

Nitella claytonii

COMMON NAME

stonewort

FAMILY

Characeae

AUTHORITY

Nitella claytonii M.T. Casanova

FLORA CATEGORY

Non-vascular – Native

BRIEF DESCRIPTION

Small rarely branched submerged plant usually growing in water deeper than 10 metres.

DISTRIBUTION

Endemic. New Zealand: South Island.

HABITAT

Usually recorded from deep, clear-water glacial lakes, at high elevation. Deeply growing, often as a 'meadow'.

DETAILED DESCRIPTION

Aquatic, submerged, macro-algae. Linear, grass-like appearance, to c. 0.4 m tall. Inconspicuous, simple sterile branchlets arise in whorls from the central stems, which are anchored in the sediment by colourless rhizoids. Branchlet length is many times shorter than the stem length between whorls. Branchlets are rarely forked, are usually very short and three cells long. Stem and branchlets are comprised of strings of single cells that are easily punctured. Plant is monoecious, with antheridia and oogonia on the same plant, in small contracted heads or often occurring singly and without mucus present on small, elongated, contracted fertile heads.

SIMILAR TAXA

The absence of obvious forking in the sterile branchlets means this species resembles lax examples of *Chara australis* and *C. sp. aff. muelleri*. However, these *Chara* species have small additional cells at the junctions of branchlet cells and immediately below the branchlet whorl.

FRUITING

Oospores are laterally compressed, longer than 450 µm and have prominent spiral ridges, with a reticulate membrane surface.

PROPAGATION TECHNIQUE

Fragments or oospores.

REFERENCES AND FURTHER READING

Broady, P.A.; Flint, E.A.; Nelson, W.A.; Cassie Cooper, V.; de Winton, M.D.; Novis P.M. Chapter 23 Twenty –Three :Phyla Chlorophyta and Charophyta (Green Algae). In: New Zealand Inventory of Biodiversity (Volume 3), Gordon, D.P. (Ed), Canterbury University Press, 616pp.

Casanova, M.T.; de Winton, M.D.; Karol, K.G.; Clayton J.S. (2007). *Nitella hookeri* A. Braun (Characeae, Charophyceae) in New Zealand and Australia: implications for endemism, speciation and biogeography. *Charophytes* (1): 2-18

de Winton, M.D.; Dugdale, A.M.; Clayton, J.S. (2007). An identification key for oospores of the extant charophytes of New Zealand. *New Zealand Journal of Botany*:463-476

Wood RD, Mason R 1977. Characeae of New Zealand. *New Zealand Journal of Botany* 15: 87–180.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/nitella-claytonii/>

