



Pondwatch JE

- a new scheme for surveying Jersey's pondlife

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Amphibian and Reptile Conservation



Identifying Invasive Non-Native Plants

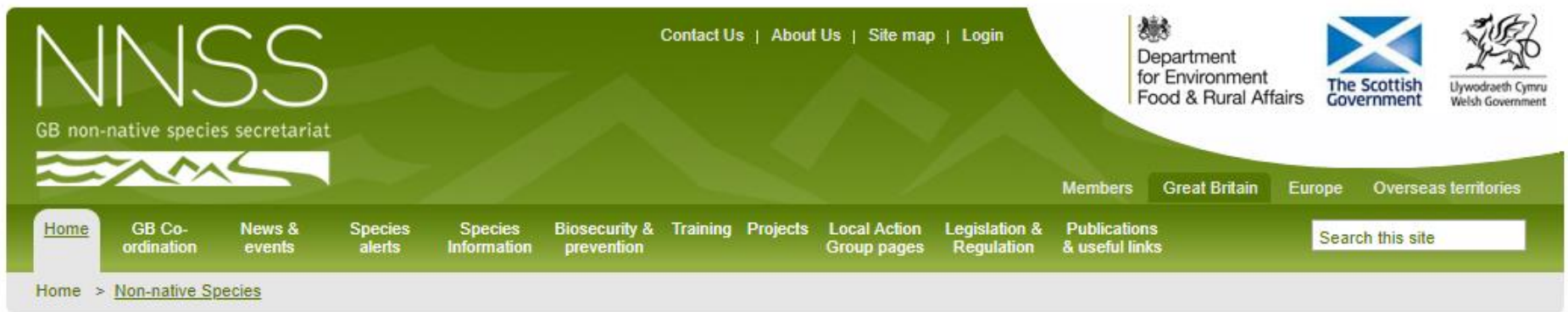


Resources

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
plants in the wild



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

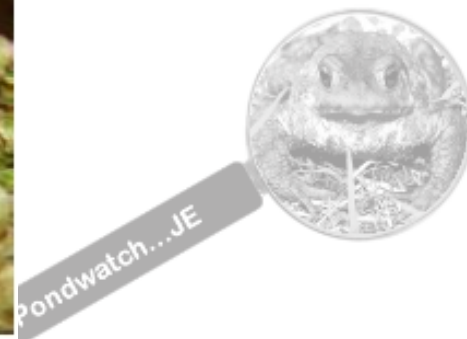


Report floating pennywort this winter, says Environment Agency
18 December 2018

Water fern (*Azolla filiculoides*)

Key ID Features

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



Water fern (*Azolla filiculoides*)



Forms dense mats but can also be present as a few fronds amongst emergent or other floating vegetation



Water fern (*Azolla filiculoides*)

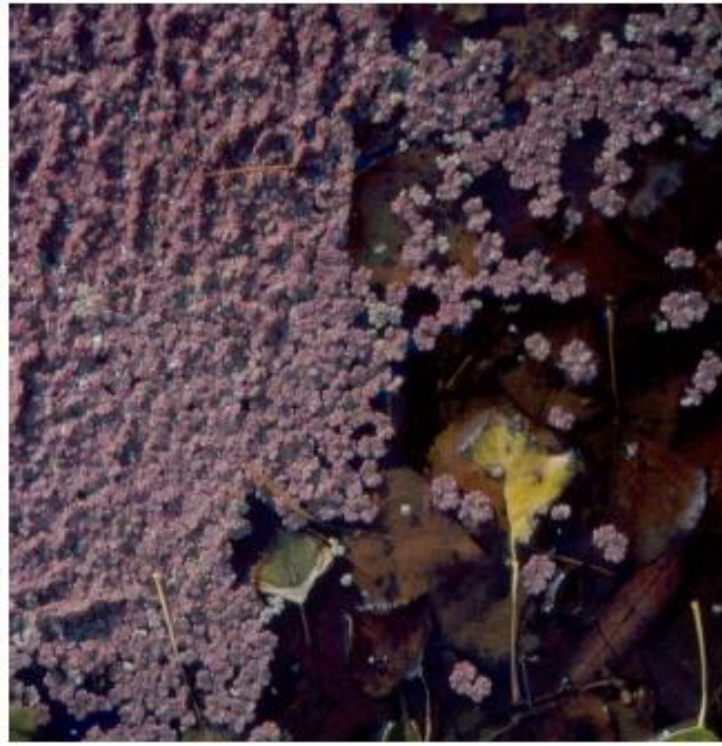
Identification throughout the year

Plants can be present year round, but often die back in winter. Colour can vary considerably through the year. Green in spring/summer often turns red during cold weather in autumn/winter.

Green form



Red form

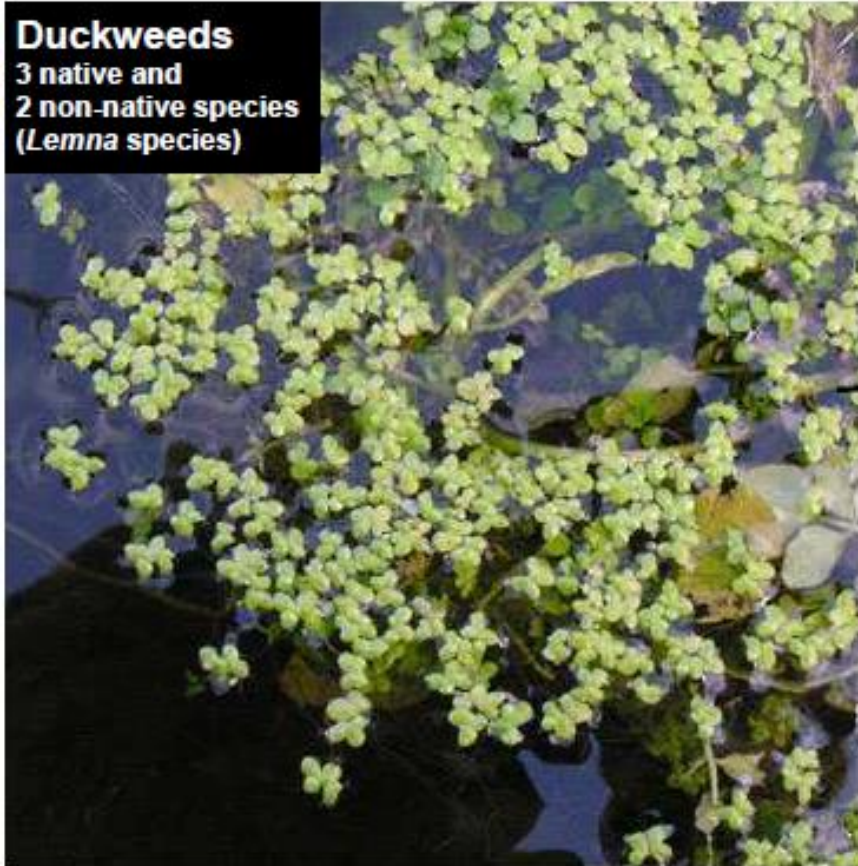


Pondwatch...JE

Water fern (*Azolla filiculoides*)

– similar species

Duckweeds
3 native and
2 non-native species
(*Lemna* species)



Common Duckweed

Native
(*Lemna minor*)

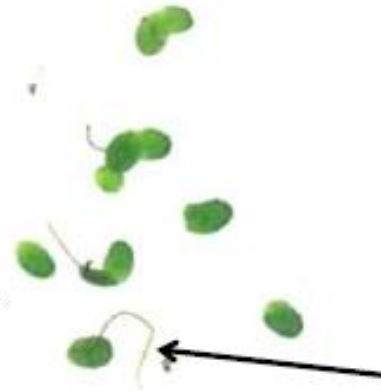
Light green colour

Smaller than water fern
(only 1.5 - 4mm across)

Single round leaves, not
branched

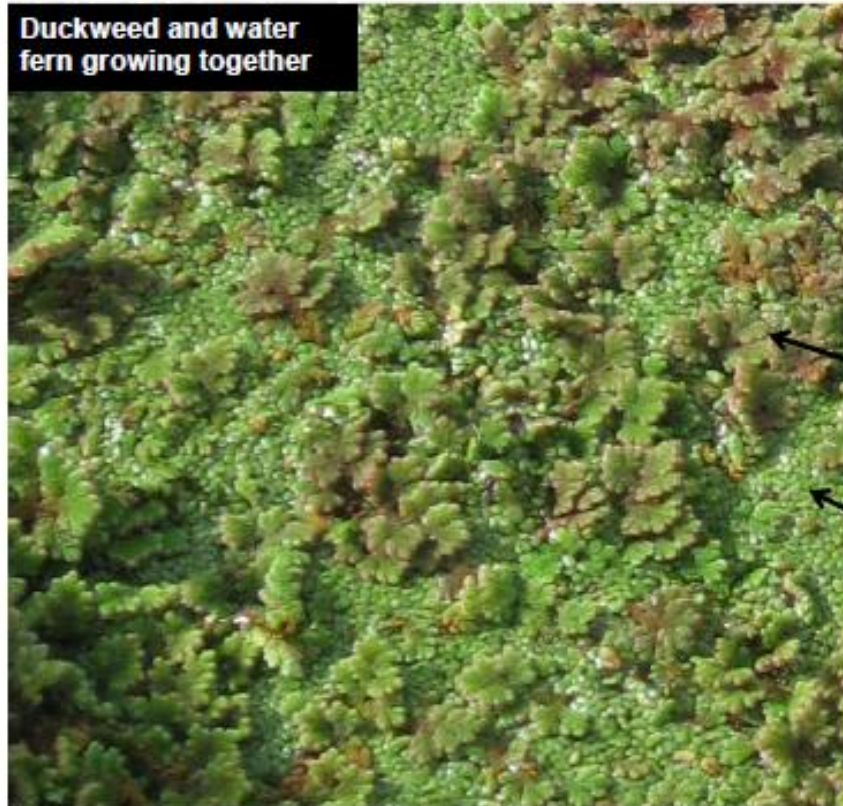
White to light green root
attached to each leaf

1cm



Water fern (*Azolla filiculoides*)

– similar species



Water fern

Duckweed

Water Fern For comparison

Multiple dark brown roots

Leaves are much larger (up to 2.5cm) and branching

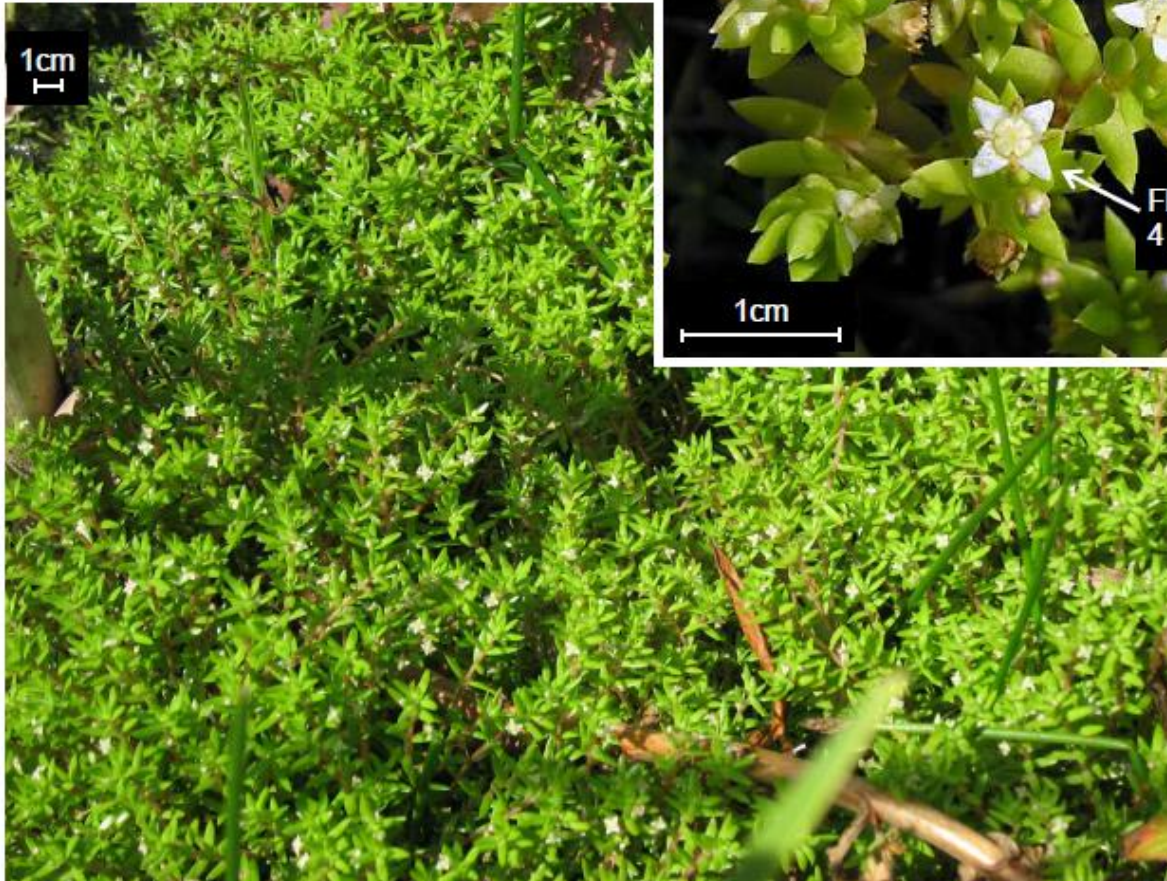
1cm



New Zealand pigmyweed (*Crassula helmsii*)

Key ID Features

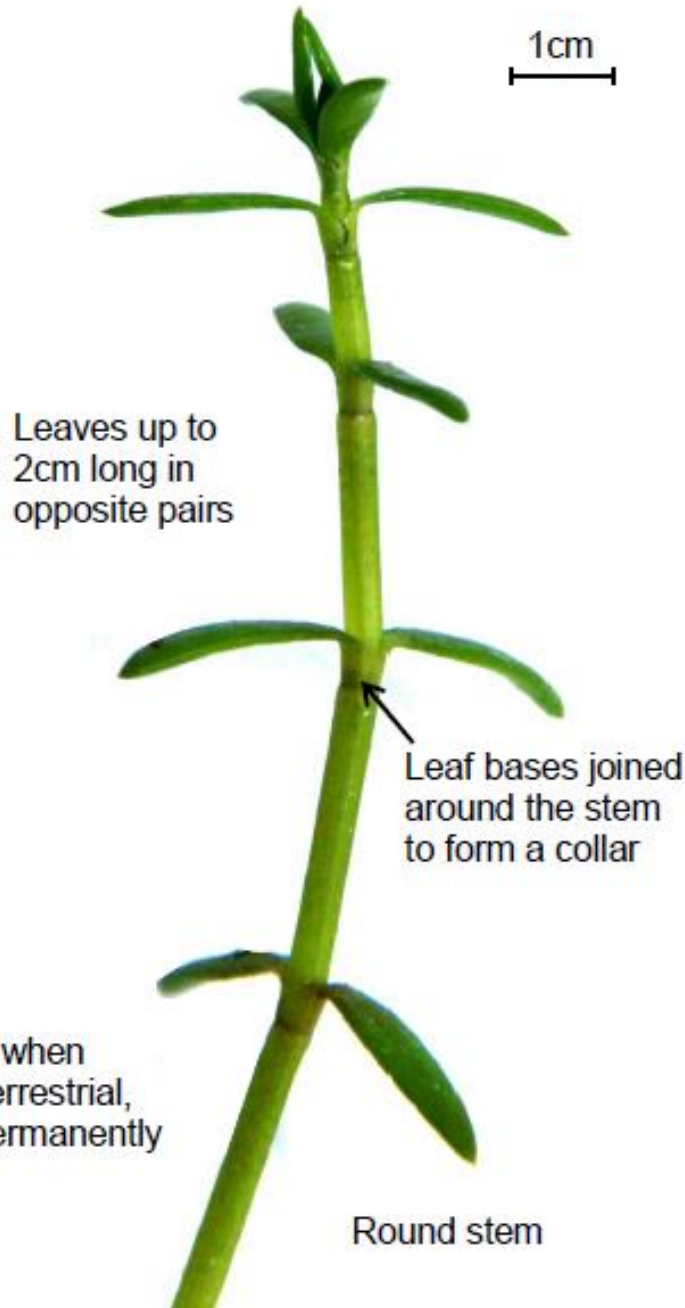
Forms dense mats within the water body



- 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*)



- Leaves up to 2 cm long in opposite pairs
- Leaf bases joined around the stem to form a collar
- Leaves fleshy when emergent or terrestrial, flatter when permanently submerged
- Round stem



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.



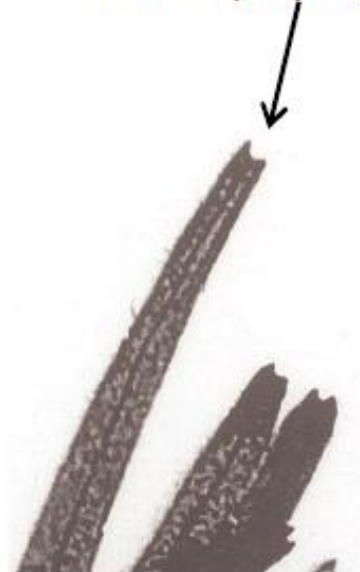
New Zealand pigmyweed (*Crassula helmsii*)

– 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



New Zealand pigmyweed (*Crassula helmsii*)

– similar species

New Zealand Pigmyweed For comparison



New Zealand
pigmyweed collar
around stem at
base of leaves

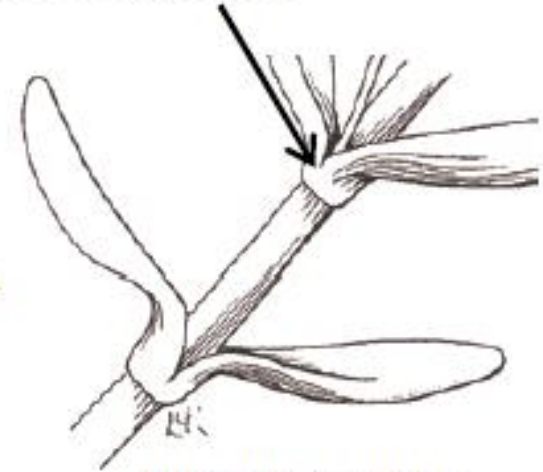


Illustration from IFAS,
Centre for Aquatic
Plants, University of
Florida, Gainesville 1990

Fleshy leaves
without
notched tips



Canadian waterweed (*Elodea canadensis*)

Canadian Waterweed
(*Elodea canadensis*)



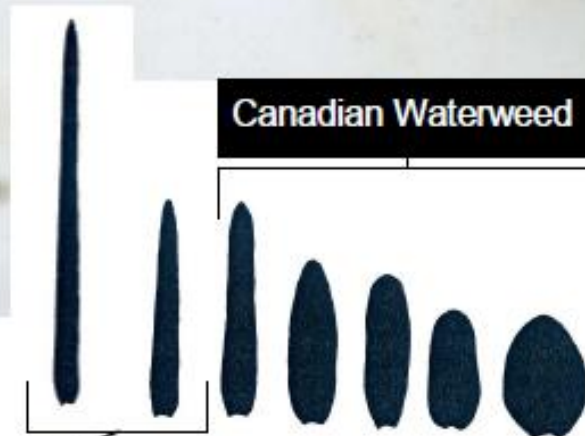
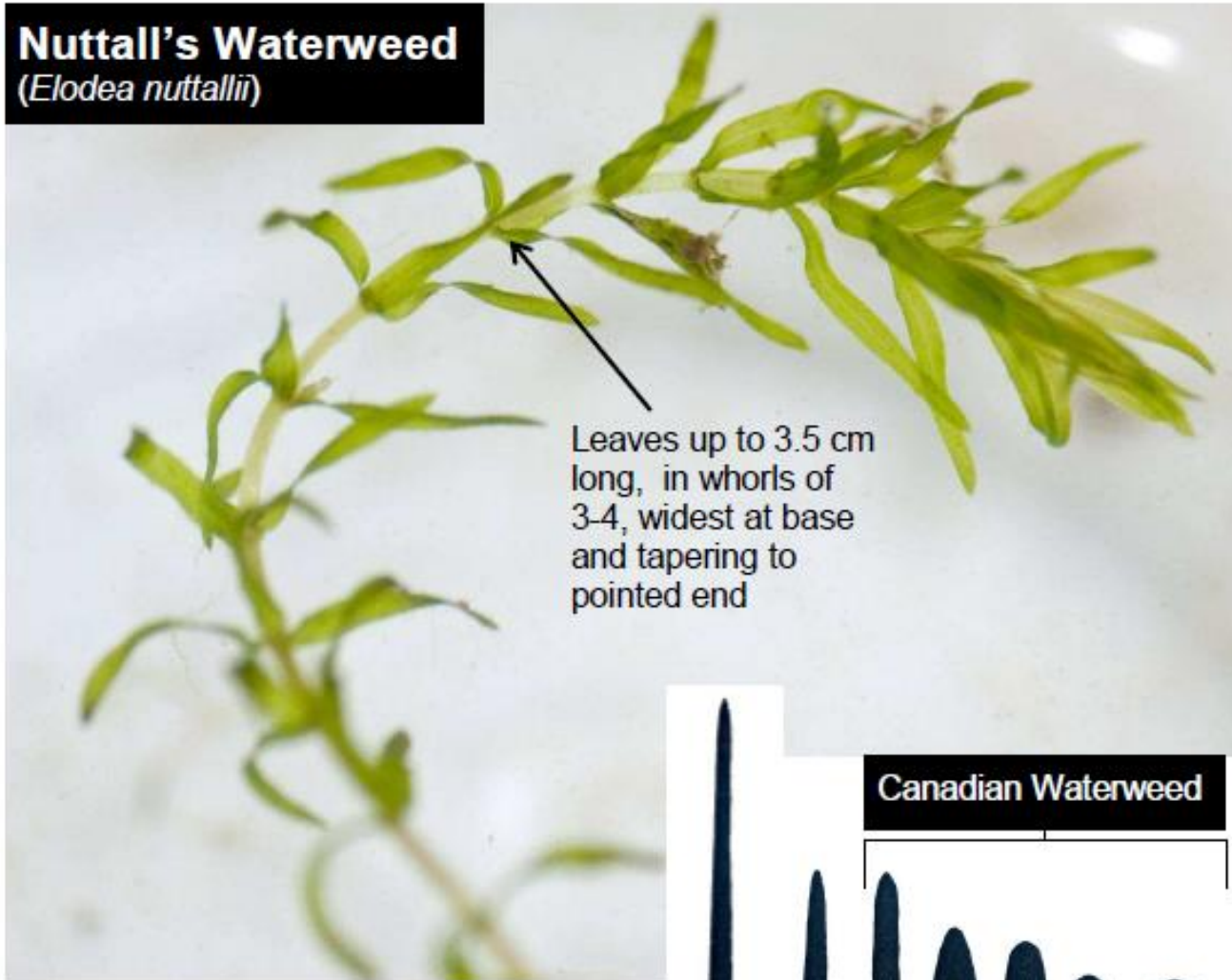
- Flowers are small and inconspicuous and petals white or white tinged with red and borne on end of very long fine stalk.



Canadian waterweed (*Elodea canadensis*)

– similar species

Nuttall's Waterweed (*Elodea nuttallii*)



Nuttall's Waterweed

Taken from Simpson, 1986



Canadian waterweed (*Elodea canadensis*)

– *similar species*

Curly Waterweed
Non-native
(*Lagarosiphon major*)



Curly waterweed (*Lagarosiphon major*) – non-native

- Lower leaves spiraled at base, not in whorls.
- Leaves to 3 cm long.
- Flowers inconspicuous, with reddish petals.

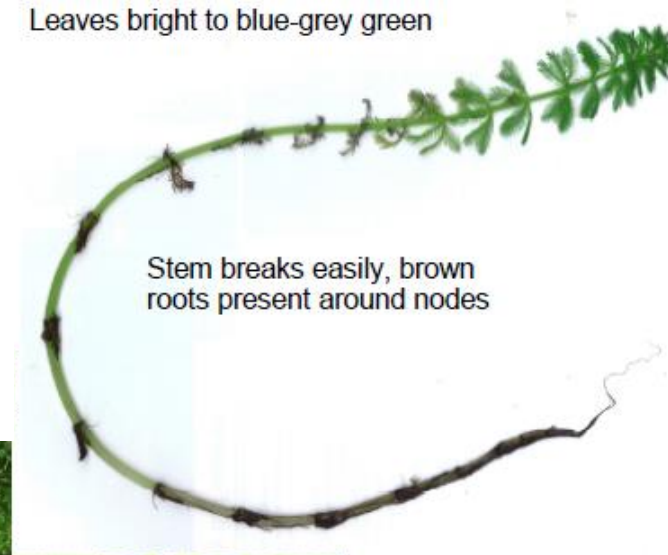
Lower leaves spiraled
at base, not in whorls.
Leaves to 3 cm long



Parrot's feather (*Myriophyllum aquaticum*)

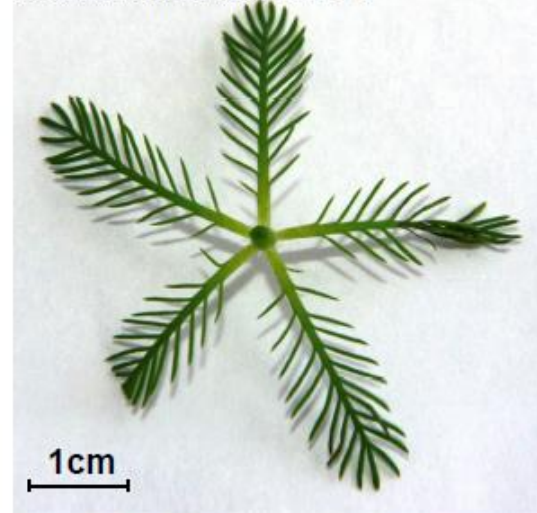
- Changes form depending on the conditions, varying between submerged to emergent foliage.
- Both forms are similar in appearance
- Emergent leaves are stiff, bright green and the most distinctive form.
- Submerged leaves are more fragile and, after death, decompose quickly.

Leaves bright to blue-grey green



Stem breaks easily, brown roots present around nodes

Leaves form in whorls of 4-6



1cm



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.

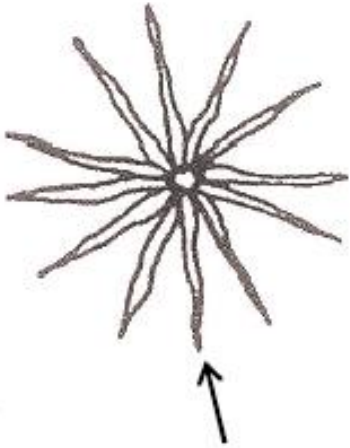


Finely divided leaves, feather-like

Parrot's feather (*Myriophyllum aquaticum*)

– similar species

Mares Tail
Native
(*Hippuris vulgaris*)



Leaves not divided



Parrot's Feather
(and other *Myriophyllum* species)
For comparison

