



BRINDABELLA MIDGE ORCHID ACTION PLAN

IMPLEMENTATION
PROGRESS REPORT
2020



Acknowledgment to Country

EPSDD acknowledge the Ngunnawal people as Canberra's first inhabitants and Traditional Custodians of Ngunnawal Country. We recognise the special relationship and connection that Ngunnawal people have with this Country. Ngunnawal people are a thriving people whose life and culture is connected unequivocally to this land in a way that only they understand and know, and is core to their physical and spiritual well-being. The past disconnection of the Ngunnawal people from Culture and Country has had long-lasting, profound and ongoing health and well-being effects on their life, cultural practices, families and continuation of their law/lore. We acknowledge the historic dispossession of the Ngunnawal people of Canberra and their surrounding regions. We recognise the significant contribution the Ngunnawal people make in caring for Country as for time immemorial they have maintained and will continue to maintain a tangible and intangible cultural, social, environmental, spiritual and economic connection to these lands and waters.

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Director-General, Environment, Planning and Sustainable Development Directorate, ACT Government, GPO Box 158, Canberra ACT 2601

Telephone: 02 6207 1923

Website: environment.act.gov.au

Produced by the

Environment, Planning and Sustainable Development Directorate.

This report was prepared by the ACT Conservator Flora and Fauna, Ian Walker, in accordance with the requirements of the Nature Conservation Act 2014 that requires the Conservator to report to the Minister every five years on an action plan (s. 108 (3)). The Minister is required to make the progress reports publicly accessible (s. 108 (4)).

This report was written by Julian Seddon, Senior Ecologist. The photos are attributed to Michael Maconachie.

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BACKGROUND

SPECIES DISTRIBUTION AND CONSERVATION STATUS

The Brindabella Midge Orchid—*Corunastylis ectopa* (Jones et al. 2002) is a small terrestrial orchid only known from a single site located in Namadgi National Park.

The Brindabella Midge Orchid is listed as Critically Endangered under the [Environment Protection and Biodiversity Act 1999](#) (EPBC Act) and the [Nature Conservation Act 2014](#) (ACT) (NC Act).

The Brindabella Midge Orchid Action Plan is included in the [Nature Conservation \(Threatened Ecological Communities and Species\) Action Plan 2013](#), in force from 15 November 2013. This is the second implementation progress report, the first was prepared in March 2015.

CONSERVATION

OBJECTIVE

The main conservation objective for the Brindabella Midge Orchid is the maintenance of a long-term, viable wild population of the species at the only confirmed site in the Brindabella Ranges. A supporting objective is that the habitat of the Brindabella Midge Orchid is conserved and managed so that natural ecological processes continue to operate.

These objectives are being achieved through the following strategies:

- **Survey, monitoring and research**—Maintain alertness to the possible presence of the Brindabella Midge Orchid while conducting vegetation surveys in appropriate habitat. Continue to monitor flowering of the orchid and the condition of habitat at the confirmed population site to provide information and guidance for management. Encourage and support research into the biology and ecology of the species, the potential for the propagation of ex situ populations, and potential for translocations.

→ **Protection and management**—Protect the known population and surrounding habitat from identified and potential threats including erosion, roadworks, shrub and weed invasion, herbicide use and illegal collection. Although the effects of fire on this species are unknown, protection is also being afforded through careful liaison with fire management staff in the ACT Parks and Conservation Service (PCS) to ensure wildfire and planned burning including pre-burn works do not impact the population.

PRIORITIES

As the species exists at only one known location, conservation efforts should continue to focus on protection of the site from the primary threats of road maintenance works and fire management activities. Support should also continue for ex situ conservation research work by the Australian National Botanic Gardens (ANBG) through provision of site access and scientific licences.

SUMMARY

The Brindabella Midge Orchid exists in only one known population in the Brindabella Ranges of the ACT. Although the population is entirely within the conservation estate as part of the Namadgi National Park the site is on a road cutting adjacent to a public road which potentially increases risks to the population due to periodic road works or illegal collection. Management of this species is largely focussed on monitoring the population for signs of decline and maintaining careful liaison with ACT Roads and the PCS staff around road and land management in the vicinity.

Population monitoring has been conducted annually since 2009 with a change in monitoring method introduced in 2013 to increase reliability of count data. Over the 11 years of monitoring the number of individual plants emerging to flower does not show an overall decline or increase; however, there are large inter-annual fluctuations, likely in response to the amount and/or timing of rainfall. A pattern appears to be emerging of a periodic strong flowering year followed by a gradual decline in numbers flowering over the subsequent three or four years.

To date, site specific threats to the population have been managed effectively; however, this will require ongoing vigilance and liaison with land managers. Longer term threats posed by climate change and potentially increased wildfire frequency and severity continue to be of concern for this species given its extremely limited population size and distribution. Consequently, research to support ex situ conservation remains important for the Brindabella Midge Orchid.



PROGRESS AGAINST INTENDED MANAGEMENT ACTIONS

Survey, Monitoring and Research

OBJECTIVE

Survey for other populations

ACTIONS

Maintain alertness to the possible presence of *Corunastylis ectopa* while conducting vegetation surveys in appropriate habitat (EPSDD)

INDICATOR

Conservation Research staff (EPSDD) are familiar with the species and are briefed regarding suitable habitat

PROGRESS

- EPSDD staff conducted two targeted searches for the species in the general vicinity of the confirmed population (2014 and 2016).
- In 2020, a joint EPSDD and ANU inspection of a possible second population on Pipeline Road located two individual *Corunastylis* plants but they were not flowering so identification to species was not possible. The site is to be revisited in late summer/early autumn 2021 to observe plants in flower to confirm if they are *Corunastylis ectopa*.

OBJECTIVE

Continue to monitor flowering of the orchid and the condition of habitat

ACTIONS

Annual population monitoring maintained

INDICATOR

Monitoring results collated and analysed, and associated condition of habitat at the site reported annually in EPSDD internal monitoring updates

PROGRESS

- The monitoring methodology was revised in 2013 to provide more accurate and reliable counts of flowering plants.
- Annual counts and site management recommendations were reported in the EPSDD Conservation Research monitoring updates from 2013–19; the 2020 update report is in preparation.
- The number of flowering individuals is variable between years and is probably associated with the timing and amount of rainfall. The maximum number counted in any year to date was 127 in 2013/14, followed by 115 in 2019/20 with the minimum number of 11 flowering individuals in 2017/18.
- The timing of flowering appears to be broader than the late summer/autumn period initially reported. Flowering individuals have been recorded throughout the year, including during winter.

OBJECTIVE

Encourage and support research into the biology and ecology of the species, the potential for the propagation of ex situ populations, and potential for translocations (EPSDD)

ACTIONS

Research focussed on developing *ex situ* conservation knowledge continuing and supported by EPSDD

INDICATOR

An improved understanding of the ecology of the species in particular the germination of seed to support ex situ conservation options

PROGRESS

- EPSDD continues to support ANBG seed collection from wild population through site access.

PROGRESS AGAINST INTENDED MANAGEMENT ACTIONS

Protection and Management

OBJECTIVE	ACTIONS	INDICATOR
Population is protected from the impacts of roadworks such as widening, realignment, new drainage, regrading of the embankment and bulldozing of firebreaks. (EPSDD, PCS and ACT Roads)	<ol style="list-style-type: none"> 1. Ensure ACT Roads and PCS staff are aware of the location and avoid road works in the vicinity of the population 2. Location is communicated to fire management officers 	<ol style="list-style-type: none"> 1. Road works do not impact the site 2. Wildfire mitigation works do not impact the site

PROGRESS

- An extended section of the road containing the population is clearly marked with road signs to alert workers to sensitive species in the area.
- ACT Roads and PCS works crews are briefed on the species and the need to avoid road widening.
- The location of the population appears as a sensitive ecological asset in the ACT Bushfire Pre-suppression Atlas
- EPSDD Conservation Research staff provide ecological input to strategic and operational fire management planning and ensure the population is considered in any planned fuel reduction or access management works.
- EPSDD provided ecological values officers during wildfire suppression operations both on-ground and in the Incident Management Team during the 2020 bushfires. Values officers have knowledge of the location of this species and detailed maps are provided to operational commanders to flag the site.

OBJECTIVE	ACTIONS	INDICATOR
Manage threats	Prepare a management plan for the species based on accurate mapping of the location of the plants (ESDD)	Management is maintained

PROGRESS

- This action plan has been sufficient to guide management and no other management plan has been necessary.
- Management of threats is being addressed through routine site monitoring and management and through representation of the conservation objectives and requirements with relevant land managers including ACT Roads and staff within the ACT PCS Namadgi District and the Fire, Forest and Roads Branch.

OBJECTIVE	ACTIONS	INDICATOR
Protect the site from any embankment destabilisation	Investigate and, if desirable and practicable, undertake appropriate works to stabilise the embankment near the <i>Corunastylis ectopa</i> population. (EPSDD, PCS and ACT Roads)	Embankment remains stable

PROGRESS

- This situation is reviewed opportunistically throughout the year and annually during the population monitoring surveys. No works have been undertaken to stabilise the embankment to date and, at this stage, does not appear necessary.

PROGRESS AGAINST INTENDED MANAGEMENT ACTIONS

OBJECTIVE

Manage site in context of location

ACTIONS

Coordinate, and provide guidance for management actions undertaken as part of the management of Namadgi National Park (EPSDD, PCS)

INDICATOR

PROGRESS

- Conservation Research maintains regular dialogue with PCS staff responsible for management of this area of Namadgi National Park including the Bendora ranger and staff from the Fire, Forests and Roads Branch of PCS. Site management is discussed and scheduled appropriately by park managers as part of their annual program of works.

OBJECTIVE

Protect habitat through threat abatement practices

ACTIONS

Undertake shrub and weed control in the orchid habitat, as required.
Provide advice to contractors

INDICATOR

Physical removal of woody pants and careful application of herbicide occurs as directed by annual population monitoring reports

PROGRESS

- Woody shrub growth was removed from the table drain along the road adjacent to the population by physical removal by hand crews in 2014/15.
- Woody pant growth has again increased in the roadside table drain over the past few years and requires physical removal. This will be scheduled for attention by PCS hand crews the 2020/21.

OBJECTIVE

Protect site through signage

ACTIONS

As the area is located on a roadside, maintain and update, as required, existing 'Roadside Conservation Area' signs, without identifying specific details about the site (PCS)

INDICATOR

Existing signage is in place and maintained

PROGRESS

- Existing signage is in place and will be maintained.

OBJECTIVE

Protect species through insurance mechanisms

ACTIONS

Based on the results of research, evaluate and, if feasible, undertake the establishment of ex situ populations of the species (ESDD)

INDICATOR

Insurance mechanisms are in place.

PROGRESS

- EPSDD continues to support ANBG to continue to build up a seed bank collected from the wild population including collection in 2019/20. The seed bank will facilitate germination and growth experiments to support ex situ conservation options.

