

# Trithuria brevistyla

## SYNONYMS

*Trithuria inconspicua* subsp. *brevistyla* K.A.Ford

## FAMILY

Hydatellaceae

## AUTHORITY

*Trithuria brevistyla* (K.A.Ford) de Lange et Mosyakin

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## CURRENT CONSERVATION STATUS

2019 | Threatened – Nationally Vulnerable

## PREVIOUS CONSERVATION STATUS

2017 | Threatened – Nationally Vulnerable | Qualifiers: DP, PD

## BRIEF DESCRIPTION

Diminutive, tufted, aquatic herb 10–40 mm tall producing numerous unsheathed fine hair like leaves arranged in fans. Inflorescences inconspicuous, borne on stalks 1–6 mm long. Flowers much reduced. Female only.

## DISTRIBUTION

Endemic. New Zealand. South Island reported from Southland at Lakes Poteriteri, Hauroko, Manapouri, Te Anau and South Mavora Lake and from Lake Sylvan, Otago

## HABITAT

Shallows of lakes (rarely exposed above the water in a dry season), between 35 and 600 m a.s.l. Growing in sand, silt and gravel, sometimes almost completely buried in muddy silt. Often part of the aquatic-turf community, particularly with short-growing shallow water-species in glacial lakes to a depth of ~0.3–2 m.

## DETAILED DESCRIPTION

Aquatic perennial herb, tufted 10–40 mm high, from a shortly branching erect rhizome, trichomes present; copious adventitious roots. Apomictic plants female only. Plants in populations often female only, or plants co-sexual with unisexual or bisexual reproductive units. Leaf-bases weakly dilated (not sheathing), hyaline, toothed auricles present or absent; leaves spreading, glabrous, 8–37 × 0.4–0.6 mm; lamina linear-filiform, adaxially faintly compressed below, terete above, apex rounded with a hydathode. Reproductive units 1–5 per tuft, (3.5–)4–5(–7) mm long, on glabrous terete scapes 1–6 × 0.3–0.4 mm; involucre bracts 2–4(–7), ovate to broad-ovate or narrow-ovate, Female reproductive unit bracts 1.6–4.0 mm long; carpels 9–25, white–pinkish, with stigmatic hairs reduced to a knobby capitate head (

## SIMILAR TAXA

*Trithuria brevistyla* differs from *T. inconspicua* in the shortened stigmatic hairs forming a knobby capitate head, the fruit being ovoid to globose (rather than ellipsoid to ovoid), and scapes not elongating with maturity.

## FLOWERING

January – February



## FLOWER COLOURS

Red/Pink, White

## FRUITING

March - May

## PROPAGATION TECHNIQUE

Difficult - should not be removed from the wild.

## THREATS

*Trithuria brevistyla* was listed by de Lange et al. (2018), under the tag-name '*Trithuria* aff. *inconspicua* (CHR 502359; South Island)', as Threatened–Nationally Vulnerable (with qualifiers data-poor, partial decline). Smissen et al. (2019) suggested that this assessment be elevated to Threatened–Nationally Endangered citing as reasons the low area of occupancy estimated by them at 10 ha and their projected decline of 10–50%. As the New Zealand Threat Listing Panel was not consulted over this suggestion as per the requirement of Townsend et al. (2008) the change of status remains a 'suggestion' to be discussed at the next national threat listing in 2023.

## ATTRIBUTION

Fact sheet prepared by P.J. de Lange (4 February 2019). Description based on Smissen et al. (2019).

## REFERENCES AND FURTHER READING

- de Lange, P.J.; Rolfe, J.R.; Barkla, J.W.; Courtney, S.P.; Champion, P.D.; Perrie, L.R.; Beadel, S.M.; Ford, K.A.; Breitwieser, I.; Schönberger, I.; Hindmarsh-Walls, R.; Heenan, P.B.; Ladley, K. 2018: Conservation Status of New Zealand Indigenous Vascular Plants, 2017. *New Zealand Threat Classification Series 22*. Department of Conservation, Wellington. 82pp.
- de Lange, P.J.; Mosyakin, S.L. 2019: *Trithuria brevistyla* (Hydatellaceae), a new combination for the New Zealand endemic species from the South Island. *Ukrainian Botanical Journal* 76 (2): <https://doi.org/10.15407/ukrbotj76.02.095>
- Smissen, R.D.; Ford, K.A.; Champion, P.D.; Heenan, P.B. 2019: Genetic variation in *Trithuria inconspicua* and *T. filamentosa* (Hydatellaceae): a new subspecies and a hypothesis of apomixis arising within a predominantly selfing lineage. *Australian Systematic Botany* 32: 1–11.
- Townsend, A.J.; de Lange, P.J.; Duffy, C.A.J.; Miskelly, C.M.; Molloy, J.; Norton, D.A. 2008: New Zealand Threat Classification System manual. Department of Conservation, Wellington. 35pp.

## NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Trithuria brevistyla* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/trithuria-brevistyla/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/trithuria-brevistyla/>