

Water fern

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Species Description

Scientific name: *Azolla filiculoides*

AKA: Fairy Fern

Native to: North and Central America

Habitat: Still and slow flowing water bodies (e.g. ponds, drainage channels, ditches, canals)

Azolla filiculoides is a floating aquatic fern that is almost moss-like in appearance. It is bright green in colour with a noticeable fine red border round each leaf. Leaves up to 2.5 cm. Often acquires a rusty red colouration in winter, or when stressed. It is not tolerant of turbulence or waves, and is usually flushed out of fast-flowing rivers and streams.

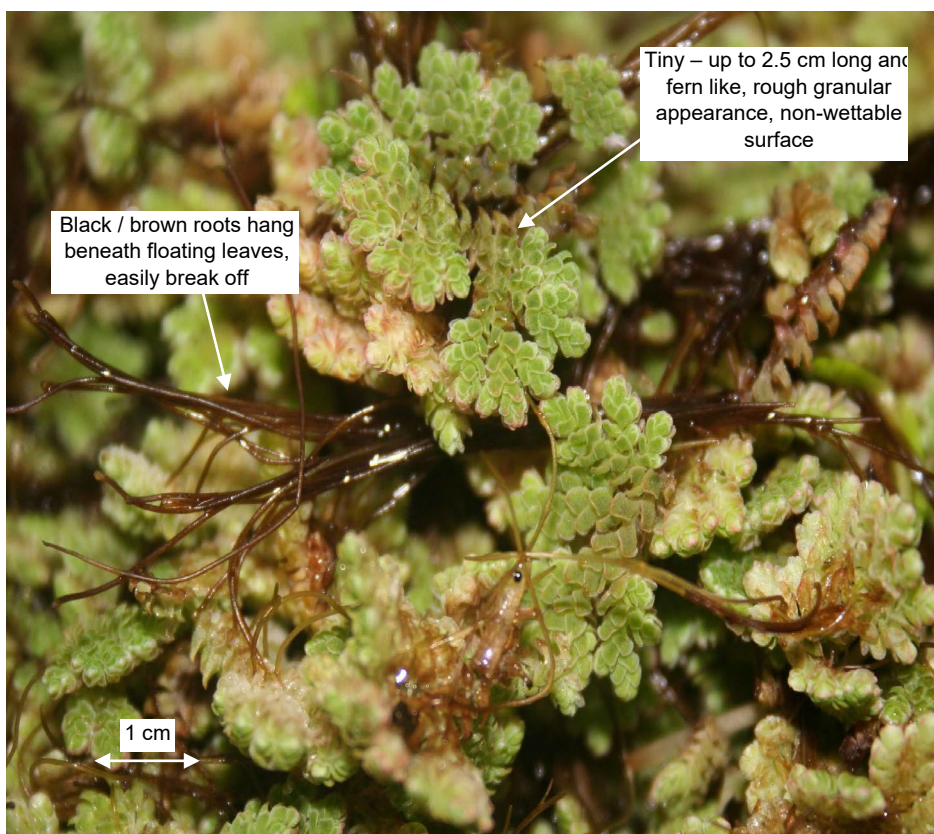
Introduced for ornamental use in ponds and aquaria. Can be inadvertently carried on water plants from garden centres. Out-competes native species by forming a dense covering on the surface of the water, blocking out light, causing deoxygenation, preventing air-breathing insects from reaching the surface and reducing water temperatures. Dense and continuous stands can be a health hazard as the water surface appears solid.

Water Fern is listed under Schedule 9 of The Wildlife (Northern Ireland) Order 1985 and as such, it is an offence to plant or otherwise allow this species to grow in the wild.



Key ID Features

Usually green but often has a reddish tinge and can be completely red when exposed to stresses (such as cold temperatures, brackish waters or shading)



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

Report any sightings via; CEDaR Online Recording - <https://www2.habitas.org.uk/records/ISI>, iRecord app or Invasive Species Northern Ireland website - <http://invasivespeciesni.co.uk/report-sighting>

Identification throughout the year

Plants can be present year round, but often dies 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

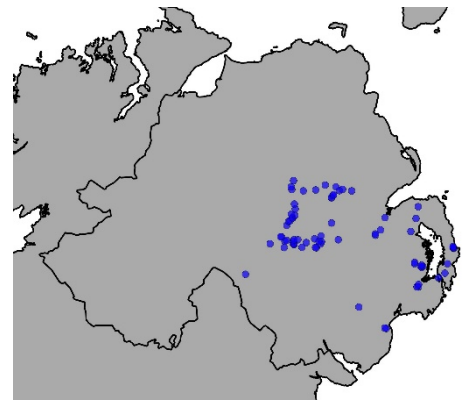


Red form



Distribution

Recorded in a number of sites across Northern Ireland.



Source: NBN Atlas Northern Ireland <https://northernireland-species.nbnatlas.org/species/NBNSYS0000002090>
Check website for current distribution

Similar Species

Duckweeds

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



Duckweed and water
fern growing together



Duckweed

Water fern

Common Duckweed

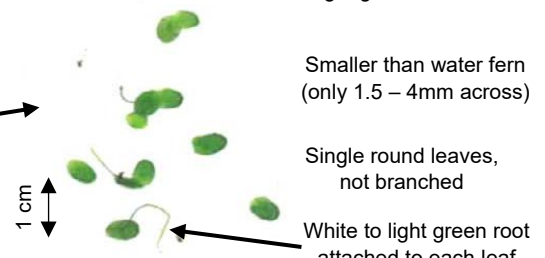
Native
(*Lemna minor*)

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

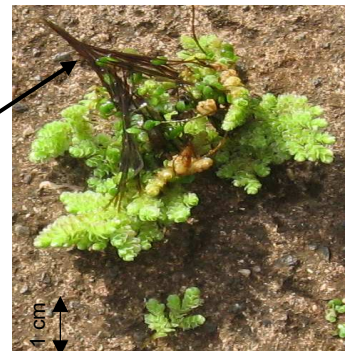


Water fern

For comparison)

Multiple dark
brown roots

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



References and further reading:

Blamey, M, Fitter, R and Fitter, A (2003) "*The Wild Flowers of Britain and Ireland. The Complete Guide to the British and Irish Flora*". A & C Black
Preston, C D and Croft, J M (1997) "*Aquatic plants in Britain and Ireland*". Harley Books
Preston, C D, Pearman, D A and Dines, T A (editors) (2002) "*New Atlas of the British and Irish Flora*". Oxford University Press
Stace, C (1999) "*Field Flora of the British Isles*". Cambridge University Press
Photos from: Olaf Booy, Anne Halpin, Peter Llewellyn, Alisdair Mason, Max Wade

Sustainability at the heart of a living, working, active landscape valued by everyone.

Adapted for Northern Ireland
Environment Agency 2020