

Approved Conservation Advice  
(s266B of the *Environment Protection and Biodiversity Conservation Act 1999*)

**Approved Conservation Advice for**  
***Verticordia plumosa* var. *vassensis* (Vasse Featherflower)**

This Conservation Advice has been developed based on the best available information at the time this conservation advice was approved; this includes any existing plans, records or management prescriptions for this species.

**Description**

*Verticordia plumosa* var. *vassensis*, Family Myrtaceae, commonly known as Vasse Featherflower, is a shrub which grows up to 1 m tall and 1 m wide. The needle-like leaves are 3–7 mm long. Umbrella-like groups of pale to deep pinkish-mauve or occasionally white, honey-scented flowers can be found on the plants from spring through to autumn (October to February) (Brown et al., 1998). Vasse Featherflower regenerates from seed following fire and soil disturbance (Brown et al., 1998).

**Conservation Status**

Vasse Featherflower is listed as **endangered**. This species is eligible for listing as endangered under the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) (EPBC Act) as, prior to the commencement of the EPBC Act, it was listed as endangered under Schedule 1 of the *Endangered Species Protection Act 1992* (Cwlth). Vasse Featherflower is also listed as rare under the *Wildlife Conservation Act 1950* (Western Australia) and is on the *Wildlife Conservation (Rare Flora) Notice 2006* (Western Australia).

**Distribution and Habitat**

Vasse Featherflower is known from 13 locations near Busselton in south-west Western Australia (DEC, 2007). This species' distribution is severely fragmented and very restricted, with known subpopulations occurring over a large geographic range in isolated pockets of remnant vegetation (DEC, 2007). Most populations are located within road, rail and recreational reserves or on private property, with only one part of a population occurring within a nature reserve. The total population of Vasse Featherflower has been estimated at 3200 mature plants, although this estimate relies on 10 year old survey counts and may not be accurate (DEC, 2007).

Vasse Featherflower grows on a variety of sands and swampy clay soils in mostly winter-wet flats and depressions. It grows with sedges and rushes or in low heath and is often found on degraded, grassy-weed infested road verges (Brown et al., 1998; Williams et al., 2001). This species occurs in the South West (Western Australia) Natural Resource Management region.

The distribution of this species overlaps with the "Shrublands on Southern Swan Coastal Plain Ironstones" EPBC Act-listed threatened ecological community.

**Threats**

The main identified threats to Vasse Featherflower are habitat degradation due to horse riding (such as trampling) and infrastructure maintenance (such as road, firebreak, drainage, fence, and powerline maintenance); invasive weeds; inappropriate fire regimes; and dieback caused by *Phytophthora cinnamomi* (Williams et al., 2001). The species requires occasional fire for recruitment from soil stored seed, but too frequent fires during the flowering and seeding phase (November to February) may be detrimental to the long term survival of the species.

### **Research Priorities**

Research priorities that would inform future regional and local priority actions include:

- Design and implement a monitoring program or, if appropriate, support and enhance existing programs.
- More precisely assess population size, distribution, ecological requirements, and the relative impacts of threatening processes.
- Undertake survey work in suitable habitat and potential habitat to locate any additional populations/occurrences/remnants.
- If necessary, undertake seed germination and/or vegetative propagation trials to determine the requirements for successful establishment.

### **Regional and Local Priority Actions**

The following priority recovery and threat abatement actions can be done to support the recovery of Vasse Featherflower.

#### **Habitat Loss, Disturbance and Modification**

- Monitor known populations to identify key threats.
- Monitor the progress of recovery, including the effectiveness of management actions and the need to adapt them if necessary
- Identify sites of high conservation priority.
- Ensure road widening and other infrastructure maintenance activities (such as firebreak, drainage, powerline maintenance, and fencing work) involving substrate or vegetation disturbance in areas where Vasse Featherflower occurs, do not impact on known populations.
- Control access routes to suitably constrain public access to known sites on public land.
- Minimise adverse impacts from changed land use at known sites.
- Investigate formal conservation arrangements, management agreements and covenants on private land, and for crown and private land investigate inclusion in reserve tenure if possible.

#### **Invasive Weeds**

- Develop and implement a management plan for the control of weeds in the local region.
- Ensure chemicals or other mechanisms used to eradicate weeds do not have a significant adverse impact on Vasse Featherflower.

#### **Trampling, Browsing or Grazing**

- Initiate measures to restrict trampling by stock at known sites.

#### **Fire**

- Develop and implement a suitable fire management strategy for Vasse Featherflower.
- Provide maps of known occurrences to local and state Rural Fire Services and seek inclusion of mitigative measures in bush fire risk management plans, risk register and/or operation maps.

#### **Diseases, Fungi and Parasites**

- Implement the Threat Abatement Plan (EA, 2001) to protect against outbreaks of dieback due to *Phytophthora cinnamomi*.
- If necessary, implement appropriate management actions to minimise the adverse impacts of existing *Phytophthora cinnamomi* infestations.

#### **Conservation Information**

- Raise awareness of the Vasse Featherflower within the local community, particularly users of the public lands on which Vasse Featherflower occurs, landowners, land managers and relevant authorities.

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### Establishing Additional Populations

- Undertake appropriate seed collection and storage.
- Investigate options for linking, enhancing or establishing additional populations.
- Implement national translocation protocols (Vallee et al., 2004) if establishing additional populations is considered necessary and feasible.

This list does not necessarily encompass all actions that may be of benefit to Vasse Featherflower, but highlights those that are considered to be of highest priority at the time of preparing the conservation advice.

### Existing Plans/Management Prescriptions that are Relevant to the Species

- Threat Abatement Plan for Dieback Caused by the Root-Rot Fungus *Phytophthora cinnamomi* (EA, 2001), as this species may be susceptible to this fungus, and
- Western Australia Wildlife Program No. 33: Declared rare and poorly known flora in the Central Forest Region (Williams et al., 2001).

These prescriptions were current at the time of publishing; please refer to the relevant agency's website for any updated versions.

### **Information Sources:**

Brown A, Thomson-Dans C & Marchant N (Eds.) 1998, *Western Australia's Threatened Flora*, Department of Conservation and Land Management, Western Australia.

Department of Environment and Conservation (DEC) 2007, *Records held in DEC's Declared Flora Database and rare flora files*, Department of Environment and Conservation, Perth.

Environment Australia (EA) 2001, *Threat Abatement Plan For Dieback caused by the root-rot fungus Phytophthora cinnamomi*, Environment Australia, viewed 11 March 2008, <<http://www.environment.gov.au/biodiversity/threatened/publications/tap/phytophthora/pubs/phytophthora.pdf>>.

Vallee, L, Hogbin, T, Monks, L, Makinson, B, Matthes, M & Rossetto, M 2004, *Guidelines for the Translocation of Threatened Plants in Australia* (2<sup>nd</sup> ed.), Australian Network for Plant Conservation, Canberra.

Williams, K, Horan, A, Wood, S & Webb, A 2001, *Declared rare and poorly known flora in the Central Forest Region*, Western Australian Wildlife Management Program No. 33, Department of Conservation and Land Management.