Nitella leonhardii

COMMON NAMES
stonewort

BIOSTATUS
Native

CATEGORY
Non-vascular

SIMPLIFIED DESCRIPTION
Small branched submerged plant with easily punctured stems and branches. Distinctive forked branches. Fruiting heads are orange, covered in a clear jelly.

DETAILED DESCRIPTION
Aquatic, submerged, macro-algae. Lax plant with open, uneven branching. Forked branchlets arise in whorls from central stems, which are anchored in the sediment by colourless rhizoids. 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, located together in a strongly contracted fertile spike and with heavy mucus present on and enclosing orange, spike-like fertile heads. Usually has a two, or often more, cells beyond the last fork, including a blunt or sausage-like end cell. Often a slimy feeling to the plant.

SIMILAR TAXA
Easy to identify when fruiting, but sterile plants are difficult to tell apart from Nitella hookeri, N. masonae, N. tricellularis, N. claytonii and N. sp. aff. cristata. Distinguished from the above by blunt or sausage-like end cells.

DISTRIBUTION
Indigenous. New Zealand: North, South Island. Also Australia.

HABITAT
Lakes, swamps and slow flowing waters.

GENUS
Nitella

FAMILY
Characeae

AUTHORITY
Nitella leonhardii R.D. Wood

SYNONYMS
Nitella leptostachys

FRUITING
Oospores are commonly chestnut brown, laterally compressed, between 330 and 450 µm in length and have low ridges, with a clearly 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-leonhardii/

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