PLANT

Pterostylis cucullata ssp. *sylvicola* — Leafy Greenhood

AUS	SA	AMLR	Endemism	Life History
V	E	E	-	Perennial

Family *ORCHIDACEAE*

Photo: © Joe Quarmby

Conservation Significance

In SA, the majority of the distribution is confined within the AMLR, disjunct from the remaining extant distribution in other States. Within the AMLR the species' relative area of occupancy is classified as 'Very Restricted'.[5]

Jones (2006) described two subspecies of *Pterostylis cucullata,* ssp. *cucullata* and ssp. *sylvicola*.[6,7] *P. cucullata* ssp. *cucullata* is probably extinct in SA due to past land clearance. *P. cucullata* ssp. *sylvicola* is endangered throughout its range.[3]

Description

Three to seven leaves in a suberect basal rosette; elliptical, to 10 cm long, thick textured. Flower stem to 30 cm tall, robust, with several large elliptical stem leaves. Flower solitary, dark velvety brown, green and white.[3,7]

Distribution and Population

Also occurs in VIC and TAS.[4]

In SA the only substantial population occurs in Belair NP. Outside Belair NP, it is found in six small, threatened sub-populations (Davies 1995). The SE region sub-population is now considered extinct.[8]

Five subpopulations in South Australia were confirmed in 2006 surveys with an estimated population size of between 4700 and 11200 plants (J. Quarmby *pers. comm*. 2009).

Currently restricted to the SMLR, but may have once also extended to the southern Flinders Ranges.[3]

In 2008 a large sub-population of over 350 plants was rediscovered along the Sturt River (J. Quarmby *pers. comm*. 2009).

Post-1983 AMLR filtered records numerous from Belair RP and isolated in the Lobethal area.[5]

Pre-1983 AMLR filtered records indicate a more southerly distribution with additional records from Little Para Reservoir, Myponga and Hindmarsh Valley.[5]

Habitat

Occurs in *Eucalyptus leucoxylon* Open Forest, often with *E. viminalis, E. camaldulensis* or *E. obliqua*. Shrub layer typically very sparse *Acacia pycnantha, A. melanoxylon, Bursaria spinosa* and *Acrotriche fasciculiflora*. Groundcover dense and diverse with grasses, ferns, lilies, orchids and other annual herbs, often including *Microlaena stipoides, Adiantum aethiopicum, Cheilanthes austrotenuifolia,* and *Lomandra* spp. Occurs on moist, south to south-east facing slopes/ridges in sandy loam soils.[1,3,7,8]

Within the AMLR the preferred broad vegetation group is Grassy Woodland.[5]

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

Biology and Ecology

Flowers from late July to early October.[3]

Possibly pollinated by fungus gnats (Mycetophilidae). Known to hybridise with *Pterostylis curta* and *P. nutans*.[1,3,7]

Forms small colonies although most recruitment is via seed.[3] Average longevity unknown, but assumed to be more than 15 years.[7]

Fire is known to cause a decline in flowering but will gradually recover with time post-fire. Too frequent fires could negatively affect populations (R. Bates *pers. comm.* 2006; DEH 2006a).[7]

Further information:
Biodiversity Conservation Unit, Adelaide Region
Phone: (61 8) 8336 0901 Fax: (61 8) 8336 0999
http://www.environment.sa.gov.au/

Government of South Australia

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

Aboriginal Significance

Post-1983 records indicate the majority of the AMLR distribution occurs in Kaurna Nation. Also present in central Peramangk Nation.[5]

Species of Orchidaceae are recorded as being a traditional food source for Aboriginal people in NSW. The small tubers were roasted (Flood 1980).[2]

Threats

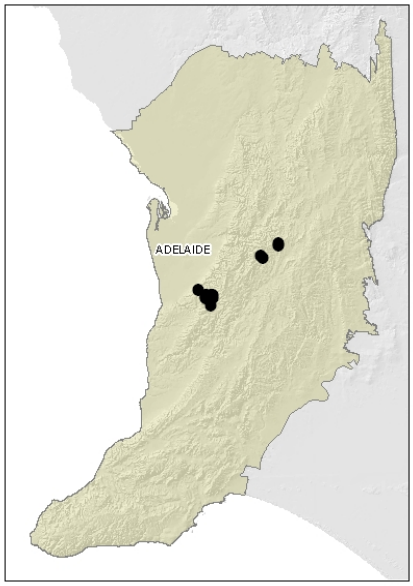
Threats include:

- weed invasion and competition: weed species include Boneseed, Montpellier Broom, Sweet Pittosporum, Olive, Blackberry, Gorse, Tree Heath, Sparaxis, Three-cornered Garlic, Ivy, Plantain, Cleavers and Soursob (Davies 2004)[7]
- grazing by Rabbits, Hares, Kangaroos, snails and other invertebrates
- small population size resulting in inbreeding and loss of genetic diversity
- impact of fire: frequent prescribed burning or fires may have a detrimental impact, the potential for post-fire weed incursion is also a threat to populations
- human impacts: road and track management activities, recreational activities including horse riding and mountain biking[8]
- illegal collection of plants from the wild for cultivation is still considered a potential threat.[7]

Within the AMLR, the majority of known distribution occurs within 2 km of confirmed or suspected *Phytophthora* infestations.[5]

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 Armstrong, D. M., Croft, S. N. and Foulkes, J. N. (2003). *A Biological Survey of the Southern Mount Lofty Ranges, South Australia, 2000-2001*. DEH, SA.

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

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

4 Council of Heads of Australian Herbaria (2002). *Australia's Virtual Herbarium*. Available from http://www.flora.sa.gov.au/avh/ (accessed July 2007).

5 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.

6 Jones, D. L. (2006). Miscellaneous new species of Australian Orchidaceae. *Australian Orchid Research* 5.

7 Quarmby, J. P. (2006). *Recovery Plan for Twelve Threatened Orchids in the Lofty Block Region of South Australia 2007 - 2012*. Department for Environment and Heritage, SA.

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

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