

# Trithuria inconspicua

## SYNONYMS

Hydatella inconspicua (Cheeseman) Cheeseman, *Trithuria inconspicua*  
Cheeseman subsp. *inconspicua*

## FAMILY

Hydatellaceae

## AUTHORITY

*Trithuria inconspicua* Cheeseman

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## CHROMOSOME NUMBER

2n = c.24

## CURRENT CONSERVATION STATUS

2018 | Threatened – Nationally Critical

## PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Endangered | Qualifiers: EF, PD, RR

2009 | Threatened – Nationally Vulnerable | Qualifiers: RR

2004 | Serious Decline

## BRIEF DESCRIPTION

Diminutive, tufted, aquatic herb 15-55 mm tall producing numerous unsheathed fine hair like leaves arranged in fans. Inflorescences inconspicuous, borne on stalks 20–40 mm long. Flowers much reduced, male, flower or bisexual. Male flowers with obvious red stamens. Female flowers much reduced reddish.

## DISTRIBUTION

Endemic. New Zealand. North Island, Northland, where it is known from western dune lakes from near Awanui to the Pouto Peninsula.

## HABITAT

An aquatic of shallow to medium depth (5-7m) freshwater lakes (exact depth range dependant on water quality and light levels). Preferring reasonably stable substrates but has been found growing in fine sand, gravel and organic muds. Apparently intolerant of surrounding taller vegetation. Mature plants are often partially buried in sediment so that only their upper most leaf tips are exposed.



Kai Iwi Lakes. Photographer: Jeremy Rolfe



Typical view, partially obscured by sediment and algal floc. Kai Iwi Lakes. Photographer: Jeremy Rolfe

## FEATURES

Aquatic perennial herb, tufted 15–55 mm high, from a shortly branching erect rhizome, trichomes present; copious adventitious roots. Apomictic or sexual. 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, 15–55 × 0.25–0.4 mm; lamina linear-filiform, adaxially faintly compressed below, terete above, apex rounded with a hydathode. Reproductive units 1–4 per tuft, (3.5–)4–5(–7) mm long, on glabrous terete scapes 20–40 × 0.3–0.4 mm; involucral bracts 2–4(–7), male reproductive unit bracts 3.5–5.0 mm long, ovate to narrow-ovate, stamens (1–)3–8; anthers 0.8–1.4 mm long, bright red, filaments 1–5 mm long. Bisexual reproductive unit bracts 4–5 mm long; stamens 1–5; carpels 2–10. Female reproductive unit bracts 2.5–5.0 mm long; carpels 8–24, reddish, with 5–13 stigmatic hairs of unequal length, 0.3–1.0 mm long, red becoming hyaline. Fruits 0.4–0.56 × 0.2–0.4 mm, ellipsoid to ovoid, deciduous from persistent stalks, pericarp thin and membranous, smooth, indehiscent. Seed faintly reticulate, yellowish-brown to reddish-brown with a darker apical cap (formed by an operculum).

## SIMILAR TAXA

*Trithuria inconspicua* is most likely to be confused with some of the spike rushes (*Eleocharis* spp.) and species of *Centrolepis*. From these *Trithuria* differs by its submerged flowering habit, with the male and female flowers usually separate; by the male flowers which have much longer filaments and 2-celled anthers; and by the female flowers which have septate styles that are septate. Vegetative material of *Trithuria* differs from *Centrolepis* in that the leaves are not sheathed. *Trithuria* could be confused with sterile plants of *Eleocharis pusilla*, however, *E. pusilla* has uniformly bright green leaves arising from a creeping rhizome. *Trithuria brevistyla* differs from *T. inconspicua* by the possession of shortened stigmatic hairs that form a knobbly capitate head; by the void to globose (rather than ellipsoid to ovoid), and by the scapes which do not elongate at maturity

## FLOWERING

October - December

## FLOWER COLOURS

Red/Pink, Yellow

## FRUITING

December - February

## PROPAGATION TECHNIQUE

Difficult. Should not be removed from the wild.

## THREATS

Seriously threatened in Northland due to the recent spread of the introduced bladderwort *Utricularia gibba*, and also by the continuing spread of oxygen weeds into these important lakes. Indeed, as of 2004, it has been confirmed as extinct in two more Far North dune lakes.

## ETYMOLOGY

**inconspicua**: Inconspicuous

## ATTRIBUTION

Fact Sheet by P.J. de Lange (6 January 2004). Fact sheet updated by P.J. de Lange (4 February 2019). Description based on Smissen et al. (2019).

## REFERENCES AND FURTHER READING

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.

## NZPCN FACT SHEET CITATION

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

## MORE INFORMATION

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