

# Callitriche stagnalis

## COMMON NAME

water starwort

## FAMILY

Plantaginaceae

## AUTHORITY

*Callitriche stagnalis* Scop.

## FLORA CATEGORY

Vascular – Exotic

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

CALSTA

## BRIEF DESCRIPTION

An erect amphibious, slender-stemmed perennial, growing up to 1m tall in shallow freshwater or creeping, prostrate and mat-like on damp ground. Apical rosettes of leaves frequently float on the water surface, submerged leaves broad. The flowers are small, green and inconspicuous.

## DISTRIBUTION

Widespread and locally abundant throughout NZ.

## HABITAT

Damp swampy water margins, drains and streams, shallow water margins.

## FEATURES

*C. stagnalis* has slender stems, 10 to 50 cm or more long, with opposite, linear to narrow-lanceolate leaves separated by elongated internodes. Towards the apex, the leaves are typically crowded, obovate or spatulate-oblong and may form floating rosettes. In floating rosettes of apical close-set leaves, the stems are often just/shortly above the water. The upper most leaves are up to 10 mm long by 6 mm wide, while the lower leaves (in pairs) are narrower (but never as narrow as in the native *C. petriei*). Leaves have 3, 5 or 7 veins. The male and female flowers are separate, on the same plant. The flowers are green and tiny, without petals or sepals, and occur either in pairs or solitary at the base of the leaves. The fruit are ca 1.5 mm in diameter, pale, round and narrowly winged.

## SIMILAR TAXA

All *Callitriche* species are superficially similar and have variable vegetative parts (Lansdown 2008). Species are distinguished by the venation of leaves and shape of their fruit. Leaves obovate and fruit narrowly winged. Submerged leaves wider than those of the native *C. petriei*.

## FLOWERING

December to February

## FLOWER COLOURS

Green

## FRUITING

Summer to autumn.



Coromandel, December. Photographer: John Smith-Dodsworth



Coromandel, December. Photographer: John Smith-Dodsworth

## LIFE CYCLE

Reproduces sexually with seeds and spreads vegetatively by creeping stems.

## YEAR NATURALISED

1912

## ORIGIN

Europe and North Africa

## REASON FOR INTRODUCTION

Probably a soil seed contaminant or contaminant of ornamental pond plants, possibly native.

## CONTROL TECHNIQUES

Dense growths of starwort are often a conspicuous feature in drains and can impede waterflow. Can be sprayed or mechanically removed from flowing water channels.

## TOLERANCES

The taxonomy of the four introduced Northern Hemisphere Callitriche requires further investigation in New Zealand.

## ETYMOLOGY

**callitriche:** From the Greek kalli 'beautiful' and thrix 'hair', referring to the beautiful stems

**stagnalis:** From the Latin stagnum 'pond, standing water, pool', meaning growing in standing water

## ATTRIBUTION

Factsheet prepared by Paul Champion and Deborah Hofstra (NIWA).

## REFERENCES AND FURTHER READING

Johnson PN, Brooke PA (1989). Wetland plants in New Zealand. DSIR Field Guide, DSIR Publishing, Wellington. 319pp.

Coffey BT, Clayton JS (1988). New Zealand water plants: a guide to plants found in New Zealand freshwaters. Ruakura Agricultural Centre. 65pp.

Popay et al (2010). An illustrated guide to common weeds of New Zealand, third edition. NZ Plant Protection Society Inc, 416pp.

WSDE (2001). An aquatic plant identification manual for Washington's freshwater plants. Washington State Department of Ecology, 195pp.

Aston, H (1977). Aquatic plants of Australia. Melbourne University Press, 367pp. Lansdown, R.V. (2008). Water-starworts (Callitriche of Europe) BSBI Handbook 2, London. 180 pp.

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/callitriche-stagnalis/>