



Pesky Pond Plants and how they affect amphibians

Impact on ecosystem functioning and native vegetation

- Sheer level of biomass
- Nutrient uptake
- Changes in water chemistry
- Physical barrier
- Niche displacement
- Jersey high impact
- 10% increase 5% decrease in native vegetation



Some native plants affected by *Crassula helmsii*

Brown Galingale - *Cyperus fuscus*

Jersey Forget-me-not - *Myosotis secula*

Lesser Marshwort - *Helosciadium nodiflobum*



What does it mean for amphibians ?

- Spawning rate and egg survival lower compared with bare soil/preferred native plants.
- Fills up water column so competition for space known to reduce tadpole survival.
- Physical barrier to movement.
- Absorbs substantial amount of nutrient which affects productivity of larvae-preferred algae.
- Reduced larval growth due to change in water chemistry
- Reduced larval growth due to temp reduction through shading.
- Pond dries up before metamorphosis reached.



New Zealand pigmyweed (*Crassula helmsii*)

Identification of different forms

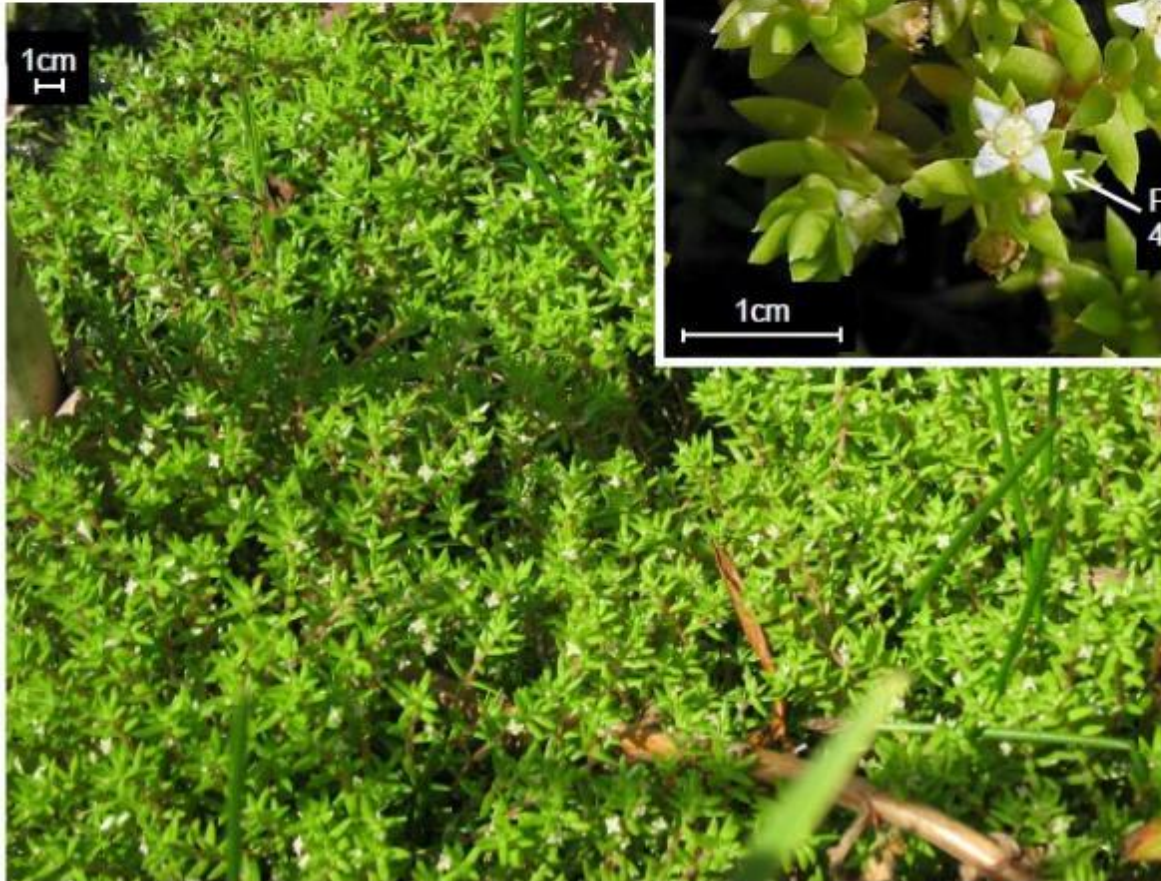
- *Terrestrial (left)*: Growing away from water's edge or left stranded as water level falls, creeping stems and aerial, fleshy leaves.
- *Emergent (middle)*: Densely packed leaves in water, intermediate between terrestrial and submerged form (occurs in water <0.6m deep.)
- *Submerged (right)*: Elongated stems with leaves sparse and flat, able to form extensive mats on bed of water body.



New Zealand pigmyweed (*Crassula helmsii*)

Key ID Features

Forms dense mats within the water body



- Forms dense mats within the water body
- Flowers very small, often absent, whitish-green to slightly pink
- Flowers have 4 petals

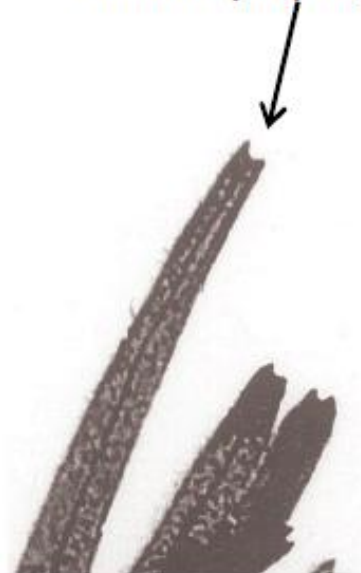
New Zealand pigmyweed (*Crassula helmsii*)

– similar species

A group of species known as water-starworts are most likely to be confused with New Zealand pigmyweed. Water-starworts are distinguished from New Zealand pigmyweed by their non-fleshy leaves, which are usually notched at the tip (hold up to light or use hand lens), and lack of collar at leaf base.



Water-starwort leaf with typically notched tip, a hand lens is usually required to see this properly



Water fern (*Azolla filiculoides*)

Key ID Features

Usually green but often has a reddish tinge and can be completely red when exposed to stresses



Parrot's feather (*Myriophyllum aquaticum*)

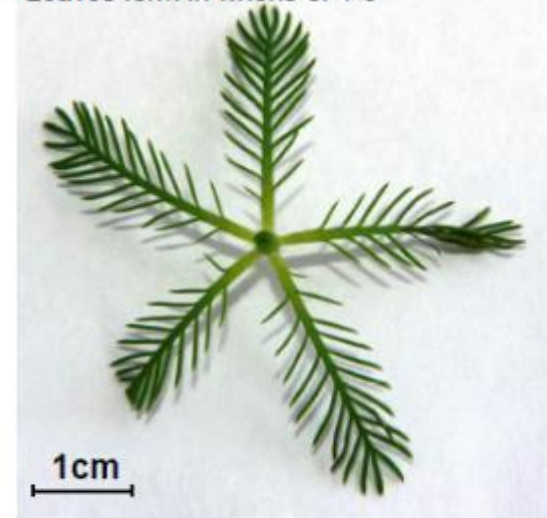
- Changes form depending on the conditions, varying between submerged to emergent foliage.
- Both forms are similar in appearance
- Emergent leaves are stiff, bright green and the most distinctive form.
- Submerged leaves are more fragile and, after death, decompose quickly.

Leaves bright to blue-grey green



Stem breaks easily, brown roots present around nodes

Leaves form in whorls of 4-6



1 cm



Stems can grow to 2m tall

Emergent leaves more robust

Forms inconspicuous flowers at base of leaves between May and August. Small (2mm) and white. Can be difficult to see.



Finely divided leaves, feather-like

Canadian waterweed (*Elodea canadensis*)



Canadian Waterweed
(*Elodea canadensis*)



Leaves up to 2 cm long, in whorls of 3, widest at middle and either pointed or rounded at end

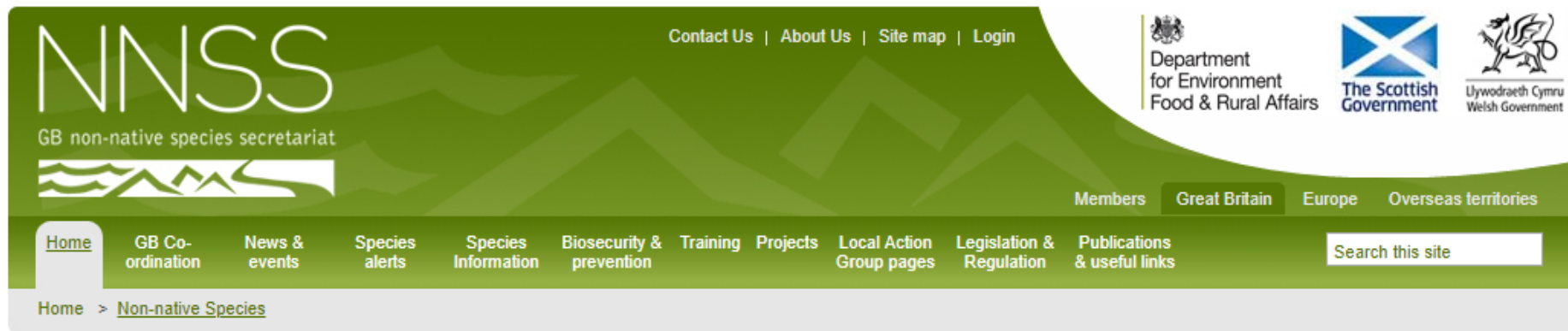
- Flowers are small and inconspicuous and petals white or white tinged with red and borne on end of very long fine stalk.

Resources

GB non-native species secretariat
(<http://www.nonnativespecies.org>)



Includes **Species Identification sheets** and an **E-learning** course (*Module 2b. Identification of Invasive Freshwater Plants*).



Welcome to the GB non-native species secretariat website

First published in 2008 and updated in 2015 the GB Invasive Non-native Species [Strategy](#) was developed to meet the challenge posed by invasive non-native species in Great Britain. This website provides tools and information for those working to support the strategy.



Be plant wise and
don't dump aquatic



Search for information on a non-native species

Enter common or scientific name

GO



News [\(archived news\)](#)



RAPID LIFE project: Contract advertised for programme of workshops to increase awareness of 'alert' species and how to report them.

08 February 2019



New NNSS email address
03 January 2019



Report floating pennywort this winter, says Environment Agency
18 December 2018

Clean your boots !





Pesky Pond Plants any questions

