

Butterfly-leaved gastrolobium

E n d a n g e r e d F l o r a o f W e s t e r n A u s t r a l i a

If you think you've seen this plant, please call the Department of Environment and Conservation's (DEC's) Busselton District on (08) 9752 1677.

Gastrolobium papilio has distinctive leaves that are shaped like butterfly's wings, hence the name 'butterfly gastrolobium'. The species is a dense shrub that grows up to 1.5 m across. Its leaves are up to 2 cm long, and are a truncated wing shape with a rigid, sharp point. The flowers are pale red to cream and are held in loose inflorescences. They are produced from September to October.

Butterfly-leaved gastrolobium was first collected from the base of the Whicher Range by botanist Greg Keighery in November 1991. Despite intensive survey of the area where the species grows (as part of the Swan Coastal Plain survey), no other populations of this attractive plant have been found.

The species-rich plant community in which butterfly-leaved gastrolobium occurs is a winter-wet area of shrubland over shallow red clay over ironstone. These ironstone soils are highly restricted in distribution and the plant community that occurs on them was ranked as a Critically Endangered Ecological Community in 1995. There are also six additional Declared Rare Flora, three of which are ranked Critically Endangered, that occur on the ironstone soils in the vicinity of butterfly-leaved gastrolobium.

A hot fire burnt through the population in 1993 and resulted in the death of some of the mature individuals. Some recruitment has since occurred from seed and rootstock.

Dieback disease caused by the plant pathogen *Phytophthora cinnamomi* is a threat to butterfly-leaved gastrolobium. The disease is known to occur immediately uphill of, and adjacent to, the species. Laboratory testing of the species' susceptibility to the disease indicates some resistance. However, tests were performed only on juvenile plants and under laboratory conditions. The resistance of more mature plants and those in the wild may differ from plants under controlled conditions. Staff from DEC are spraying the site with phosphite to attempt to control the disease and prevent it from impacting on the only known population of butterfly-leaved gastrolobium.

Butterfly-leaved gastrolobium was ranked as Critically Endangered in 1998 and DEC, through the direction of the South West Region Threatened Flora and Communities Recovery Team, has been addressing the most threatening factors affecting its survival in the wild (see overleaf).



Pale red to cream flowers of butterfly-leaved gastrolobium appear from September to October. Photo – Andrew Brown

Butterfly-leaved gastrolobium is currently known from a single locality and DEC is eager to hear of any other populations.

If unable to contact the district office on the above number please contact DEC's Wildlife Branch on (08) 9334 0422.

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 outlines the recovery actions that are required to urgently address those threatening processes most affecting the ongoing survival of threatened taxa 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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Recovery actions that are being implemented are:

Protection from current threats: The development of a fire protection and response plan to protect the species from inappropriate fire regimes; the maintenance of dieback hygiene; controlling the impact of dieback at the site by phosphite spraying; and regular monitoring of the health of the population.

Protection from future threats: These include the collection and storage of seed; the maintenance of live plants away from the wild (ie. in botanic gardens); conducting more surveys; researching the biology and ecology of butterfly-leaved gastrolobium; enhancing plant numbers by direct propagation and translocation techniques; and ensuring that relevant authorities, land owners and DEC personnel are aware of its presence and the need to protect it, and that all are familiar with the threatening processes identified in the Interim Recovery Plan.

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

This poster is sponsored by the Endangered Species Program of the Natural Heritage Trust.



Butterfly wing-shaped leaves distinguish this species. Photo – Meredith Spencer



Bushy habit of butterfly-leaved gastrolobium. Photo – Meredith Spencer



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