Nitella claytonii

COMMON NAMES
stonewort

BIOSTATUS
Native

CATEGORY
Non-vascular

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

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.

DISTRIBUTION
Endemic. New Zealand: South Island.

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

GENUS
Nitella

FAMILY
Characeae

AUTHORITY
Nitella claytonii M.T. Casanova

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/

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