



FLORA & FAUNA
GUARANTEE

FLORA AND FAUNA GUARANTEE - SCIENTIFIC ADVISORY COMMITTEE

FINAL RECOMMENDATION ON A NOMINATION FOR LISTING

Bossiaea vombata J.H. Ross – Wombat Bossiaea

Date of receipt of nomination: 21 July 2016
Date of preliminary recommendation: 21 November 2016
Date of final recommendation: 16 March 2017

File No.: FF/39/6485

Validity: The nomination is for a valid item.

Prescribed Information: The prescribed information was provided.

Name of the Nominator is adequately provided.

Name of the Item is adequately provided.

The nominated taxon is accepted by the Scientific Advisory Committee (SAC) as a valid taxon because it has been formally described and it is accepted as a valid taxon by the National Herbarium of Victoria.

Bossiaea vombata is a vascular plant that forms an erect rhizomatous shrub to 1.2 m high, branches are flattened and winged. Leaves are reduced to scales 2–4 mm long and up to 1 mm wide from midrib to margin. Flowers are usually solitary and conspicuous. Flowering has been recorded in October. The apparent inability of the species to produce seed poses a risk to its long-term survival. Ross (2008) provides a description of the taxon.

Eligibility for listing as a taxon under the Flora and Fauna Guarantee

The nominated item satisfies at least one criterion of the set of criteria prepared and maintained under Section 11 of the *Flora and Fauna Guarantee Act 1988*, and stated in Schedule 1 of the *Flora and Fauna Guarantee Regulations 2011*.

Sub-criterion 1.1.2 *the reproduction or recruitment of the taxon has seriously declined or is not occurring.*

Evidence:

No germination event has been recorded for *Bossiaea vombata*. The plants appear to spread by underground rhizomes and there are few visibly distinct cohorts, indicating that germination is rare and that populations are clonal. Observations by Ross (2008) indicate that the pollen may not fully form leading to poor development of fruit.

In January 2010 of the nine fruit/pods observed by M. Ralph (Wombat Forestcare) on the Spargo-Blakeville Rd population, three fruit eventually developed with one seed each (Lisa Macaulay pers. comm.). There is little or no opportunity for gene flow between sites as they are separated by at least 3km, leading to the risk that isolated populations could be suffering from inbreeding depression.

Sub-criterion 1.2.1 *the taxon is very rare in terms of abundance or distribution.*

Evidence:

The species is restricted to Wombat State Forest where there are only six populations known and each appears to be vegetatively (clonally) reproducing. Most of the populations are within a few metres of a roadside and some on the road verge. Opportunities for dispersal and population growth are limited.

Sub-criterion 1.2.2 *The threat is currently operating and is expected to operate at a level in the future which is likely to result in the extinction of the taxon*

Evidence

Due to the location adjacent to roadsides and the small numbers of populations and the restricted area, most of the threats affecting *B. vombata* could result in its extinction. In particular, potential roadside management (e.g. drainage works, road works, fire break construction or mowing for fuel reduction), wildfire and impacts due to grazing pressure by native herbivores such as wombats and kangaroos.

Additional information

- While each colony is producing clonally the lack of young individuals away from the colonies indicates a lack of recruitment.

Advertisement for public comment

In accordance with the requirements of Section 14 of the *Flora and Fauna Guarantee Act 1988*, the preliminary recommendation was advertised for a period of at least 30 days.

The preliminary recommendation was advertised in:

'The Herald Sun'	Wednesday 14 December 2016
'The Weekly Times'	Wednesday 14 December 2016
'Ballarat Courier'	Wednesday 14 December 2016
<i>Government Gazette</i>	Thursday 15 December 2016

Submissions closed on Friday 24 February 2017.

Further evidence provided:

One submission was received on this item that identified an additional colony but no evidence was provided to warrant a change to the Scientific Advisory Committee's preliminary recommendation that the taxon is eligible for listing.

Final Recommendation of the Scientific Advisory Committee

The Scientific Advisory Committee concludes that on the evidence available the nominated item is eligible for listing in accordance with Section 11(1) of the Act because sub-criteria 1.1.2, 1.2.1 and 1.2.2 of the Flora and Fauna Guarantee Regulations 2011 have been satisfied. The SAC also concludes that no evidence exists to suggest that primary criteria 1.1 and 1.2 cannot be satisfied as a consequence of sub-criteria 1.1.2, 1.2.1 and 1.2.2 being satisfied.

The SAC therefore makes a final recommendation that the nominated item be supported for listing under the *Flora and Fauna Guarantee Act 1988*.

Reference:

Ross, J. H. (2008) A new species of *Bossiaea* (Fabaceae: *Bossiaea*) from Victoria. *Muelleria* **26**(2): 54-56.

Relevant website:

Atlas of Living Australia (Wombat *Bossiaea*) - <http://bie.ala.org.au/species/http://id.biodiversity.org.au/node/apni/2905805>


Indigenous Flora and Fauna Association (IFFA) –

<http://www.iffa.org.au/wombat-forestcare-locates-rare-wombat-leafless-bossiaea>

Wombat Forest Rare Plants Project - http://www.wombatforestcare.org.au/index.php?page=Rare_Plants_Project

Endorsement by the Convenor of the Scientific Advisory Committee

Date 5/4/2017



Prof Emeritus Barbara Evans
Convenor