

ADELAIDE AND MOUNT LOFTY RANGES SOUTH AUSTRALIA

Threatened Species Profile

Department for Environment and Heritage

Red Beard-orchid

PLANT

Calochilus paludosus

AUS	SA	AMLR	Endemism	Life History
-	V	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 'Extremely Restricted'. Relative to all AMLR extant species, the species' taxonomic uniqueness is classified as 'High'.³

Description

Beard-orchid. Leaf single, slender, to 18 cm long and 5 mm broad, ribbed, green with considerable amounts of red. Flower stem slender but rigid, to 30 cm tall, green or red tinted. Flowers one to five, about 25 mm across, freely opening, yellow-green with red strips. Easily identified by the narrow red leaf, and lack of eye-like glands on column base of the flower.¹

Distribution and Population

Currently only known from one very small population in My Billy CP (J. Quarmby *pers. comm.* 2009).

Rare and restricted to swampy areas in SA, but common and widespread in the eastern states.¹ One plant was seen at Mount Billy after the last bushfire (R. Bates *pers. comm.*).

Occurs in QLD, NSW, VIC, TAS and NZ. In SA occurs in SL, KI and SE regions. $^{2.6}$

Post-1983 AMLR filtered records confined to Mount Billy CP/ Hindmarsh Valley area.³

Pre-1983 AMLR filtered record from southern Fleurieu Peninsula, north of Tunkalilla.³

Habitat

Occurs on peaty, leached acid sands around swamp margins or on raised mounds of peat in more open swamps. Usually seen on disturbed ground.¹ Often associated with *Xanthorrhoea* spp.²

At Mt Billy CP occurs on damp sandy loam, growing near *Eucalyptus cosmophylla*.⁵ Historically at Mount Crawford, where it occurred in *Eucalyptus fasciculosa* and *E. goniocalyx* woodland.⁵

Within the AMLR the preferred broad vegetation groups are Heathy Woodland and Wetland.³

Within the AMLR the species' degree of habitat specialisation is classified as 'High'.³

Biology and Ecology

Flowers between October and November.¹ Self-pollinated (R. Bates *pers. comm.*).

Cover and abundance likely to be severely reduced by three or more inappropriate fires.⁴

Aboriginal Significance

Post-1983 records indicate the entire AMLR distribution occurs in southern Ngarrindjeri Nation.³

Threats

Threats include inadequate recruitment, small population size, habitat specificity and browsing by herbivores and invertebrates (J. Quarmby *pers. comm.* 2009).

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



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As with a large proportion of SA's orchids, decline is due to habitat clearance.¹ Weed competition is also an important threat, with *Phalaris* sp. smothering the whole population at one site (R. Bates *pers. comm.*).

Limited occurrence within the AMLR, however the majority 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 *Electronic Flora of South Australia species Fact Sheet: Calochilus paludosus R.Br.* Available from <u>http://www.flora.sa.gov.au</u> (accessed August 2007).

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.

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

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

4 Department for Environment and Heritage (2007).

Combined Fire Response Database. Unpublished data,

extracted September 2007.



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