

Ranunculus collicola



All images by Richard Schahinger

FAMILY: RANUNCULACEAE

BOTANICAL NAME: *Ranunculus collicola*
Menadue, *Brunonia* 8(2): 373 (1986)

COMMON NAME: lake augusta buttercup

COMMONWEALTH STATUS (EPBC Act):
Not Listed

TASMANIAN STATUS (TSP Act): rare

Description

Ranunculus collicola is a diminutive perennial herb with rosettes of leaves arising from short erect rhizomes bearing fibrous roots. Plants are connected by slender underground stolons. The leaves are erect with slender stalks 10 to 25 (to 50) mm long. Leaves glabrous, trifoliolate: terminal leaflet subsessile, narrowly elliptical to oblong, 5 to 6 mm long and 1 to 1.5 mm wide; lateral leaflets sessile, narrowly rhombic, 2.5 to 3 mm long and 0.4 to 1 mm broad. Flowering stems erect, slender, glabrous, shorter than the leaves; flowers 5 to 8 mm in diameter, terminal, in groups of 1 to 3. Sepals 5, spreading, elliptical or ovate, 1.2 to 2.7 mm long, glabrous or rarely sparsely hispid. Petals 6 to 9, dull golden-yellow, narrowly elliptical to lanceolate, 3 to 5 mm long and less than 1 mm wide. Stamens 10 to 14; carpels 5 to 10, glabrous, ovate with erect slender styles. Achenes in globular heads, 4 to 5 mm in diameter, ovate, 2 mm long, surface smooth. Flowering occurs from January to April. (description from Menadue & Crowden 1985 and pers. obs.; Menadue & Crowden (1985) noted that prolonged inundation may cause plants to be larger than 'normal', with petioles lengthened and leaflets broader and slightly more dentate). **Confusing species:** Most closely related to *Ranunculus acaulis* and *Ranunculus collinus*: the former has broad, dentate leaves and greenish-yellow petals (and is a mat-forming species confined to coastal areas of western and southern Tasmania), whereas the latter has fleshy dentate leaves, larger flowers, bright golden-yellow petals and hispid sepals (Curtis & Morris 1975, Menadue & Crowden 1985 & 1989).

Distribution and Habitat

Ranunculus collicola is endemic to Tasmania (Baker & de Salas 2017). It has been recorded from the margins of First Lagoon and Second Lagoon on the Central Plateau at altitudes of 1140–1150 metres above sea level, where it grows in fine silt in areas prone to seasonal flooding (Menadue & Crowden 1985, Crowden 2003). The linear range of the species is believed to be less than 2 kilometres.



Plate 1. *Ranunculus collicola*: habit



Plates 2 & 3. *Ranunculus collicola*: stoloniferous habit & leaf variation



Plates 4 & 5. *Ranunculus collicola*: habitat at Second Lagoon (January 2018)

Crowden & Menadue (1985) noted a 1960 collection from the shores of Lake Sorell (Interlaken) that bore a ‘close resemblance’ to *Ranunculus collicola*, though they could not relocate the species in the area. The same authors conjectured that a record of the closely-allied *Ranunculus acaulis* from the shores of Lake Pedder in southwestern Tasmania (Curtis & Morris 1975) was likely to have been attributable to *Ranunculus collicola* ... the lake has been flooded in the interim (Bayly et al. 1972).

Key Sites and Populations

First Lagoon and Second Lagoon.

Known Reserves

Central Plateau Conservation Area.

Ecology and Management

Ranunculus collicola is known from lakes characterised by their long, gradually deepening shorelines which are inundated through winter/spring, with the water level gradually receding through late spring/summer (Crowden 2003). The species occupies a fairly narrow band along these shorelines, becoming exposed at or just before flowering. The flowers frequently appear underwater. The species appears to hibernate soon after the water level drops, and reappears with the next season’s flooding. Around the periphery of the lagoons, as soon as the edges become steep the plant disappears.

The species appears to be sterile, or nearly so, with very few flowers producing mature fruit (Menadue & Crowden 1985, Crowden 2003). Observations of the population at Second Lagoon in 2017 by personnel with the Tasmanian Seed Conservation Centre are consistent with this notion (Wood, pers. comm.).

Threats to the species include changes to the area’s hydrology and, given the apparent lack of fruiting material, a comparatively high risk of local extinctions due to stochastic events.

Conservation Status Assessment

Ranunculus collicola was listed as rare on the schedules of the Tasmanian *Threatened Species Protection Act 1995* in 2003. Targeted surveys in January 2018 revealed the species to be extant on the northern margins of both First Lagoon and Second Lagoon, though there is insufficient information available to determine the likely trajectory of the species since its listing. Surveys to determine the full extent of the species at First Lagoon and Second Lagoon are required before a meaningful reassessment of its conservation status can be undertaken, as are extension surveys of lakes to the west and northwest of Lake Ada (Crowden 2003).

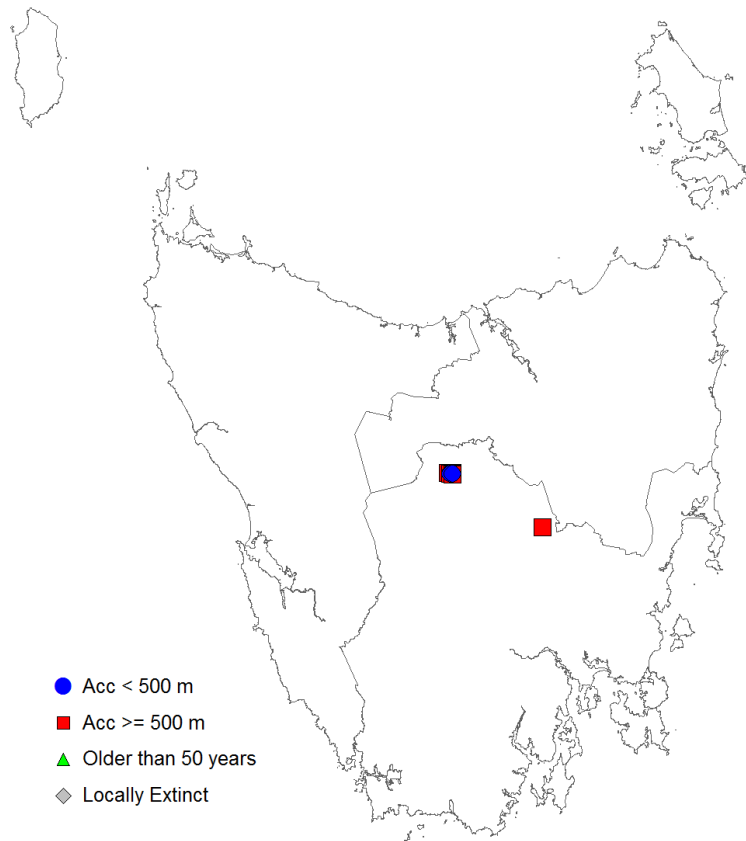
Further Information

- Bayly, I.A.E., Lake, P.S., Swain, R. & Tyler, P.A. (1972). II. Lake Pedder: its importance to biological science. In *Pedder Papers: Anatomy of a Decision*. Australian Conservation Foundation, Victoria.
- Crowden, R. (2003). Correspondence to the TSP Act’s Scientific Advisory Committee, 21 March 2003.
- Curtis, W.M. & Morris, D.I. (1975). *The Student’s Flora of Tasmania. Part 2 (Second Edition)*. Government Printer, Tasmania.

- de Salas, M.F. & Baker, M.L. (2017). *A Census of the Vascular Plants of Tasmania, Including Macquarie Island*. (Tasmanian Herbarium, Tasmanian Museum and Art Gallery, Hobart) www.tmag.tas.gov.au
- Menadue, Y. & Crowden, R.K. (1985). Three New Species of *Ranunculus* (Ranunculaceae) from Tasmania. *Brunonia* 8(2): 373–380.
- Menadue, Y. & Crowden, R.K. (1989). Tasmanian Species of *Ranunculus* — A New Key. *Papers and Proceedings of the Royal Society of Tasmania* 123: 87–96.

Tasmanian Distribution

(As per Threatened Species Section records, January 2018)



1:25 000 Map sheets

Split Rock, Interlaken (?).

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View

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.