# 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** 

#### **CONSERVATION STATUS**

Not applicable

#### **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**

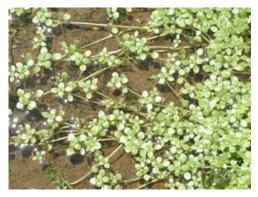
Damp swampy water margins, drains and streams, shallow water margins.

# **WETLAND PLANT INDICATOR STATUS RATING**

**OBL: Obligate Wetland** 

Almost always is a hydrophyte, rarely in uplands (non-wetlands).

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Coromandel, December. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.



Coromandel, December. Photographer: John Smith-Dodsworth, Licence: CC BY-NC.

# **DETAILED DESCRIPTION**

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 spathulate-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.

#### 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 Cente. 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). Waterstarworts (Callitriche of Europe) BSBI Handbook 2, London. 180 pp.

# **MORE INFORMATION**

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