

ADELAIDE AND MOUNT LOFTY RANGES SOUTH AUSTRALIA Threatened Species Profile

Department for Environment and Heritage

Leionema hillebrandii

AUS	SA	AMLR	Endemism	Life History
-	R	V	AMLR	Perennial

Family RUTACEAE



Photo: © P. Ainsley

Conservation Significance

Endemic to the AMLR where the species' relative area of occupancy is classified as 'Very Restricted'. Relative to all AMLR extant species, the species' taxonomic uniqueness is classified as 'Very High'.⁴

Restricted distribution, endemic to higher rainfall parts of the AMLR (T. Jury *pers. comm.*). The Kangaroo Island variant is close morphologically to *Phebalium brachyphyllum*. Mainland plants are very close to the Grampians variants of *P. bilobum* in VIC. Species delimitation requires further investigation.⁶

Description

Small straggly shrub to 60 cm. Stems smooth, reddish to olive brown, branchlets slender. Flowers in clusters of two to sixteen, white with pink on back of petals. Leaves soft, dark green. Black seeds.^{2,5,6}

Synonym: Phebalium hillebrandii.

Distribution and Population

Restricted to SA in the SL region.¹

The 1983 record at Mount Boothby CP in the SE is a mis-identification, and is probably *L. microphyllum* (T. Croft *pers. comm.*).

Restricted occurrence in the high rainfall parts of the AMLR (T. Croft and T. Jury *pers. comm.*). fifteen to twenty sub-populations from South Para to Scott

Further information:

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

Creek, restricted to mostly small vegetated fragments (T. Jury *pers. comm.*).

Post-1983 AMLR filtered records from Cleland, Mylor and Scott Creek/Mount Bold areas. Also an isolated occurrence near Williamstown.⁴

Pre-1983 AMLR filtered records suggest a similar distribution, however there are also records from Belair and east of Bethany, Barossa Valley.⁴

Has not been relocated at Warren CP.³

Habitat

Found in heathy woodland and forest gullies (A. Prescott *pers. comm.*). Often in open rocky habitat along steep gullies (T. Jury *pers. comm.*).

Recorded AMLR habitats include:

- Scott Creek CP: amongst rocks on a moss covered rocky outcrop, low open woodland to shrubland; in association with *Eucalyptus obliqua*, *Acacia pycnantha*, *Prostanthera behriana*, *Allocasuarina muelleriana* and *Spyridium parvifolium*
- Bridgewater: in open woodland to shrubland with Eucalyptus baxteri, Spyridium parvifolium, Ixodia achillaeoides and Hakea carinata
- Blackwood Golf Course, Cherry Gardens: on slope overlooking creek, very rocky area, *Eucalyptus cosmophylla, E. obliqua* association with scattered *Exocarpos cupressiformis, Leptospermum sp.* and *Daviesia ulicifoli.*, ⁵

Within the AMLR the preferred broad vegetation groups are Heathy Woodland and Riparian.⁴

Within the AMLR the species' degree of habitat specialisation is classified as 'High'.⁴

Biology and Ecology

Flowers from August to October.²

Aboriginal Significance

Post-1983 records indicate the AMLR distribution occurs in Peramangk and Kaurna Nations.⁴

Threats

Threats include habitat degradation and climate change, human impacts such as residential subdivision, and weed competition (e.g. Watsonia and Gorse) (T. Croft and T. Jury *pers. comm.*).³



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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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Occurs sympatrically with *Acacia gunnii*, in a fragmented habitat which is prone to drying from any reduction in rainfall associated with climate change (P. Lang and T. Croft *pers. comm.*).

The majority of known distribution occurs within 2 km of confirmed or suspected *Phytophthora* infestations.⁴

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.⁴ 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 Barker, W. R., Barker, R. M., Jessop, J. P. and Vonow, H. P., eds. (2005). *Census of South Australian Vascular Plants, 5th Edition.* Botanic Gardens of Adelaide & State Herbarium, Adelaide.

2 Department for Environment and Heritage *Electronic Flora* of *South Australia species Fact Sheet: Phebalium hillebrandii J. H. Willis* Available from <u>http://www.flora.sa.gov.au</u> (accessed November 2007).

3 Department for Environment and Heritage. (2007). Adelaide and Mount Lofty Ranges Regional Recovery Pilot Expert Flora Workshop, Unpublished Notes. Participants: Bickerton, D., Croft, T., Jury, T., Lang, P., Prescott, A., Quarmby, J. and Smith, K., Adelaide.

Further information:

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4 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 Jessop, J. P. and Toelken, H. R., eds. (1986). *Flora of South Australia.* South Australian Government Printing Division, Adelaide.

