PLANT

Diuris behrii — Behr's Cowslip Orchid

AUS	SA	AMLR	Endemism	Life History
-	V	V	-	Perennial

Family *ORCHIDACEAE*

Photo: © Peter Lang

Conservation Significance

The AMLR distribution is disjunct, isolated from other extant occurrences within SA. Within the AMLR the species' relative area of occupancy is classified as 'Very Restricted'.[3]

Has suffered one of the most significant declines of any South Australian orchid species.[1]

Different forms are recognised, some being critically endangered or extinct.[1]

Description

Flower stem to 40 cm tall. Leaves three to six, to 20 cm tall, in a grass-like tussock, flowers one to four, to 40 mm wide, bright yellow, often with some delicate brownish striations inside.[1]

Similar species: *Diuris chryseopsis*[1], now considered extinct in the AMLR (R. Bates *pers. comm.*).

Distribution and Population

Also occurs in NSW, ACT and VIC, at 200–800 m altitude.[6] In SA, occurs in SE, FR, EP, NL, YP and MU regions.[1,4]

Post-1983 AMLR filtered records isolated from east of Kaiser Stuhl CP in the Barossa, Charleston CP, Echunga, Belair NP, near Eagle on the Hill, and east of Stony Ridge.[3] Uncommon and widely scattered in the northern Lofty district.[4] Other known populations may include Woodside, Moppa Springs, Keyneton, Scott Creek and Williamstown, with populations ranging from a few plants to up to 400 plants (K. Brewer and J. Smith *pers. comm.*). Also known from Cherry Gardens and Millbrook.[2]

Pre-1983 AMLR filtered records indicate it once occupied a much wider distribution; in the Barossa, Adelaide Hills and eastern MLR, Monarto area, and Myponga and Inman Valley areas.[3]

Habitat

Grows in grassland, grassy forest and woodland on well-drained to moisture retentive soils.[5,6]

In SA occurs mostly in native grassland, open woodland and grassy forest clearings in more fertile soils, especially amongst Kangaroo Grass and *Triodia* on gentle slopes and flats. More rarely found on the granite aprons of massive tors.[1]

Recorded in the Adelaide Hills growing under Blue Gum (K. Brewer and J. Smith *pers. comm.*). In the northern AMLR, in *Allocasuarina verticillata* low open woodland over herbaceous understorey, and amongst rocky outcrops.[4]

Within the AMLR the preferred broad vegetation groups are Grassy Woodland and Grassland.[3]

Within the AMLR the species' degree of habitat specialisation is classified as 'Moderate-Low'.[3]

Biology and Ecology

Flowers from September to October, being later at higher altitudes.[1] Flowers freely in wet seasons.[6]

The pollinators are large black native bees (*Lasioglossum* sp.).[4] Flowers are often seen on cold days with a cluster of native bees on the labellum base. The flowers possibly trap warmth.[1]

Hybridises with co-occurring *Diuris* species. There are also many human-made hybrids.[1]

Aboriginal Significance

Post-1983 records indicate the majority of the AMLR distribution occurs in Kaurna and Peramangk Nations. It also occurs in Ngarrindjeri Nation.[3]

Further information:
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Government of South Australia

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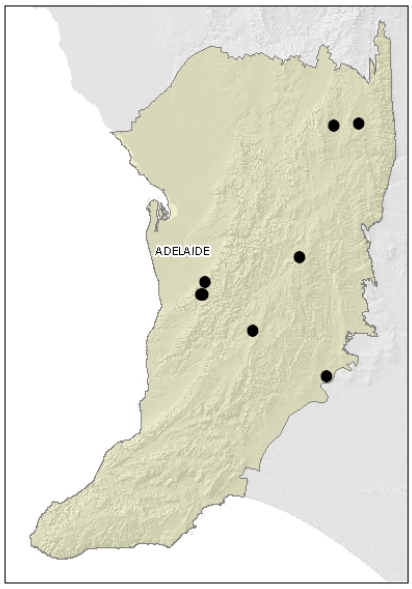
Threats

Threats include: weed competition; grazing by livestock, rabbits and kangaroos; habitat disturbance; and lack of formal protection. The effect of inappropriate fire regimes is unknown (K. Brewer and J. Smith *pers. comm.*).[2]

Within the AMLR, approximately one third of known distribution occurs within 2 km of confirmed or suspected *Phytophthora* infestations.[3]

Additional current direct threats have been identified and rated for this species. Refer to the main plan accompanying these profiles.

Regional Distribution



Map based on filtered post-1983 records.[3] Note, this map does not necessarily represent the actual species' distribution within the AMLR.

References

Note: In some cases original reference sources are not included in this list, however they can be obtained from the reference from which the information has been sourced (the reference cited in superscript).

1 Bates, R. J., ed. (2007). *South Australian Native Orchids. Electronic version, August 2007*. Native Orchid Society of South Australia.

2 Department for Environment and Heritage. (2007). Adelaide and Mount Lofty Ranges Regional Recovery Pilot Expert Flora Workshop, Unpublished Notes. Participants: Bickerton, D., Croft, T., Jury, T., Lang, P., Prescott, A., Quarmby, J. and Smith, K., Adelaide.

3 Department for Environment and Heritage (2007). *Adelaide and Mount Lofty Ranges Regional Recovery Pilot Project Database*. Unpublished data extracted and edited from BDBSA, SA Herbarium (July 2007) and other sources.

4 Department for Environment and Heritage (2007). *State Herbarium of South Australia Database*. Unpublished data, extracted October 2007.

5 Jones, D. and Jones, B. (2000). *A Field Guide to the Native Orchids of Southern Australia*. Bloomings Books, Victoria.

6 Jones, D. L. (2006). *A complete guide to native orchids of Australia including the island territories.* New Holland Publishers, Australia.

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