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>AM02402

Beautiful daviesia

Endangered flora of Western Australia

If you think you've seen this plant, please call the Department of Environment and Conservation's (DEC's) Geraldton District on (08) 9921 5955 or Moora District on (08) 9652 1911.

Beautiful daviesia was first collected by Charles Gardner in 1958 from a population near Mingenew. Subsequently, the known range of the species was extended with the discovery of populations near Eneabba as well as an increase in the number of populations located near Mingenew. However, despite further survey in recent years only one new population has been discovered. Currently the species is known from seven populations and about 1,000 plants.

Long-term monitoring of populations, including study by Charles Chapman over a 20-year period, has found that despite abundant flowering every year, no pods have ever been produced. This may be due to pollen infertility, or perhaps a lack of suitable pollinators. The species is thought to be bird pollinated, however, no birds have been observed on the flowers.

Beautiful daviesia is currently listed as rare flora under the Western Australian *Wildlife Conservation Act 1950* and is ranked as endangered due to the severe fragmentation of the populations, as well as a continuing decline in plant numbers noted across several of the populations.



Pea-shaped flowers of the beautiful daviesia. Note the nodding arrangement of the flowers held on long stalks. Photo – Gemma Phelan



The distinctive blue-green stiff, erect, leafless branches of the beautiful daviesia. Photo – Gemma Phelan

Recovery of a species

DEC is committed to ensuring that critically endangered taxa do not become extinct in the wild. This is done through the preparation of a Recovery Plan or Interim Recovery Plan (IRP), which outline the recovery actions that are required to urgently address those threatening processes most affecting the ongoing survival of the threatened species in the wild and begin the recovery process.

IRPs are prepared by DEC and implemented by regional or district recovery teams consisting of representatives from DEC, Botanic Gardens and Parks Authority, community groups, private landowners, local shires and various government organisations.











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A number of the populations are at risk due to being in narrow road verges. The species is listed as endangered under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999.*

Beautiful daviesia is easily recognised, even out of flowering season. It is a leafless shrub, one metre high by two metres wide, with stiff, erect, prickly, blue-green branches, covered in a distinctive powdery film. Its large (to 2.5 centimetres long), nodding, red pea-shaped flowers, arranged in small clusters of one or two flowers on long stems, appear between March and June. Beautiful daviesia is distinguished from other Daviesia species such as the related staghorn bush (Daviesia epiphyllum), which has similar red flowers, by its rounded rather than flattened stems.

The species is known to resprout from a thick, spreading rootstock following disturbance, forming colonies of plants as a result.

Beautiful daviesia is found in dense shrub land with *Grevillea, Eremaea, Hakea trifurcata, Hibbertia, Calothamnus longissimus* and *Allocasuarina* on lateritic loams, usually high in the landscape.

DEC has set up the Geraldton and Moora districts threatened flora recovery teams to coordinate actions that address the greatest threats to the survival of the species in the wild.

IRPs will be deemed a success if the number of individuals within the population and/or the number of populations have increased.

This project is funded by the Australian and State governments' investment through the Natural Heritage Trust, administered in the Midwest Region by the Northern Agricultural Catchments Council.



Flowering beautiful daviesia shrubs within a narrow roadside habitat. Photo – Gemma Phelan

The main threats to beautiful daviesia are the small number of populations, lack of recruitment from seed, inappropriate fire regimes and mechanical disturbance.

DEC is keen to know of new occurrences of beautiful daviesia.

If you are unable to contact the district offices, please phone DEC's Species and Communities Branch on (08) 9334 0455.

Recovery actions that have been, or will be, progressively implemented to protect the species include:

- · liaison with land managers and landowners;
- surveys for new populations;
- long-term protection of habitat;
- promotion of the species within the community;
- ongoing monitoring of population numbers and threats;
- investigation of fire requirements, and development and implementation of a fire management strategy;
- protection of plants from mechanical disturbance;
- installation of rare flora markers to ensure road workers in the vicinity of the plants are aware of the species and its significance;
- research on the pollination biology and population ecology of the species to determine reasons for lack of seed production.