



PLANT

Allocasuarina robusta

Mount Compass Oak-bush

AUS	SA	AMLR	Endemism	Life History
E	E	E	AMLR	Perennial

Family CASUARINACEAE



Photo: © J. Quarmby

Conservation Significance

Endemic to the AMLR. Within the AMLR 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'.¹

Phylogenetic and population genetic studies are being undertaken in 2009 to assess the taxonomic status of AMLR populations (J. Quarmby *pers. comm.* 2009).

Description

Erect, rigid shrub growing to between 0.2 and 3 m. Branchlets are reddish-brown to grey-coloured and up to 20 cm long. Cones are stalkless or on short stalks (Macklin 1927; Wilson and Johnson 1989).³

Distribution and Population

Restricted to southern Fleurieu Peninsula, in the Mount Compass and Hindmarsh Valley areas (SA DEH Reserves Database 2005; State Herbarium of SA

2005).³

Surveys in 2008 and 2009 identified 21 locations with an estimated total population size of 550 plants (J. Quarmby, 2009 unpubl. data).

Total extent of occurrence of all known populations estimated at 184 km² (based on herbarium and reserve database records as at May 2005).³

Recent discoveries (e.g. Meadows Creek) are likely to increase the extent of occurrence.

Persists mainly in small scattered populations in roadside vegetation. Important populations are in Stipiturus CP, which is the only population currently in a reserve, Meadows Creek, Hindmarsh Falls, and Hindmarsh Valley Road and adjoining roads.

Pre-1983 AMLR filtered records indicate the historic distribution was centred around the Mount Compass area, with scattered records as far west as Yankalilla, south-west around Victor Harbor and north to Kuitpo.¹

Habitat

Associated with EPBC listed Swamps of the Fleurieu Peninsula. Grows in low-lying areas with sandy loam soil, often around the margins of swamps and creeks. Commonly associated species include *Eucalyptus ovata*, *E. baxteri*, *Leptospermum continentale*, *Hakea rugosa*, *Melauleuca decussata*, *Banksia marginata*, and *Leptocarpos tenax*.

Within the AMLR the preferred broad vegetation groups are Heathy Woodland and Wetland.¹

Within the AMLR the species' degree of habitat specialisation is classified as 'High'.¹

Aboriginal Significance

Post-1983 records indicate the AMLR distribution occurs in three Nations; southern Peramangk, southern Kaurna and central Ngarrindjeri.¹

Threats

Main threats relate to roadside management (e.g. herbicide spraying, road verge widening, pruning etc) (J. Quarmby *pers. comm.* 2009).²

Additional current threats include:

- Clearance and grazing around swamp margins
- Incremental damage and habitat clearance

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





ADELAIDE AND MOUNT LOFTY RANGES SOUTH AUSTRALIA

Threatened Species Profile

Department
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and Heritage

- Weed invasion (e.g. pasture grasses, broom, gorse and *Watsonia*) (J. Quarmby *pers. comm.* 2009).

Geographic distribution is both restricted and fragmented. Likely to continue to decline due to ongoing habitat degradation.³

Expected to have a low chance of re-colonisation and seedling recruitment due to weed invasion, grazing and the species high level of habitat specificity (J. Quarmby *pers. comm.* 2009). Populations are probably characterised by low genetic diversity (J. Quarmby *pers. comm.* 2009).

Plants are in poor health at many locations with evidence of senescence and low recruitment (J. Quarmby *pers. comm.* 2009).

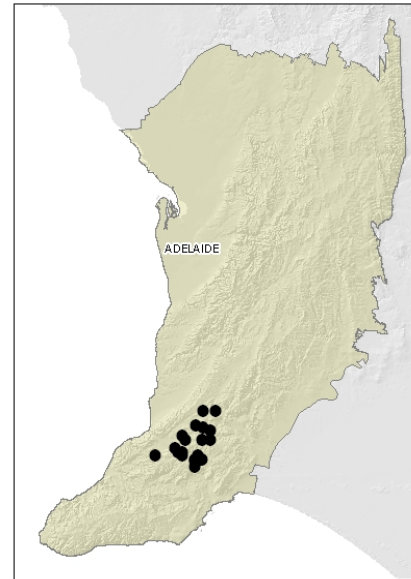
Grazing by cattle, kangaroos, rabbits and hares may also impact on sub-populations (K. Brewer and J. Smith *pers. comm.*).

Past declines in swamp habitat in the lower Fleurieu Peninsula may have resulted in declines in the population size. Information on the historical distribution and population densities is insufficient to quantify the impact of habitat loss.³

Within the AMLR, approximately one third of known distribution occurs within 2 km of confirmed or suspected *Phytophthora* infestations.¹

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.¹ 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 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.

² Department for Environment and Heritage (2007). *State Herbarium of South Australia Database*. Unpublished data, extracted October 2007.

³ Threatened Species Scientific Committee (no date). *Allocasuarina robusta (Mount Compass Oak-bush) listing advice*.

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