

ADELAIDE AND MOUNT LOFTY RANGES SOUTH AUSTRALIA

Threatened Species Profile

Department
for Environment
and Heritage

Microtis atrata

PLANT
Yellow Onion-orchid

AUS	SA	AMLR	Endemism	Life History
-	R	E	-	Perennial

Family ORCHIDACEAE



Photo: © Ken Bayley

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'. Relative to all AMLR extant species, the species' taxonomic uniqueness is classified as 'High'.⁴

Description

Minute, semi-aquatic species, 3-9 cm high (rarely to 20 cm when growing in water). Flowers five to forty, tiny, to 2 mm wide (the smallest of any Australian orchid) on a dense spike. Stem, leaves and flowers a yellowish-green colour, drying black.^{2,3}

Synonym: *Microtidium atratum*.²

Distribution and Population

Also occurs in WA, VIC and TAS. In SA occurs in EP, SL, KI and SE regions.³

Nationally only occurs in higher rainfall districts near the coast. In SA, more common on western KI, very uncommon near Port Lincoln and now very rare in

the AMLR and the SE.² Until recently grew on the shores of Lake Alexandrina.²

Post-1983 AMLR filtered records isolated, from Kaiser Stuhl CP, near Kesbrook, Mount Compass, near Deep Creek CP and north of Tunkalilla.⁴ Also recorded from an ephemeral wetland at Parafield.⁸

Pre-1983 AMLR filtered records indicate a wider distribution across southern AMLR from Cleland to Myponga and Inman Valley.⁴

Habitat

Occurs in moist, swampy areas.⁶ Semi-aquatic, occupying margins of temporary waterholes, damp heath, shallow creek-lines and seepages amid low sedges such as *Chorizandra enodis*. Usually found adjacent to clumps of tea-tree (*Leptospermum continentale*) and with other semi-aquatic onion orchids, such as *Hydorchis orbicularis*.²

Recorded from *Sclerolaena muricata* var. *villosa* low shrubland over exotic grasses and herbs at Parafield ephemeral wetland.⁸ Recorded from a floodplain area, growing near *Lepidosperma laterale* at Kaiser Stuhl CP.⁶

Despite the semi-aquatic nature of their habitat in the growing season, sites may bake hard in summer.²

Within the AMLR the preferred broad vegetation group is Wetland.⁴

Within the AMLR the species' degree of habitat specialisation is classified as 'Very High'.⁴

Biology and Ecology

Flowers from late September to early December.²

Forms small, dense colonies.³

May be in water up to a metre deep during winter. Flowering proceeds as the water level drops in spring, with flowers opening as soon as the flower spike is above the water level. In wet springs, flowering may be completed under water, in which case the flower buds swell but do not open. Nevertheless good seed set still occurs through apomixis.²

Flowering is greatly increased in the season following a fire however cover/abundance is likely to be severely reduced by three or more inappropriate fires.^{2,5}

Further information:

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<http://www.environment.sa.gov.au/>

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Prepared as part of the Regional Recovery Plan for Threatened Species and Ecological Communities of Adelaide and the Mount Lofty Ranges, South Australia 2009 - 2014



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Aboriginal Significance

Post-1983 records indicate the AMLR distribution occurs in Peramangk and Ngarrindjeri Nations.⁴

Orchidaceae species are recorded as being a traditional food source for Aboriginal people in NSW. The small tubers were roasted (Flood 1980).¹

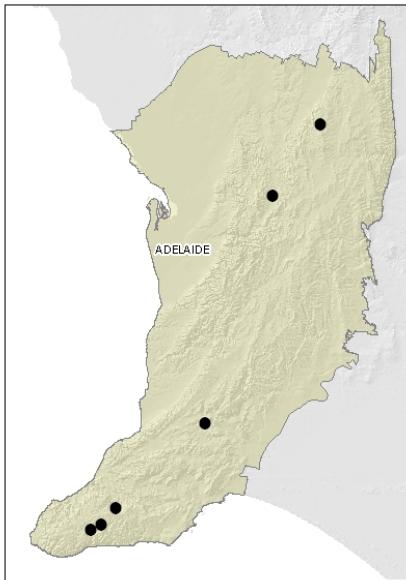
Threats

Threats include habitat loss and degradation, livestock grazing and trampling, human activities (tracks), weed invasion and altered water regimes.^{7,8}

Within the AMLR, the majority of known distribution occurs within 2 km of confirmed or suspected *Phytophthora* infestations.⁴

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.⁴ 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 Australian National Botanic Gardens (2007). *Aboriginal Plant Use - NSW Southern Tablelands*. Available from <http://www.anbg.gov.au/apu/index.html> (accessed August 2007).

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

- 3 Department for Environment and Heritage *Electronic Flora of South Australia species Fact Sheet: Microtis atrata Lindl.* Available from <http://www.flora.sa.gov.au> (accessed September 2007).

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

- 5 Department for Environment and Heritage (2007). *Combined Fire Response Database*. Unpublished data, extracted September 2007.

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

- 7 Department for Environment and Heritage (2007). *Wetlands Inventory Database of South Australia*. Unpublished data, extracted October 2007.

- 8 Threatened Plant Action Group (2004). *The Parafield ephemeral wetland - a critically endangered natural ecosystem of State significance. Comments to Commonwealth Department of Environment and Heritage on the impact of the Cross Keys Precinct Draft Major Development Plan on the ephemeral wetlands in the south-eastern sector of the Parafield Airport*.

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