

# Nitella hookeri

## COMMON NAME

Stonewort

## FAMILY

Characeae

## AUTHORITY

*Nitella hookeri* A. Braun

## FLORA CATEGORY

Non-vascular – Native

## NVS CODE

NITHOO

## BRIEF DESCRIPTION

Small branched submerged plant with easily punctured stems and branches. Distinctive forked branches.

## DISTRIBUTION

Indigenous. New Zealand: North, South Island. Also Kerguelen Island, Indian Ocean.

## HABITAT

Lakes and slow flowing waters.

## DETAILED DESCRIPTION

Aquatic, submerged, macro-algae. Usually a small plant to 0.3 m. 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, usually located together on slightly contracted branchlets and without mucus present on slightly contracted fertile heads. Usually three cells comprise the branchlet beyond the last fork.

## SIMILAR TAXA

Obviously forked sterile branchlets, in which the length to the fork and beyond the fork are similar, distinguish this species from *Nitella tricellularis* and *N. claytonii*, which have absent or inconspicuous forking. *N. masonae* has only occasional obvious forked sterile branchlets. Sterile branchlets in *N. hookeri* usually fork only once, compared to twice in the similar *N. sp. aff. cristata*.

## FRUITING

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

## PROPAGATION TECHNIQUE

Fragments or oospores.

## ETYMOLOGY

**hookeri**: Named after Sir Joseph Dalton Hooker (born 1817) - a world famous botanist who travelled on the Antarctic expedition of 1839 under the command of Sir James Ross and wrote "Handbook of New Zealand Flora" published in 1864-67 describing many specimens sent to Kew by collectors. He died in 1911 and has a memorial stone at Westminster Abbey London.



## 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-hookeri/>