



ACT

Government

Environment and
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The Brindabella midge orchid – an endangered species

The Brindabella midge orchid (*Corunastylis ectopa*) is found only in the ACT – and in only one hectare of the Brindabella Range in Namadgi National Park.

This tiny orchid was only discovered in 1992. It was declared endangered by the ACT Fauna and Flora Committee in April 2005 and as critically endangered by the Australian Government in June 2005. Initially only 70 plants were found, but there are now estimated to be around 110 plants.

Also known as the ectopic midge orchid, the Brindabella midge orchid grows in an open part of the Namadgi eucalypt forest, on a steep slope that faces north. It grows amid a ground cover of low shrubs at 840 metres above sea-level.

This terrestrial (ground) orchid relies on rain to trigger annual flowering, so not all plants flower every year. In drought years such as 2009, no plants flowered, but more than 78 plants flowered in 2010 and 76 in 2011 after good rain. Plants grow 10–25 cm high and have 15–35 small flowers that are either green and reddish-purple or wholly reddish-purple.

The plant has an underground tuber that puts out a leaf after summer rain, flowering six weeks later, typically between late January and March. It then dies down and remains dormant until the next summer's rain. It is probably pollinated by a small fly. A soil fungus (a mycorrhizal fungal host) is needed for seeds to germinate and for adult plants to receive adequate carbon and nutrients.



Conservation threats

The main threats include:

- erosion of the steep site, particularly near the road
- weeds and unnatural shrub growth
- herbicides used to control shrubs and weeds near the site
- inadvertent damage by people.

Potential threats that need more investigation include:

- the effect of fire on the plants.

Conservation actions

Because there is only one known location of the orchid, it is critical to ensure the plants will survive into the future and be able to play their part in the natural ecological processes of the site.

Following the listing of the orchid as an endangered species, the ACT Government prepared a recovery plan (2008-13) that focusses on:

- protecting, managing and maintaining the orchids and their surrounding ecological community and
- gaining better information about the species and its role.

Conservation focuses on protecting the plants from threats. Fortunately, the site is in a national park, which gives the orchids and their habitat protection.



The population is monitored annually and counted each flowering season. The site is carefully managed to prevent weed invasion and too much shrub regrowth, which could affect the orchid's growing conditions, and to prevent roadworks affecting the site.

Current status

The ACT Government encourages and supports research into the biology and ecology of the Brindabella midge orchid.

The Australian National Botanic Gardens is developing protocols around seed collection so seed can be collected and stored in a seed bank. The Gardens are also developing a germination protocol for the seeds that is looking at the mycorrhizal fungus required in the germination process.

It is difficult to determine whether the total population is growing or declining given that different numbers of plants flower each year depending on the weather and other conditions. However, there are signs the population is reasonably healthy. For example:

- In the 2010–11 flowering season, 76 plants were seen, including 44 that had been previously recorded.
- Population estimates are now at 110 individuals, up from the original estimates of 70 plants.
- The plants' range is also slightly more than originally estimated.

The recovery plan will be reviewed/updated and continued if the species is still considered to be endangered in 2013.

More information

- www.environment.act.gov.au
- Action Plan 32: [http://www.environment.act.gov.au/_data/assets/pdf_file/0010/257509/Brindabella Midge Orchid Action Plan - Combined.pdf](http://www.environment.act.gov.au/_data/assets/pdf_file/0010/257509/Brindabella_Midge_Orchid_Action_Plan_-_Combined.pdf)
- Recovery plan: <http://www.environment.gov.au/biodiversity/threatened/publications/recovery/pubs/corunastylis-ectopa.pdf>
- Australian Government environment protection and biodiversity conservation: <http://www.environment.gov.au/epbc/protect/species-communities.html>

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Acknowledgements

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