

Action Statement

Flora and Fauna Guarantee Act 1988

No. 161

Pale Myoporum *Myoporum brevipes*

Description and distribution

Pale Myoporum (*Myoporum brevipes* Benth.) is a decumbent or erect shrub up to 2m in height, glabrous with tuberculate branches. Leaves, mostly 35 - 40mm long and 2 - 8mm wide, are alternate, clustered, vary in shape and are glabrous and tuberculate. Flowers, with corolla 4 - 6mm long, are white or pink and often spotted, are located in the leaf axil single or in groups of up to six. Pale Myoporum flowers mainly from October to February (Walsh and Entwisle 1999). The fruits, approximately 5mm in diameter, are succulent, globular and white. A more detailed description is provided in Walsh and Entwisle (1999).

Pale Myoporum is widespread in South Australia, occurring along the Nullarbor Plain, on the Eyre Peninsula, southern Yorke Peninsula and the Murray Regions with scattered occurrences in the northern Flinders Ranges and the Lake Eyre Basin, and one record from the south-eastern region (Bob Chinnock *pers. comm.*). The species was believed to be restricted to South Australia, but populations have recently been found in north-western Victoria and south-eastern Western Australia. Bob Chinnock (*pers. comm.*) thought that it was possible these populations were introduced. However, the Victorian occurrences are now thought to be indigenous.

Only two populations are known from Victoria. One, discovered in the late 1980s, near Boinka (Ouyen). The other was discovered in February 2001 NW of the Boinka population, and NNE of Murrayville.

Habitat

Across its range, Pale Myoporum grows on calcareous sandy loams or on sand dunes in coastal or inland saline lake systems in open situations often on roadsides or tracks in mallee *Eucalyptus*, *Melaleuca* or *Acacia* shrubland.



Pale Myoporum *Myoporum brevipes*
(Photo: John Eichler)



Distribution in Victoria (DSE 2004)

It has been collected on gypseous soils in the Lake Eyre Region in South Australia (Bob Chinnock *pers. comm.*).

The two populations in Victoria occur along roadsides. The Boinka population is in mallee scrub including Dumosa Mallee *Eucalyptus dumosa* and Oil Mallee *E. oleosa* on red sand over limestone. The Murrayville population, a single plant, is situated about 40 metres downslope from the nearest mallee *Eucalyptus* specimen, and is growing within a land system containing copi.

Life history and ecology

Little is known about the life history and ecology of Pale *Myoporum*. The species is however considered a disturbance opportunist (Bob Chinnock *pers. comm.*). While members of the *Myoporum* genus often tend to be quite long-lived, the possible requirement of Pale *Myoporum* for some form of disturbance suggests it may be relatively short-lived. The small roadside population at Boinka was observed to be in decline in 1998 since its first discovery in the late 1980s. A number of plants were already dead and the remaining plants were senescent. This supported the theory that the species appears to be relatively short-lived (Eichler & Walsh 1999).

Conservation status

National conservation status

Pale *Myoporum* is not listed under the Environment Protection and Biodiversity Conservation Act 1999.

Victorian conservation status

Pale *Myoporum* is currently classified as 'Endangered' in Victoria (DSE 2003).

Pale *Myoporum* has been listed under the Flora and Fauna Guarantee Act 1988.

Decline and threats

Pale *Myoporum* is threatened in Victoria because of its extreme rarity and low abundance. The first population discovered was recorded in the late 1980s, with two voucher specimens lodged at the National Herbarium. Notes with one referred to a few dozen plants occurring along a strip of roadside of about 900m long, while the other estimate referred to about 100 plants in this area including one plant growing on the opposite side of the highway along the rail reserve. Periodic monitoring of this population has indicated a significant decline. Monitoring in 1998 indicated the plants were in poor health, although new growth was observed in 1999 (Eichler and Walsh 1999). In 2000, only three plants were recorded.

The second population consists of one plant only. The plant is in poor condition due to being run over (circa late 2000) by agricultural machinery (DSE file note).

Both populations occur along roadsides which are potentially threatened by roadside management activities, competition with weed species and off-road vehicular traffic. While some form of disturbance may be beneficial to the species, the lack of information on its ecological requirements means that an appropriate management regime is not currently known.

Existing conservation measures

- The Boinka population has been monitored infrequently by DSE staff and the Field Naturalists' Club of Victoria since its discovery in 1989.
- Cuttings were collected for propagation from the three Boinka plants in 1998 and 1999 by the Royal Botanic Gardens & National Herbarium of Victoria, and in 1999 by Mildura DSE. The latter attempt was successful and 51 plants were planted in July 2000 along the road reserve in the vicinity of the Boinka population, and on crown land on the opposite side of the highway. Some local landholders have been made aware of the significance of the population and were involved in site preparation, planting and initial watering of the propagated plants. Eleven plants were distributed to two landowners in the Boinka region for planting at their properties. By January 2001, 47 of the planted plants at Boinka had survived, and 4 of the landowners' plants had survived. By the end of March 2001, the planted plants at Boinka had been reduced to 33. The total of 18 deaths are certainly attributable to an extremely hot and dry summer season.
- Cuttings were taken from the propagated plants whilst in the nursery and a further 40 plants were planted at the Boinka site in March 2001. Fifteen plants were supplied to the Australian Inland Botanic Gardens (at Buronga near Mildura) in March 2001. This *ex situ* population will be maintained for access to propagation material. Three plants have been planted at the Boinka Cemetery (March 2001). A further eight plants have been planted into private gardens in the Boinka region to safeguard local material of this species.

Conservation objectives

Long term objective

To ensure that the Pale *Myoporum* can survive, flourish and retain its potential for evolutionary development in the wild.

Objective of this Action Statement

Maintain the existing four original plants and maintain the Boinka population at or above 50 individuals into 2006.

Intended management actions

The intended management actions listed below are further elaborated in DSE's Actions for Biodiversity Conservation database. Detailed information about the actions and locations, including priorities, is held in this system and will be provided annually to land managers and other authorities.

1. Liaise with, and provide written information to, VicRoads, Mildura Rural City Council and adjoining landholders to ensure that they and their contractors are aware of the location and significance of these populations.

Responsibility: DSE (NW Region)

2. Ensure that the sites are protected within the planning scheme via the use of a Vegetation Protection Overlay, and in the Roadside Conservation and Fire Management Plans.

Responsibility: DSE (NW Region), Mildura Rural City Council

3. Incorporate actions to protect, enhance and restore Pale Myoporum habitat into the Mallee Regional Catchment Strategy or its subordinate strategies via Biodiversity Action Plans. Implement these actions, according to priority, as resources become available, in conjunction with other agencies, community groups and landholders.

Responsibility: Mallee Catchment Management Authority

4. Erect 'Rare Plant' signs at the sites.

Responsibility: VicRoads; Mildura Rural City Council

5. Monitor the existing populations annually.

Responsibility: VicRoads; Mildura Rural City Council

6. Ensure that an *ex situ* collection is maintained at the Inland Botanic Gardens as a resource for cutting material and seed.

Responsibility: DSE (NW Region)

7. Investigate aspects of the species' life history and its ecological requirements for successful establishment and persistence using propagated material.

Responsibility: DSE (NW Region)

8. Investigate the genetic composition of populations across the species' range primarily to determine whether the Victorian population is viable long-term or distinct from non-Victorian populations.

Responsibility: DSE (NW Region)

9. Maintain contact with relevant authorities in South Australia including the State Herbarium of South Australia to ensure that any new information concerning the species' habitat requirements and ecology is obtained to enable appropriate management of the species in Victoria.

Responsibility: DSE (NW Region)

References

- DSE (2003) *Advisory List of Rare or Threatened Plants in Victoria - 2003*. Department of Sustainability and Environment: East Melbourne. (available on the DSE web site)
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- Walsh, N. G. & Entwisle, T. J. [eds.] (1999) *Flora of Victoria, Volume 4, Dicotyledons: Cornaceae to Asteraceae*. Inkata Press: Melbourne.

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Further information can be obtained from Department of Sustainability and Environment Customer Service Centre on 136 186.

Flora and Fauna Guarantee Action Statements are available from the Department of Sustainability and Environment website: <http://www.dse.vic.gov.au>

This Action Statement has been prepared under section 19 of the Flora and Fauna Guarantee Act 1988 under delegation from Chloe Munro, Secretary, Department of Natural Resources and Environment, October 2002.

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Published by the Department of Sustainability and Environment, Victoria. 8 Nicholson Street, East Melbourne, Victoria 3002 Australia

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ISSN 1448-9902