

Action Statement

Flora and Fauna Guarantee Act 1988

No. 236

Snowy River Westringia *Westringia cremnophila*

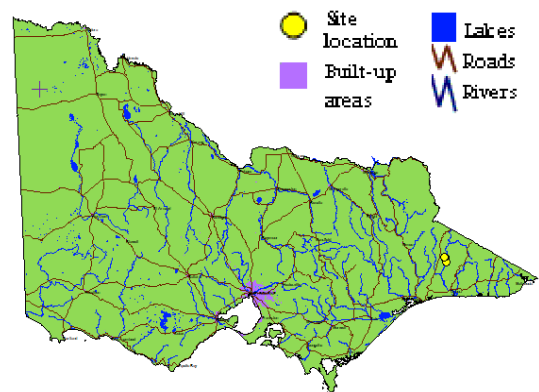
This Action Statement is based on a draft Recovery Plan prepared for this species by DSE under contract to the Australian Government Department of the Environment, Water, Heritage and the Arts.

Description

Snowy River Westringia (*Westringia cremnophila*) is a low spreading shrub which varies in height from 0.1 to 0.5 m (Walsh & Entwisle 1999). The stems are covered in slightly appressed white hairs, and larger stems develop a thick furrowed bark (Walsh & Entwisle 1999). The leaves are barely oblong, almost linear, 10-20 mm long and 1-2 mm wide. They occur in pairs, or sets of three to four, in whorls along the stems (Wakefield 1957). The ends of the leaves are generally rounded but can be pointed. The leaf margins are entire and curl under at the edges. The leaves are covered by silky hairs when they are young, but these quickly disappear with growth, leaving a slightly rough surface (Walsh & Entwisle 1999). Inflorescences grow as racemes with one flower per stalk. The flower is composed of a 10 mm long, mauve tinged white corolla which has yellow-brown dots in its throat, surrounded by a calyx with five sharply pointed lobes (Walsh & Entwisle 1999). The lobes are 0.6-0.7 times the length of the tube (Walsh & Entwisle 1999). The outer surface of the calyx is very hairy. *Westringia cremnophila* has a distinctly spreading habit. It can be distinguished from other *Westringia* species during flowering by the length of its tubular-shaped corollas and the length of its calyx lobes in relation to the tubes (Walsh & Entwisle 1999).

Distribution

Westringia cremnophila is only found growing on cliffs and in rock crevices with little soil above the gorge tract of the Snowy River, east of Butchers Ridge (Walsh & Entwisle 1999).



Distribution in Victoria
(Flora Information System DSE 2007)

Abundance

The single known population of *Westringia cremnophila* occurs in the Snowy River National Park at Tulach Ard Gorge. Herbarium collections by Wakefield from 1957 mention local abundances at 100 feet (~ 30 m) above the river and on nearby cliffs, as well as at similar locations on the eastern side of the river. Wakefield described *W. cremnophila* as being plentiful at this site. Following observations in 1988, N. Walsh reported that about a dozen plants were growing on the northern face of a cliff in Tulach Ard Gorge on sheer, near vertical rock, upstream of Museum Spur. Walsh (pers. comm.) predicted that more

plants may occur upstream near the area likely to be the original Wakefield collection site. In 2002, N. Walsh reported four plants which he suspected to form the lower and more southerly extent of a larger population. Cuttings have been collected from the wild population and there are approximately 20 plants now growing at the Royal Botanic Gardens.

Habitat

The single known population of *Westringia cremnophila* occurs in rocky outcrop open shrubland associated with Shrubby Platysace (*Platysace lanceolata*), Violet Daisy-bush (*Olearia iodochroa*), Digger's Speedwell (*Derwentia perfoliata*), Common Fringe-myrtle (*Calytrix tetragona*) and Tall Baeckea (*Babingtonia pluriflora*). Plants occur on narrow ledges and between crevices on an extremely exposed, nearly sheer rock face. The rock face has an east to north-north-easterly aspect and is approximately 140 m above sea level.

Life history and ecology

Westringia cremnophila may be threatened by rock fall, but the known population is remote, located within secure tenure, and unlikely to be otherwise threatened.

Conservation status

National conservation status

Snowy River *Westringia* is listed as vulnerable under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

Victorian conservation status

Snowy River *Westringia* 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 Vascular Plants in Victoria - 2005* (DSE 2005).

Potentially threatening processes

Rock fall

The single known population may be damaged by occasional rock falls. However, the frequency of rock falls in this area is unknown.

Grazing

Grazing by introduced herbivores is possible, although it may be precluded by the steep terrain. Grazing is likely to be more severe during dry years.

Previous management action

- Location surveyed and plants counted.
- A cutting was collected and approximately 20 plants have been propagated at the Royal Botanic Gardens.

Conservation Objectives and Actions

Long term objective

To ensure that the Snowy River *Westringia* 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 I To increase knowledge of biology, ecology and management requirements

Action	Targets	Responsible
1. Acquire baseline population data. Conduct detailed field and desk top surveys 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 on all state databases (Flora Information System, VROTPop and Herbarium). ▪ Population accurately mapped. 	DSE
2. Assess habitat characteristics and/or condition. Accurately survey known habitat and collect and analyse floristic and environmental information relevant to	<ul style="list-style-type: none"> ▪ Ecological requirements identified for the completion of essential life history stages. 	DSE

community ecology and condition.	<ul style="list-style-type: none"> Recruitment and dispersal identified at known sites. Core habitat mapped. 	
3. Conduct survey to locate suitable habitat Identify and survey potential habitat, using ecological and bioclimatic information that may indicate habitat preference	<ul style="list-style-type: none"> Surveys of potential habitat completed. 	DSE
4. Undertake research to identify key biological functions. Evaluate current reproductive / regenerative status to determine 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. Stimuli for recruitment identified. 	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 collected. Population growth rates determined. Population Viability Analysis completed. 	DSE

Objective II To secure populations or habitat from potentially incompatible land use or catastrophic loss.

<i>Action</i>	<i>Targets</i>	<i>Responsible</i>
6. Establish cultivated plants <i>ex situ</i> to safeguard from the unforeseen destruction of the wild population	<ul style="list-style-type: none"> Development of effective propagation and cultivation techniques. At least 30 mature plants in cultivation. 	Royal Botanic Gardens
7. Liaise with government agencies. Ensure that information and advice about the recovery of Snowy River <i>Westringia</i> has been provided to Parks Victoria.	<ul style="list-style-type: none"> Parks Victoria staff are aware of the species and its management needs. 	DSE

Objective III To increase the number of populations or individuals

<i>Action</i>	<i>Targets</i>	<i>Responsible</i>
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. 	Royal Botanic Gardens
9. Determine seed viability.	<ul style="list-style-type: none"> Seed viability determined. 	Royal Botanic Gardens

References

- DNRE (2001) *DNRE Flora Information System 2001*, Department of Natural Resources and Environment.
- DSE (2005) *Advisory List of Rare or Threatened Vascular Plants in Victoria - 2005*. Department of Sustainability and Environment, East Melbourne, Victoria.
- Wakefield, N.A. (1957) Flora of Victoria: New Species and other Additions-12, *The Victorian Naturalist*, 73(11): 186.
- Walsh, N.G. & Entwisle, T.J. (Eds) (1999) *Flora of Victoria: Volume 4. Dicotyledons Cornaceae to Asteraceae*, Inkata Press, Melbourne.

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