

**A NEW NATIVE SPECIES RECORD FOR TASMANIA:
LOBELIA DENTATA CAV.**

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Tasmania had, at the time of publication of the 2014 edition of the *Census of the Vascular Plants of Tasmania* (de Salas & Baker 2014), ten recognised species of *Lobelia*, including the three species previously treated under *Pratia* (*L. irrigua*, *L. pedunculata* and *L. surrepens*), and the sparingly naturalised exotic *L. erinus*. The rare species *L. rhombifolia* has been recorded in isolated localities in the northeast of the State, from Beaconsfield to the Freycinet Peninsula area, as well as perhaps the northern Midlands, although there is some doubt about the reliability of the latter record (TS&MS 2014). Tasmanian Herbarium collections of this species were on loan to the National Herbarium of Victoria, and had been recently returned to Tasmania. Among the return loans were two specimens re-determined by Victorian botanist Neville Walsh as *Lobelia dentata*, a species not previously recorded in Tasmania (the specimens were previously catalogued as *L. rhombifolia*). A careful search in the authors' and the Tasmanian Herbarium collections turned up two additional specimens, from the Freycinet Peninsula and Friendly Beaches area (Figure 1). Elsewhere in Australia, *L. dentata* occurs in Victoria, where its habitat is described as "open forest on sandy or rocky substrates" (Albrecht 1999), and New South Wales, where its habitat is described as "woodland and dry sclerophyll forest on sandy soils" (Wiecek 2014).

The recognition of *Lobelia dentata* from Tasmania came shortly after surveys, in late March 2014, of the Cusicks Hill section of Freycinet National Park by staff of the Threatened Species & Marine Section (DPIPWE) and members of the Wildcare group Threatened Plants Tasmania. Plants of *Lobelia* were abundant after a hot wildfire in January 2013, and assigned to *L. rhombifolia* by surveyors prior to *L. dentata* being recognised as part of the Tasmanian flora. Whether the site also supported *L. rhombifolia* is now not known and warrants further investigation.

Lobelia dentata, like its relative *L. rhombifolia*, appears opportunistically and often profusely after fire, bulldozing, and other types of soil disturbance (Albrecht 1999). While the two species are similar looking, and occur in the same type of habitat, there are some differences that

make it relatively straightforward to tell them apart (Table 1).

There are also collections of *Lobelia rhombifolia* from the same general area of Freycinet National Park, indicating that the range of the two species overlap. The two species both respond to fire by growing and flowering profusely (Albrecht 1999; Wiecek 2014), and while there are no collections of *L. dentata* from the farther northeast of Tasmania, the possibility remains that its range is larger than currently documented. Plate 1 shows the typical post-burn habitat of *L. dentata*, as well as its flowers, and non-elongating pedicels.

Tasmanian field botanists are urged to make collections of members of the *Lobelia rhombifolia*-*L. dentata* group (under appropriate permits), during the late-summer to mid-autumn period, to better

clarify the range of the two species. *Lobelia rhombifolia* is currently listed as rare (Schedule 5) on the Tasmanian *Threatened Species Protection Act 1995* but its conservation status may warrant review due to the paucity of collections and the fact that some records may refer to *L. dentata*. The conservation status of *L. dentata* should also be considered: at present it is only known from a small number of collections from Freycinet Peninsula.

ACKNOWLEDGEMENTS

Richard Schahinger (DPIPWE) and Wildcare volunteers undertook the initial post-fire surveys at Cusicks Hill in late February 2014, and the former also mapped occurrences of *Lobelia* “*rhombifolia*”, supplied site details to MW that allowed follow-up collections of specimens to be made, and provided useful comments on a draft of this paper.

REFERENCES

Albrecht, D.E. (1999). *Subfamily Lobelioideae*. IN: *Flora of Victoria Volume 4 Dicotyledons: Cornaceae to Asteraceae* (Eds N.G. Walsh & T.J. Entwisle). Inkata Press, Melbourne.

de Salas, M.F. & Baker, M.L. (2014). *A Census of the Vascular Plants of Tasmania and Index to The Student’s Flora of Tasmania and Flora of Tasmania Online*. Tasmanian Herbarium, (Tasmanian Museum & Art Gallery), Hobart.

TS&MS (Threatened Species & Marine Section). (2014). *Notesheet: Lobelia rhombifolia (tufted lobelia)*. Threatened Species & Marine Section (Department of Primary Industries, Parks, Water & Environment), Hobart.

Wiecek, B. (2014). *Lobeliaceae*. IN: *PlantNET - The Plant Information Network System of The Royal Botanic Gardens and Domain Trust*. The Royal Botanic Gardens and Domain Trust, Sydney (<http://plantnet.rbgsyd.nsw.gov.au>).

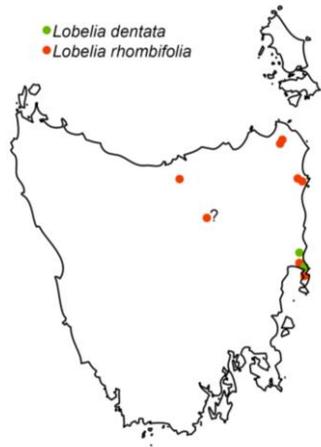


Figure 1. Tasmanian distribution of *Lobelia dentata* (green) within the broader distribution of *Lobelia rhombifolia* (red)

Table 1. Key characters separating *Lobelia dentata* and *Lobelia rhombifolia*

Character	<i>Lobelia dentata</i>	<i>Lobelia rhombifolia</i>
plant habit	erect plant to 60 cm tall; solitary stem, or few erect branches, often as a response to browsing	low plant to 35 cm tall; branching from the base
inflorescence	4–13-flowered, raceme-like	1–4-flowered cyme
pedicel	not or only slightly elongating after flowering; 5–35 mm long	elongating after flowering, as long as 120 mm
corolla	13–28 mm long	10–15 mm long



Plate 1. Habitat, habit and flower details of *Lobelia dentata*

A. Typical post-burn habitat of *Lobelia dentata* in the Cusicks Hill area of Freycinet National Park, with an overstorey of *Eucalyptus amygdalina* over *Allocasuarina* spp. and a sedgy-heathy understorey on granite-derived soils. **B.** *Lobelia dentata* growing among *Allocasuarina* branches, sheltered from browsing mammals. **C.** Detail of the erect base of the stem in *L. dentata*. In contrast, *L. rhombifolia* has a higher number of branches that are ascending, rather than erect. **D.** Erect growth and flowers of *L. dentata*. **E.** Flower of *L. dentata* with fingers for scale. **F.** Raceme-like inflorescence of *L. dentata* (in contrast, the inflorescence of *L. rhombifolia* is cymose), showing the ripening fruit on non-elongating pedicels (in contrast, the pedicels of *L. rhombifolia* elongate to as long as 120 mm).