

Action Statement

Flora and Fauna Guarantee Act 1988

No. 207

Bent Pomaderris

Pomaderris sericea

This Action Statement is based on the draft national Recovery Plan prepared for this species by DSE under contract to the Australian Government Department of the Environment, Water, Heritage and the Arts.

Description

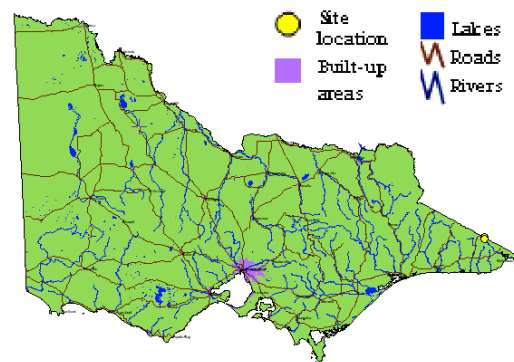
Bent Pomaderris (*Pomaderris sericea*) is a deciduous shrub that grows to a height of about 2 m. The branchlets are covered with golden hairs which mask star-shaped hairs on the under-surface of the leaves. Its colour and the masking of the star-shaped hairs distinguish this plant from other *Pomaderris* species. The leaves are alternate, narrow and oval-shaped, 6–30 mm long and 5–10 mm wide. The upper surface of the leaves is smooth and the margins are recurved. The hairlessness of the upper surface of the leaf, and leaf shape, size and width-to-length ratio also help to distinguish this species from other Victorian *Pomaderris* species (Walsh & Entwisle 1999). Reasonably dense groups of flowers form approximately pyramid-shaped inflorescences about 1–3 cm in length and width. The flowers are small and yellow with an outer surface covered in shaggy, grey to golden, long soft hairs, overlying star-shaped hairs. The flower stalks are 1–2 mm long (Walsh & Entwisle 1999). The flower has no petals, but has a floral tube 0.8–1 mm in length and sepals 1.7–2.1 mm long (Walsh & Entwisle 1999). The inferior ovary is covered by simple hairs on its summit. Flowering occurs in October.

Distribution

The single Victorian population of Bent Pomaderris occurs within the flood zone of the upper Genoa River in the far east of the state (Wakefield 1951; Walsh & Entwisle 1999). In New South Wales, a population occurs in Morton National Park, on the south coast, and another in Wollemi National Park, about 150 km north-west of Sydney.

Abundance

It is estimated that less than 50 individuals exist in Victoria. These plants occur in a single population.



Distribution in Victoria

(Flora Information System DSE 2007)

The extent of range and abundance of Bent Pomaderris prior to European settlement is unknown.

Important populations

The sole Victorian population of Bent Pomaderris occurs near the Genoa River in Coopracambra National Park.

Habitat

The Victorian population of Bent Pomaderris grows in crevices between sandstone slabs within the flood zone of the upper Genoa River. The surrounding vegetation is riparian scrub, and

associated species include Common Fringe-myrtle (*Calytrix tetragona*), Swamp Grevillea (*Grevillea patulifolia*), Narrow-leaf Pomaderris (*Pomaderris angustifolia*) and Prunus Pomaderris (*P. prunifolia*).

Life history and ecology

There have been no targeted studies of the biology or ecology of this species. It is not known if this species may require disturbance for recruitment.

Conservation status

National conservation status

Bent Pomaderris is listed as vulnerable under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

Victorian conservation status

Bent Pomaderris is listed as threatened under the Victorian *Flora and Fauna Guarantee Act 1988*.

It is considered vulnerable in Victoria according to DSE's *Advisory List of Rare or Threatened Plants in Victoria - 2005* (DSE 2005).

Decline and threats

Current threats/perceived risk

Weed invasion

High: Poplar (*Populus nigra*) and Basket Willow (*Salix rubens*) are becoming increasingly well established near the Genoa River population, and could conceivably exclude that population. Basket Willow is a Weed of National Significance.

Potential threats/perceived risk

Small population size

Moderate: The small estimated population size of Bent Pomaderris at Genoa River, coupled with apparent low fecundity and possibly a requirement for disturbance (such as flooding), pose serious threats to the long-term survival of that population. Changes to the hydrology of the Genoa River may prevent important flooding events which are likely to promote recruitment.

Previous management action

- Survey of general location.
- Collection of a herbarium record.

Conservation objectives, actions and targets

Long term objective

To ensure that the Bent Pomaderris can survive, flourish and retain its potential for evolutionary development in the wild.

Specific objectives, actions and targets

The intended management actions listed below are further elaborated in DSE's Actions for Biodiversity Conservation (ABC) system. 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.

Objective 1 To increase knowledge of biology, ecology and management requirements

Action	Targets	Responsible
1. Acquire baseline population data, including: identification of the area and extent of the population; estimates of the number, size and structure of the population; and inference or estimation of population change.	<ul style="list-style-type: none"> ▪ Updated records including conservation status on all state databases (Flora Information System, VrotPop and Herbarium). ▪ Populations accurately mapped. 	Parks Victoria DSE
2. Assess habitat characteristics and/or condition. Accurately survey known habitat in spring, and collect and analyse floristic and environmental information relevant to community ecology and condition.	<ul style="list-style-type: none"> ▪ Core habitat mapped. ▪ Ecological requirements for the completion of essential life history stages, recruitment and dispersal identified at known sites. 	Parks Victoria DSE
3. Conduct survey to locate suitable habitat. Identify and survey potential / historical habitat, using ecological and bioclimatic information that may indicate habitat preference.	<ul style="list-style-type: none"> ▪ Predictive model for potential habitat developed and tested. 	Parks Victoria DSE

4. Undertake research to identify key biological functions. Evaluate current reproductive / regenerative status, seed bank status and longevity, fecundity and recruitment levels. Determine seed germination requirements by conducting laboratory and field trials aimed to identify key stimuli.	<ul style="list-style-type: none"> ▪ Seed bank/regenerative potential quantified for target populations. ▪ Stimuli for recruitment/regeneration identified. ▪ Management strategies identified to maintain, enhance or restore regenerative processes fundamental to reproduction and survival. 	Parks Victoria DSE
5. Analyse population trends. Measure population trends and responses against recovery actions by collecting demographic information including recruitment and mortality, timing of life history stages and morphological data. Collate, analyse and report on census data and compare with management histories.	<ul style="list-style-type: none"> ▪ Techniques for monitoring developed and implemented. ▪ Census data for the Genoa population collected. ▪ Target population dynamics determined. 	Parks Victoria DSE
Objective II To improve the condition of habitat		
Action	Targets	Responsible
6. Manage environmental weeds. Identify and control threats from pest plants, using careful application of herbicide, cut and paint method and/or hand removal of weeds.	<ul style="list-style-type: none"> ▪ Measurable seedling recruitment or vegetative regeneration and measurable reduction in plant mortality at Genoa River site. 	Parks Victoria
Objective III To secure populations or habitat from potentially incompatible land use or catastrophic loss.		
Action	Targets	Responsible
7. Establish cultivated plants <i>ex situ</i> to safeguard from the unforeseen destruction of the wild population.	<ul style="list-style-type: none"> ▪ Effective propagation and cultivation techniques developed. ▪ At least 15 mature plants in cultivation. 	DSE Royal Botanic Gardens
Objective IV To increase the number of populations or individuals		
Action	Targets	Responsible
8. Store reproductive material. Establish a seed bank.	<ul style="list-style-type: none"> ▪ Long-term storage facility identified. ▪ Seed from target populations in storage. 	DSE Royal Botanic Gardens
9. Determine seed viability.	<ul style="list-style-type: none"> ▪ Seed viability determined. 	Royal Botanic Gardens
Objective V To increase community awareness and support		
Action	Targets	Responsible
10. Involve community groups and volunteers in recovery activities.	<ul style="list-style-type: none"> ▪ Opportunities for involvement identified, promoted and supported. 	DSE

References

- DSE (2005) *Advisory List of Rare or Threatened Plants in Victoria - 2005*. Department of Sustainability and Environment, East Melbourne, Victoria.
- Wakefield, N.A. (1951) New species of *Pomaderris*, *The Victorian Naturalist*, **68**(8):140-143.
- Walsh, N.G. & Entwisle, T.J. (1999) *Flora of Victoria, Vol 4: Dicotyledons: Cornaceae to Asteraceae*, Inkata Press, Melbourne.

This Action Statement has been prepared under section 19 of the Flora and Fauna Guarantee Act 1988 under delegation from Mr Peter Harris, Secretary, Department of Sustainability and Environment, July 2008.

Published by the Victorian Government Department of Sustainability and Environment

Melbourne, July 2009

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Authorised by the Victorian Government, 8 Nicholson Street, East Melbourne.

ISSN 1448-9902

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