

Australian Capital Territory

Nature Conservation (Brindabella Midge Orchid) Conservation Advice 2019

Notifiable instrument NI2019–235

made under the

Nature Conservation Act 2014, s 90C (Conservation advice)

1 Name of instrument

This instrument is the *Nature Conservation (Brindabella Midge Orchid) Conservation Advice 2019*.

2 Commencement

This instrument commences on the day after its notification day.

3 Conservation advice for the Brindabella Midge Orchid

Schedule 1 sets out the conservation advice for the Brindabella Midge Orchid (*Corunastylis ectopa*).

Arthur Georges
Chair, Scientific Committee
1 May 2019

Schedule 1

(see s 3)



ACT
Government

Environment, Planning and
Sustainable Development



CONSERVATION ADVICE

BRINDABELLA MIDGE ORCHID

Corunastylis ectopa

CONSERVATION STATUS

The Brindabella Midge Orchid *Corunastylis ectopa* (D.L.Jones) D.L.Jones & M.A.Clem (Jones et al. 2002) is recognised as threatened in the following jurisdictions:

National **Critically Endangered**, *Environment Protection and Biodiversity Conservation Act 1999*
ACT **Critically Endangered**, *Nature Conservation Act 2014*

ELIGIBILITY

The Brindabella Midge Orchid is listed as Critically Endangered in the ACT Threatened Native Species List under IUCN Criterion B, Criterion C and Criterion D when it was assessed (in 2004). The factors that make it eligible include a *very restricted* geographic distribution (less than one hectare) that is precarious for the survival of the species with existing threats likely to cause an ongoing decline in numbers, if not abated; 50% decline in numbers from 1999; and a very low population (35 plants in 2004) (Threatened Species Scientific Committee (TSSC) 2005).

DESCRIPTION AND ECOLOGY

The Brindabella Midge Orchid, also known as the Ectopic Midge Orchid, is a terrestrial herb. It is a seasonal perennial, shooting from a dormant underground tuber after summer rain. The solitary leaf is cylindrical, 10–25 cm long by 0.15–0.3 cm wide, dark green to reddish at the base and encloses the flowering stem for most of its length. The inflorescence is 15–30 cm in length bearing 15–35 flowers in a densely crowded spike 2–4 cm long. The flowers are 5–5.5 mm in diameter and green and reddish purple or wholly reddish purple in colour (Milburn and Rouse 2004).

In the absence of rain in mid to late summer the plants remain dormant. The buds develop rapidly and flowering commences about six weeks after a triggering rain event, in the period late January to March (Milburn and Rouse 2004).



Brindabella Midge Orchid (Michael Maconachie)

DISTRIBUTION AND HABITAT

The Brindabella Midge Orchid is endemic to the ACT with a population of approximately 130 plants. Currently, it is only known from a single site of less than one hectare in the Brindabella Range at an altitude of 980 m. No other plants were located in a search of nearby similar habitat in 2004. The species is unknown outside the ACT (Milburn and Rouse 2004). Annual monitoring has been conducted since 2008 with numbers of individuals fluctuating from year to year with a low of 13 in 2013 and a high of 127 the following year in 2014 (ACT Government 2015).

The known location of the orchid is on Public Land (National Park) under the *Planning and Development Act 2007* (ACT). Given that this is the only known location of the species, it is considered to be an important population in terms of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and *Nature Conservation Act 2014* (ACT) (NC Act).

The Brindabella Midge Orchid grows on a steep slope with a northerly aspect in tall *Eucalyptus robertsonii* – *Eucalyptus viminalis* Montane Forest. The plants grow in an open area with sparse shrub cover. The soil is stony brown loam over shale derived from the Nungar Beds (Milburn and Rouse 2004). The site is subject to erosion. As this site is the only habitat where the species is known to occur, it is considered habitat critical for the maintenance and recovery of the species.

The location of the only known population of the Brindabella Midge Orchid has been defined (GPS coordinates) and mapped (Milburn and Rouse 2004), but not published to protect the site from illegal collection of plants.

THREATS

The Brindabella Midge Orchid has an extremely small population located at one site within 10 m of a road embankment. Because of its restricted distribution, location near an eroding road embankment, small population, characteristics of its life cycle (period of dormancy when its presence is not evident, short flowering period, and association with soil fungi) the species is highly susceptible to disturbance (Milburn and Rouse 2004). Threats detailed in the Action Plan (Frawley 2010ab) include:

- erosion
- roadworks
- shrub growth and weed invasion
- herbicides
- illegal collection (potential threat).

MAJOR CONSERVATION OBJECTIVES

The priority management objective is to preserve in perpetuity, in the wild, the only known population of the Brindabella Midge Orchid (Frawley 2010 a,b).

A supporting objective is that the habitat of the Brindabella Midge Orchid is conserved and managed so that natural ecological processes continue to operate (Frawley 2010a,b).

CONSERVATION ISSUES AND PROPOSED MANAGEMENT ACTIONS

Management of the site of the population of the Brindabella Midge Orchid is undertaken in the context of the *Namadgi National Park Plan of Management 2010* (ACT Government 2010), in particular, its native

vegetation objective and strategies (Chapter 5, Objective 5.9: Vegetation is managed to retain a high level of ecological integrity across representative communities, successional stages and age classes).

To achieve the *in situ* maintenance of the populations of the Brindabella Midge Orchid in the ACT the following actions were identified (Frawley 2010a,b) and are subject to reporting every five years and review every ten years.

- Ensure that the orchid population is protected from the impacts of roadworks such as widening, realignment, new drainage, regrading of the embankment and bulldozing of firebreaks.
- Prepare a management plan for the species based on accurate mapping of the location of the plants.
- Investigate and, if desirable and practicable, undertake appropriate works to stabilise the embankment near the Brindabella Midge Orchid population.
- Coordinate, and provide guidance for management actions undertaken as part of the management of Namadgi National Park.
- Undertake shrub and weed control in the orchid habitat, as required. Provide advice to contractors and park staff on appropriate herbicide use at the site. Herbicides should not come into contact with the orchid plants.
- 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.
- Based on the results of research, evaluate and, if feasible, undertake the establishment of *ex situ* populations of the species.

The species is monitored during the flowering season with counts of the numbers of plants occurring in the known population areas. In addition, searches are made annually in adjacent areas of similar habitat to detect changes in the population extent.

- Maintain alertness to the possible presence of the species while conducting vegetation surveys in appropriate habitat.
- Continue to monitor flowering of the orchid 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.

OTHER RELEVANT ADVICE, PLANS OR PRESCRIPTIONS

- ACT Action Plan — Brindabella Midge Orchid (Frawley 2010a)
- National Recovery Plan — Brindabella Midge Orchid (Frawley 2010b)
- Namadgi National Park Plan of Management 2010 (ACT Government 2010)

LISTING BACKGROUND

The Brindabella Midge Orchid was initially listed as an Endangered species on 11 April 2005 in accordance with section 38 of the *Nature Conservation Act 1980*. At that time, the Flora and Fauna Committee (now Scientific Committee) concluded that the assessment satisfied the following criteria:

- 1.2 Species is observed, estimated, inferred or suspected to be at risk of premature extinction in the ACT region in the near future, as demonstrated by:
 - 1.2.6 Extremely small population.

The Brindabella Midge Orchid – was listed as Critically Endangered under the EPBC Act on 6 June 2005. The Commonwealth Threatened Species Scientific Committee (TSSC) assessed the species as Critically Endangered under the EPBC Criterion 2, Criterion 3 and Criterion 4.

Under the NC Act, the category of Critically Endangered was included on the Threatened Native Species List for the first time. In 2019, the Scientific Committee recommended the Brindabella Midge Orchid be listed in the Critically Endangered category to align with the EPBC Act listing.

REFERENCES

- ACT Government 2010. *Namadgi National Park Plan of Management 2010*. Department of Territory and Municipal Services, Canberra. Accessed 23 January 2019 from: <https://www.legislation.act.gov.au/View/di/2010-192/current/PDF/2010-192.PDF>
- ACT Government 2015. *Brindabella Midge Orchid (*Corunastylis ectopa*). 2015 Annual Report*. Environment and Planning Directorate, Canberra.
- Frawley K 2010a. *Action Plan for the Brindabella Midge Orchid (*Corunastylis ectopa*)*, ACT Government, Canberra. Accessed 23 January 2019 from: http://www.environment.act.gov.au/_data/assets/pdf_file/0011/576551/Brindabella_Midge_Orchid_Action_Plan_-_Combined.pdf
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- Jones DL 1988. *Native Orchids of Australia* (Reed Books, Frenchs Forest, NSW).
- Jones DL, Clements MA, Sharma IK, Mackenzie AM and Molloy BPJ 2002. Nomenclatural Notes Arising from Studies into the Tribe Diurideae (Orchidaceae). *The Orchadian* 13(10): 437–468.
- Milburn PJ and Rouse DT 2004. Nomination of *Corunastylis ectopa* (D.L.Jones) D.L.Jones & M.A.Clements for consideration as an endangered species in the Australian Capital Territory under the Nature Conservation Act 1980 (A1980–20). Unpublished, nomination to the ACT Flora and Fauna Committee, Environment ACT, Canberra.
- Threatened Species Scientific Committee (TSSC) 2005. *Commonwealth Listing Advice on Brindabella Midge-orchid (*Corunastylis ectopa*)*. Accessed 23 January 2019 from: <http://www.environment.gov.au/biodiversity/threatened/species/brindabella-midge-orchid.html>.

FURTHER INFORMATION

Further information on the related Action Plan or other threatened species and ecological communities can be obtained from the Environment, Planning and Sustainable Development Directorate (EPSDD). Phone: (02) 132281, EPSDD Website: <http://www.environment.act.gov.au/cpr>