

# ADELAIDE AND MOUNT LOFTY RANGES SOUTH AUSTRALIA Threatened Species Profile

Department for Environment and Heritage

Plum Leek-orchid

PLANT

## Prasophyllum pruinosum

AUS	SA	AMLR	Endemism	Life History
-	V	E	AMLR	Perennial

Family ORCHIDACEAE



Photo: © J. Quarmby

#### **Conservation Significance**

Endemic to the AMLR where the species' relative area of occupancy is classified as 'Extremely Restricted'.<sup>3</sup>

A record from SE is incorrect therefore it is considered an AMLR endemic (T. Croft *pers. comm*.).

Nomination for listing as Endangered prepared by DEH in 2009 (J. Quarmby *pers. comm.* 2009).

#### Description

Leek-orchid, slender, rigid, to 40 cm tall. Flowers numerous, in a narrow crowded spike, in tones of yellow-green, brown, purple-plum and white. Flowers have light minty or musty-sweet odour. Leaf red at base.<sup>2</sup>

Sometimes regarded as an aberrant member of the *Prasophyllum patens* complex.<sup>2</sup>

#### **Distribution and Population**

Once common but now extinct on the Adelaide Plains. Has experienced a significant decline

throughout its limited range over the past 50 years.<sup>2</sup>

Post-1983 AMLR filtered records restricted to two localities, near Rowland Flat in the Barossa and near Black Hill CP. $^3$ 

Known from eight sites with a total population size of 280 plants in 2008, but may have previously occurred at as many as 21 sites (J. Quarmby *pers. comm.* 2009). Sandy Creek and Belair NP have the largest populations (J. Quarmby *pers. comm.* 2009).

Pre-1983 AMLR filtered records indicate a much wider historic distribution, occurring from the northern Adelaide Plains near Roseworthy, Lyndoch and One Tree Hill, along the foothills south to Port Noarlunga, and east to the Mount Barker area.<sup>3</sup>

#### Habitat

Open woodland and grassy forest with *Callitris gracilis, Eucalyptus leucoxylon* and *E. fasiculosa.* Occurs in the open or in the shelter of broom-like shrubs in well-drained fertile loams and sandy soils, usually with other leek-orchids.<sup>2</sup>

In the Barossa occurs on deep sandy soils, with *Callitris* gracilis, Acacia leucoxylon and Eucalyptus fasciculosa.<sup>4</sup>

Within the AMLR the preferred broad vegetation group is Grassy Woodland.  $^{\scriptscriptstyle 3}$ 

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

#### **Biology and Ecology**

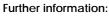
Flowers from late September to November. An outcrossing species, visited by bees and flies.<sup>2</sup>

Flowers freely without fire. Too frequent fires have destroyed entire sub-populations, e.g. at Anstey Hill.<sup>2</sup>

#### **Aboriginal Significance**

Post-1983 records indicate the AMLR distribution occurs in Kaurna Nation and Ngadjuri Nation (bordering Peramangk Nation).<sup>3</sup>

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



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



© Department for Environment and Heritage FIS 90346 May 2008

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



Department for Environment and Heritage

#### Threats

Various threats are contributing to the decline of this species:

- weed competition (e.g. Boneseed and Bridal Creeper)
- grazing impact from rabbits, kangaroos and stock
- human impacts
- lack of formal protection for some sites (e.g. Wadmore Park)
- lack of recruitment of shrubs related to inappropriate fire regimes (R. Bates, K. Brewer and J. Smith *pers. comm.*).

Very limited occurrence in AMLR region, however approximately half of known distribution occurs within 2 km of confirmed or suspected *Phytophthora* infestations.<sup>3</sup>

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.<sup>3</sup> 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 <u>http://www.anbg.gov.au/apu/index.html</u> (accessed August 2007).

#### Further information:

Biodiversity Conservation Unit, Adelaide Region Phone: (61 8) 8336 0901 Fax: (61 8) 8336 0999 <u>http://www.environment.sa.gov.au/</u> © Department for Environment and Heritage FIS 90346 May 2008

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

**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 (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.

