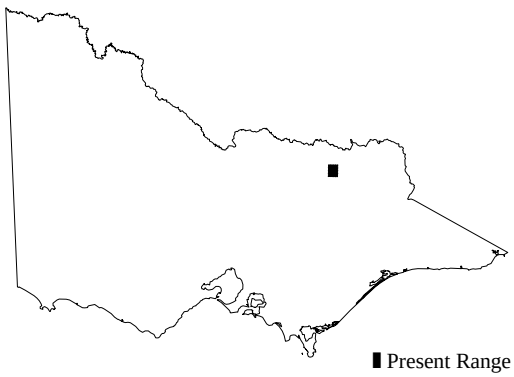
### Distribution

The Mount Pilot Spider-orchid (D.L. Jones) D.L. Jones & M.A. Clem. is endemic to Victoria, occurring in the Victorian Northern Inland Slopes Bioregion in the vicinity of Mount Pilot. Fewer than five plants are known to occur in the wild, in two populations. Unconfirmed reports exist of one additional, larger population. The Mount Pilot Spider-orchid is reserved at Chiltern-Pilot National Park, which is managed by Parks Victoria (PV), Central Victoria Region.

**Mt Pilot Spider-orchid** *Caladenia pilotensis*
(Photo: Geoffrey Car)

### Habitat

The Mount Pilot Spider-orchid *o*ccurs in *Eucalyptus polyanthemos – Eucalyptus goniocalyx – Callitris endlicheri* grassy open forest on well-drained, dark grey-brown granitic loam. Critical habitat has not been determined but is likely to consist of long unburnt woodland dominated by the above species on granite slopes.




**Distribution in Victoria** (DSE 2004)

### Conservation status

#### National conservation status

The Mount Pilot Spider-orchid has not been listed under the Commonwealth **Environment Protection and Biodiversity Conservation Act 1999** .

An assessment using the IUCN Criteria has been undertaken and the Mount Pilot Spider-orchid has been determined to be Critically Endangered.

#### Victorian conservation status

The Mount Pilot Spider-orchid has been listed as threatened under the **Flora and Fauna Guarantee Act 1988**.

The Mount Pilot Spider-orchid is classified as 'Endangered' in Victoria (DSE 2003).

## Decline and threats

### Current and potential threats with estimated risk

#### Current threats

Biology/Ecology

High - Limited or absent natural pollination; response to fire unknown; conditions for seed germination and maintenance of fungal activity unknown.

Weed invasion

Low at present – exotic annual grasses a potential threat.

Grazing

High – rabbit and kangaroo grazing.

#### Potential threats

Illegal collection

High - probably highly sought after by collectors.

Inappropriate fire regimes

Moderate – site is long unburnt but unplanned fires are possible.

Accidental damage

High – Potential for trampling from recreational users including rock climbers and walkers.

#### Other issues

- *C. pilotensis* is probably highly sought after by collectors, so that site confidentiality is vital. Involvement from non-government organisations and individuals will be limited to a small number of individuals with a proven track record in its conservation (Friends of Chiltern National Park, FOC).
- The response of *C. pilotensis* to fire is not known, and fire should be excluded indefinitely.
- The location of only one population, consisting of one or two plants, is known at present, one other larger population apparently exists but its precise location is unknown.
- The extremely small total population size indicates that protection of existing plants is critical.
- Apparently suitable habitat exists in the area and searches are urgently required.
- The known site was visited during preparation of the recovery plan.

## Existing conservation measures

- Annual searches at various sites around Mt Pilot since 1999.

## Conservation objectives

### Long term objective

That the Mount Pilot Spider-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

Broadscale risk management will include fire planning, protection of populations from grazing and accidental damage, and maintenance of site confidentiality. Searches of similar habitat in the immediate vicinity of Mt Pilot may uncover additional populations. The population will be managed to promote seedling recruitment, using fine-scale habitat management techniques. Populations will be re-stocked using seed from cultivated plants. Recovery will be jointly managed by DSE and PV. Involvement from the Friends of Chiltern will continue.

## 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 by acquiring baseline population data.

   *Responsibility: Parks Victoria, DSE (Biodiversity & Natural Resources Division, NE Region)*

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: Parks Victoria, DSE (Biodiversity & Natural Resources Division, NE Region)*

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

   *Responsibility: Parks Victoria, DSE (Biodiversity & Natural Resources Division, NE Region)*

4. 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.

   *Responsibility: Parks Victoria, DSE (Biodiversity & Natural Resources Division, NE Region)*

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

   *Responsibility: DSE (Biodiversity & Natural Resources Division, SW Region)*

6. Incorporate actions to protect, enhance and restore Mount Pilot Spider-orchid habitat into the North East Regional Catchment Strategy or its 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 East Catchment Management Authority*

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

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

8. Increase populations *ex-situ.* 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: DSE (Biodiversity & Natural Resources Division), Royal Botanic Gardens*

9. 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)*

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

    *Responsibility: DSE (Biodiversity & Natural Resources Division, SW Region)*

## 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 has been 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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