



PLANT

Caladenia valida

Robust Spider-orchid

| AUS | SA | AMLR | Endemism | Life History |
|-----|----|------|----------|--------------|
| - | E | 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'.³

Synonym: *Arachnorchis valida*. Previously also included under *C. reticulata*, *A. huegelii* or as *C. aff. Huegelii*.¹

Description

Leaf lanceolate, to 15 cm, decumbent or semi erect in dense vegetation, with dense short hairs, base blotched red. Stem to 40 cm tall, hairy. Flowers usually single, to 7 cm across, opening green, then fading white to cream, the segments often with red streaks.¹ Extremely variable in flower size and for that reason South Australian plants are treated as forms of *Caladenia valida*. *C. reticulata* occurs adjacent to some populations of *C. valida*, yet there are no intergrades as they are pollinated by a different wasp species.¹

Distribution and Population

Currently less than 100 plants known from three subpopulations in this region.⁶ The largest subpopulation (40-50 plants) is located at Newland Hill and the other two (10-20 and 5-10 plants) within Newland Head Conservation Park.⁶ There are purportedly more populations on Kangaroo Island, however no recent records have been documented (J. Quarmby *pers. comm.* 2009).

In SA, restricted to Kangaroo Island and southern Fleurieu Peninsula. Also occurs in VIC.¹

Post-1983 AMLR filtered records restricted to Southern Fleurieu Peninsula, occurring at Newland Head CP and Myponga CP.

Pre-1983 AMLR filtered records indicate a similar distribution, with records also from Waitpinga, Back Valley, Wattle Flat near Yankalilla, Myponga and Cape Jervis.^{3,4}

Attempts to relocate plants from the Myponga site were unsuccessful (J. Quarmby *pers. comm.* 2009).

Habitat

Mainly coastal in heathy forest and scrub.⁵ On various soil types including sand and laterite in scrubby woodland and heath, preferring small clearings, often in the protection of grass trees (*Xanthorrhoea* spp.).¹ Occurs in low open forests or tall mallee dominated by various combinations of *Eucalyptus cosmophylla* (Cup Gum), *E. diversifolia* (Coastal White Mallee) and *E. baxteri* (Brown Stringybark), with a sparse to dense groundcover stratum.²

Within the AMLR the preferred broad vegetation groups are Heathy Woodland, Heathy Open Forest and Mallee.³

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

Biology and Ecology

Flowers between late August and October, pollinated by sexually-attracted wasps (*Phymatothynnus pygidialis*).¹ Flowering appears to be enhanced by summer fires.⁵

Summer deciduous, dying back after flowering to a dormant fleshy subterranean tuberoid. Re-shoots after

Further information:

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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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autumn rains, producing a leaf before sending up its flower-head (Jones 1988).²

Aboriginal Significance

Post-1983 records indicate the majority of the AMLR distribution occurs in southern Ngarrindjeri. Also present in southern Kaurna Nation.³

Threats

Threats include:

- weed invasion and competition
- competition from native plants, especially in areas with dense vegetation
- grazing of plants and digging of tubers by animals
- insect damage to flowers
- human impacts (e.g. collecting and trampling)
- road and track maintenance works
- loss of genetic variability
- low reproduction rates.²

Within the AMLR, approximately one third of its 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 Davies, R. J. P. (2005). *Action statement for the Robust Spider-orchid (Caladenia valida)*. Department of environment and Heritage, South Australia and Threatened Plant Action Group, 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. L. (2006). *A complete guide to native orchids of Australia including the island territories*. New Holland Publishers, Australia.

⁶ Quarmby, J. P. (2009). *Draft Recovery Plan for Twelve Threatened Orchids in the Lofty Block Region of South Australia 2007 - 2014*. Department for Environment and Heritage, South Australia.

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