

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

**Approved Conservation Advice for  
*Daviesia speciosa* (Beautiful Daviesia)**

This Conservation Advice has been developed based on the best available information at the time this conservation advice was approved.

**Description**

*Daviesia speciosa*, Family Fabaceae, also known as Beautiful Daviesia, is a bluish-green leafless low shrub with stiff erect pungent stems. It grows to 1 m high and 2 m wide, with multiple stems arising from a woody rootstock. New stems are produced from the rootstock following disturbance. It flowers from March to June, with enlarged red pea flowers that are probably modified for bird-pollination, although fruit are apparently never produced (Crisp, 1995; Brown et al., 1998). Observations of some populations have been made over many years, but birds have not been seen visiting the flowers. Hand-pollination trials have also been conducted but the flowers pollinated did not set fruit (Schwarten, 1995).

**Conservation Status**

Beautiful Daviesia 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). Beautiful Daviesia is also listed as rare flora under the *Wildlife Conservation Act 1950* (Western Australia) and under the *Wildlife Conservation (Rare Flora) Notice 2006(2)* (Western Australia).

**Distribution and Habitat**

Beautiful Daviesia is known from five populations north-east of Eneabba, Western Australia. Its range extends over 40 km. Two populations occur within Tathra National Park and in gravel pits beside road verges near Mingenew, and there are an estimated 850 plants in total (Schwarten, 1995). The plants grow in dense low shrubland in shallow, gravelly sand over gravelly, red clay or lateritic loams. It is associated with *Acacia*, *Grevillea*, *Eremaea*, *Hakea trifurcate*, *Hibbertia*, *Calothamnus longissimus* and *Allocasuarina* (Crisp, 1985; Brown et al., 1998; Patrick, 2001; Patrick & Brown, 2001). This species occurs within the Northern Agricultural (Western Australia) Natural Resource Management Region.

The distribution of this species is not known to overlap with any EPBC Act-listed threatened ecological communities.

**Threats**

The main identified threats to Beautiful Daviesia include roadwork or widening; construction of fire-breaks; gravel extraction and frequent fire. The plant family containing this species is considered moderately susceptible to dieback caused by *Phytophthora cinnamomi* (Wills & Keighery, 1994).

**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.
- Continue surveys in suitable habitat and potential habitat to locate any additional populations/occurrences/remnants.

- Study pollination biology and population ecology, incorporating genetic research, to determine the reasons for clonal growth and lack of fruit/seed production (Patrick, 2001).
- Conduct investigations into susceptibility of this species to dieback caused by *Phytophthora cinnamomi*.

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

The following regional and local priority recovery and threat abatement actions can be done to support the recovery of Beautiful Daviesia.

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

- Identify populations of high conservation priority.
- Monitor known populations to identify key threats.
- Manage threats to areas of vegetation that contain populations/occurrences of Beautiful Daviesia.
- Ensure road widening, gravel extraction and maintenance activities (or other infrastructure or development activities as appropriate) in areas where Beautiful Daviesia occurs do not adversely impact on known populations.
- Control access routes to suitably constrain public access to known sites on public land, particularly in Tathra National Park.
- Investigate formal conservation arrangements such as the use of covenants, conservation agreements or inclusion in reserve tenure.

#### **Fire**

- Develop and implement a suitable fire management strategy for Beautiful Daviesia.
- Identify appropriate intensity and interval of fire to promote regeneration from rootstocks.
- 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, especially in relation to the development of fire trails,

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

- Implement suitable hygiene protocols to protect known populations from further outbreaks of dieback caused by *Phytophthora cinnamomi*.
- If necessary, implement appropriate management actions to minimise the adverse impacts of existing *Phytophthora cinnamomi* infestations on Beautiful Daviesia.

#### **Enable Recovery of Additional Sites and/or Populations**

- Investigate options for linking, enhancing or establishing additional populations.
- Undertake propagation trials to enhance likelihood of successful establishment.
- Implement national translocation protocols (Vallee et al., 2004) if establishing additional populations is considered necessary and feasible.
- Undertake appropriate germplasm collection and storage.

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

### **Information Sources:**

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This Conservation Advice was approved by the Minister / Delegate of the Minister on 3/7/2008

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