



Pterostylis arenicola

Sandhill Greenhood

AUS	SA	AMLR	Endemism	Life History
V	V	E	State	Perennial

Family ORCHIDACEAE



Photo: © Malcolm Houston

Conservation Significance

Endemic to SA. The AMLR distribution is part of a limited extant distribution in adjacent regions within SA. Within the AMLR the species' relative area of occupancy is classified as 'Extremely Restricted'.⁵

Previously listed as nationally endangered, *Pterostylis arenicola* has been downgraded in Briggs and Leigh (1996) to nationally rare. However, Lang and Kraehenbuehl (1999) have retained it as vulnerable in South Australia.³

Description

Leaves several, in a flat basal rosette to 8 cm across, green at first but withering as flowering progresses. Flower stem to 25 cm tall. Flowers several, to about ten, red-brown and pale green, the galea to 2.2 cm high. Labellum oblong, thick, red, channelled, with short marginal hairs.²

Previously included in *Pterostylis boormanii* and *P. mitchellii*. Named *Oligochaetochilus arenicolus* in Bates (2007).²

Distribution and Population

Herbarium records indicate it has been collected from Adelaide at the Grange Golf Club and West Lakes, and from between Tailem Bend and Wellington (Murray Mallee region). Also recorded south-east of Langhorne Creek and near the lower Murray and Murray Lakes (MU, SL and SE regions).^{2,4}

Pre- and Post-1983 AMLR filtered records indicate a single record in the Adelaide suburb of Grange.⁵

The Grange Golf Club sub-population consists of about 100 individuals (Jusaitis and Sorensen 1994b).³

Habitat

Restricted to coloured sand dunes under *Callitris gracilis* low woodland. This habitat type was always restricted but is now reduced to a few small pockets. Also observed under *Melaleuca uncinata* near Langhorne Creek and occurs on limestone elsewhere.^{2,4,6}

Within the AMLR the preferred broad vegetation groups are Grassy Woodland, Shrubland and Mallee.⁵

Within the AMLR the species' degree of habitat specialisation is classified as 'Moderate-Low'.⁵

Biology and Ecology

Flowers late September to early October. Leaves senesce prior to flowering and flowers are pollinated by fungus gnats (Mycetophilids).⁴ Geophyte, arising annually from an underground tuber. Does not reproduce vegetatively.⁴

Deciduous after fruiting with underground tuberoids continuing the life-cycle after an annual period of dormancy (Bates and Weber 1990). New stem produced from the apical bud within the tuberoid over the winter months (R. Bates *pers. comm.* cited in Davies 1992; Jones 1988).⁶

Propagation requirements (*in vitro* and *in situ*) have been investigated (Jusaitis and Sorensen 1994).⁶

Aboriginal Significance

Post-1983 records indicate the entire AMLR distribution occurs in Kurna Nation.⁵

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

Further information:

Biodiversity Conservation Unit, Adelaide Region
Phone: (61 8) 8336 0901 Fax: (61 8) 8336 0999
<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





ADELAIDE AND MOUNT LOFTY RANGES SOUTH AUSTRALIA

Threatened Species Profile

Department
for Environment
and Heritage

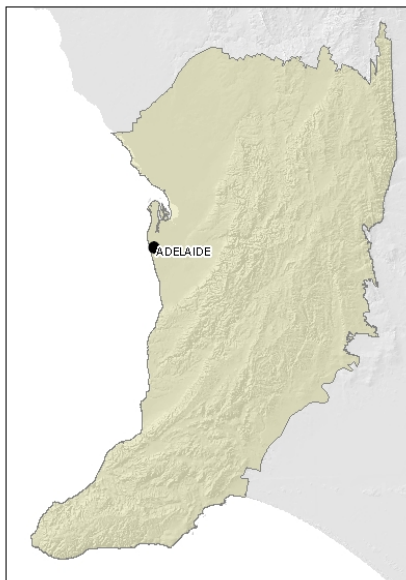
Threats

Threats to all known populations include:

- weed invasion: e.g. Bridal Creeper, Perennial Veldt Grass, Soursob, annual grasses, Salvation Jane and Onion Weed⁷
- Rabbits: browsing and digging and resultant soil disturbance⁴
- human impacts: trampling, reserve maintenance activities and illegal collecting (West Lakes population)^{4,8}
- inappropriate fire regimes
- lack of formal protection.⁶

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.⁵ 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 Davies, R. (2000). *Population trends for threatened plant species in parks and pastoral leases in South Australia*.

Report prepared for the Department for Environment and Heritage (Unpublished).

4 Davies, R. J.-P. (1992). *Threatened Plant Species of the Murray Mallee, Mount Lofty Ranges and Kangaroo Island Regions of South Australia*. Conservation Council of South Australia Inc., Adelaide.

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7 Pacala, S. W. and Rees, M. (1998). Models Suggesting Field Experiments to Test Two Hypotheses Explaining Successional Diversity. *American Naturalist* 152: 729-737.

8 Turner, M. S. (2001). *Conserving Adelaide's Biodiversity: Resources*. Urban Forest Biodiversity Program, Adelaide.

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