

Bossiaea tasmanica



Image by James Wood

FAMILY: FABACEAE

BOTANICAL NAME: *Bossiaea tasmanica*
I.Thomps., *Muelleria* 30: 144 (2012)

COMMON NAME: Spiny bossia

COMMONWEALTH STATUS (EPBC Act):
Not Listed

TASMANIAN STATUS (TSP Act): rare

Description

Bossiaea tasmanica is a prostrate or low-growing shrub with lateral branches that end in spines. Plants may grow to a metre or more in diameter and up to 40 cm high, and are generally densely and irregularly branched. Its branches are longitudinally striate, with short appressed hairs when young. Its leaves are simple, arranged alternately along the stem, obovate to orbicular in shape, 3 to 7 mm long, 2 to 5 mm wide; the upper leaf surface is more-or-less hairless and the lower surface is slightly hairy. The pea-like flowers occur in the axils of the upper leaves; the flowers are mostly yellow with a reddish back and are up to 10 mm long. Flowering occurs in late spring and early summer. The fruit is a pod, 10 to 20 mm long and 3 to 5 mm wide, with slightly thickened margins; the pod is hairy and contains 2 to 3 light-brown seeds. (Description from Curtis & Morris 1975, Lynch 1993, Thompson 2012, and personal observation.) The species was previously known in Tasmania as *Bossiaea obcordata* (sensu Curtis & Morris 1975).

Distribution and Habitat

Bossiaea tasmanica is endemic to Tasmania (Thompson 2012). The species occurs primarily in inland areas in the State's northeast, with 'outlying' sites in the south near Tunnack and New Norfolk. It is most commonly found on well-insolated upper slopes in dry sclerophyll forest dominated by *Eucalyptus sieberi* on Ordovician-Devonian sediments (Mathinna Group), typically with a very sparse understorey. Exceptions include a site at Fehres Marsh occurs on Jurassic dolerite with *Eucalyptus delegatensis* the dominant eucalypt (Lynch 1993), and sites on Permian sediments near Tunnack and Boyer, with *Eucalyptus tenuiramis* or *Eucalyptus amygdalina* the dominant eucalypt. The altitude range of recorded sites is 60 to 670 metres above sea level, though the majority of the sites in the northeast are in the range 250 to 550 metres.

Key Sites and Populations

Boyer, Pepper Hill, Golden Gate Road, Wards Ridge, Tunnack, Fehres Marsh. There are 15 to 20 known subpopulations, with the total population thought to be in excess of twenty thousand plants. The largest known subpopulation is on private land at Boyer with > 10,000 plants dominating the low shrub layer in an area of c. 15 hectares (Plate 1), with the subpopulation at Pepper Hill consisting of c. 5,000 plants in an area of about 10 hectares.



Plate 1. *Bossiaea tasmanica* at Boyer, October 2017 (image by Richard Schahinger)

Known Reserves

Pepper Hill Regional Reserve and Spinning Gum Conservation Area, with isolated records from Castle Cary Regional Reserve and Sawpit Ridge Regional Reserve.

Ecology and Management

Bossiaea tasmanica is capable of resprouting after low intensity fire (Lynch 1993). Recruitment from a soil-stored seed-bank may occur after fire or physical disturbance, with ants reported as aiding seed dispersal (Lynch 1993). The species tends to be heavily browsed by native animals (at least for populations in the State's northeast), especially where the abundance of other palatable plants is low. Fire intervals of less than 10 years may be detrimental to the species (Lynch 1993).

Bossiaea tasmanica is known to be slightly susceptible to the exotic soil-borne plant pathogen *Phytophthora cinnamomi* in laboratory conditions (Barker 1994), with a number of management areas established to 'protect' key populations (Barker 1994, Schahinger et al. 2003).

Bees are the most likely pollination vector for this species (A. Hingston pers. comm.).

Conservation Status Assessment

Bossiaea tasmanica had been recorded from about eight to ten sites in Tasmania at the time of its listing on the TSP Act in 1995, including a site near New Norfolk dating to the 1890s (Lynch 1993). The number of known sites has doubled in the intervening

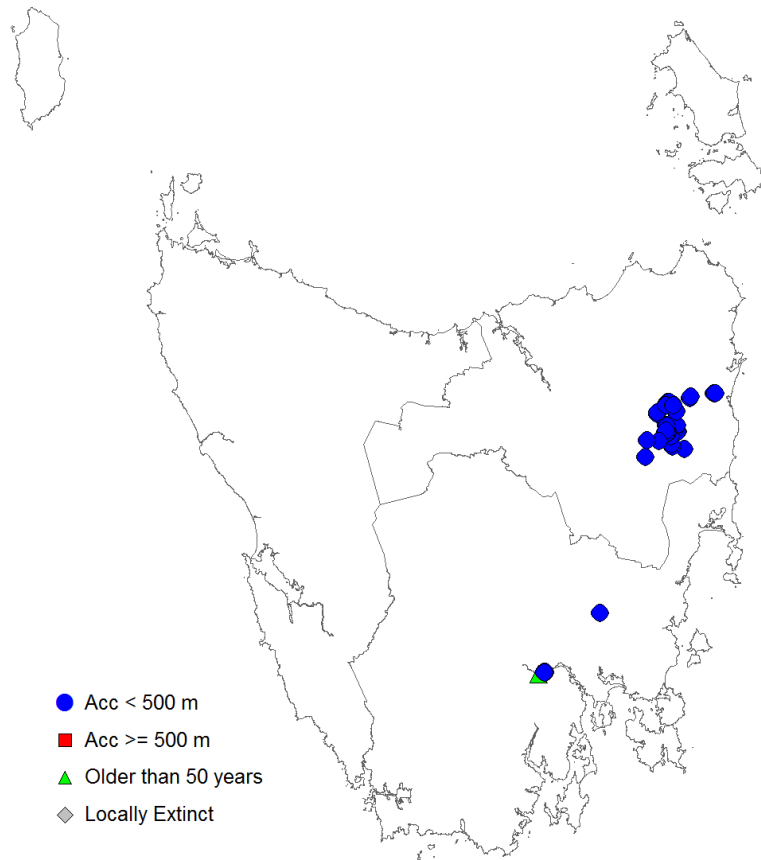
years, with the New Norfolk site re-discovered in late 2017 near Boyer, though the species' extent and abundance at several other sites remains unclear. A re-assessment of the species' conservation status may be warranted, though only after surveys have been undertaken to determine its status at sites lacking basic quantitative data.

Further Information

- Barker, P.C.J. (1994). *Phytophthora cinnamomi: the Susceptibility and Management of Selected Tasmanian Rare Species*. Forestry Tasmania and Australian Nature Conservation Agency.
- Curtis, W.M. & Morris, D.I. (1975). *The Student's Flora of Tasmania, Part 1. (Second Edition)*. Government Printer, Tasmania.
- Lynch, A.J.J. (1993). *Conservation biology and management of 16 rare or threatened FABACEAE species in Tasmania*. Australian National Parks & Wildlife Service Endangered Species Program Project No. 4, Parks & Wildlife Service, Hobart.
- Schahinger, R., Rudman, T. & Wardlaw, T. (2003). *Conservation of Tasmanian Plant Species & Communities Threatened by Phytophthora cinnamomi. Strategic Regional Plan for Tasmania*. Technical Report 03/03, Nature Conservation Branch, Department of Primary Industries, Water and Environment, Hobart.
- Thompson, I.R. (2012). A revision of eastern Australian *Bossiaea* (*Fabaceae*: *Bossiaeaceae*). *Muelleria* 30(2): 106–174.

Tasmanian Distribution

(As per Threatened Species Section records, March 2018)



1:25 000 Map Sheets

Brilliant, Colebrook, Dublin Town, Fingal, Mangana, Mathinna, New Norfolk, Rossarden, St Pauls Dome.

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www.dpipwe.tas.gov.au/threatenedspecieslists

Contact details

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Permit

It is an offence to collect, disturb, damage or destroy this species unless under permit.