



Water fern - *Azolla filiculoides*

A very small free-floating water plant that forms dense mats. Unmistakeable when in its red form and relatively easy to distinguish from duckweeds in its green form. Can be seen most months of the year, but tends to die off over winter. Introduced for ornamental use in ponds and aquaria in the late 1800s and has spread rapidly throughout England in the last 50 years. Infrequent in Scotland and Northern Ireland. 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.

Management Options:

Biological Treatment

Inundative biological control using the Azolla weevil - *Stenopelmus rufinasus*.

- Suitability:** Weevils exists in the wild and may cause spontaneous disappearance of the water fern. Treatment best applied early in the season, before the plant becomes widespread. Bio-control available from www.azollacontrol.com.
- Equipment:** Azolla weevil - *Stenopelmus rufinasus*. Life jacket and any other personal protective equipment deemed necessary after risk assessment.
- Efficiency:** Good. Available via the internet from CABI. Best released early in the growing season.
- Constraints:** Bio-control is unlikely to survive after the Azolla has disappeared and will need to be reintroduced if the problem reoccurs.

Time Scale

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Biological Treatment												