



# Management Measurements for Widely Spread Species (WSS) in Northern Ireland

## Curly waterweed (*Lagarosiphon major*)

As per Article 19 requirement of EU Regulation 1143/2014 *on the prevention and management of the introduction and spread of invasive alien species*

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

<b>Curly waterweed <i>Lagarosiphon major</i></b>	
<b>Description</b>	Native to Southern Africa. Perennial, a totally submerged dioecious plant. Leaves are strongly curved and whorled around the stem, though are spirally arranged on the lower part of the stem. Can grow to 3m long completely submerged.
<b>NI Status</b>	Scattered across Northern Ireland. Occurs in still or very slow-flowing water, principally eutrophic, canals, ponds, lakes and gravel pits.
<b>Pathways</b>	Widely sold, often as <i>Elodea crista</i> , as an aquarium and garden pond plant ('oxygenating plants'). Following accidental release, as there are no male plants in the UK or Ireland, spread was through fragmentation via wind dispersal, boat movements, angling equipment and potentially waterfowl. Detached stems sink and can root from the nodes. Non-standardised naming and misidentification in the trade, can lead to <i>L. major</i> being traded under an incorrect name.
<b>Aim</b>	To contain and, where possible, reduce the extent of curly waterweed with localised eradications being carried out in high priority areas.
<b>Objectives</b>	<ol style="list-style-type: none"> <li>1. Ensure strict biosecurity when working in proximity to <i>L. major</i> to avoid further spread.</li> <li>2. Eradicate small populations of curly waterweed locally, prioritising especially vulnerable sites (e.g. ASSIs) - where feasible.</li> <li>3. Where populations are discovered in new, high priority sites (e.g. ASSIs) attempt eradication, and revisit later in the season and in subsequent years (where feasible).</li> </ol>
<b>Prevention</b>	
<b>Border and pathway actions</b>	<ul style="list-style-type: none"> <li>- Curly waterweed is already widely established in a number of locations in Northern Ireland.</li> <li>- Under the EU Invasive Alien Species Regulation, as well as Article 15 (2) of the Wildlife (Northern Ireland) Order 1985, it is an offence to plant this species, or otherwise cause it to grow, in the wild.</li> <li>- Under the EU Invasive Alien Species Regulation it is also an offence to import into the EU, keep, grow or cultivate, transport (to, from or within the EU; except to facilitate eradication), place on the market, use or exchange this species - unless there are specific exemption or permit.</li> <li>- ID sheet developed and deployed to border staff - Border Force, Portal Inspectors and Plant Health Inspectorate (FS), etc.</li> </ul>



	<ul style="list-style-type: none"> <li>- Liaison with Wildlife Crime Northern Ireland (PAWNI) to ensure species is not being traded.</li> </ul>
<b>Stakeholder communications</b>	<ul style="list-style-type: none"> <li>- Continue to raise public and other stakeholder awareness of non-native invasive aquatic plants and provide advice including guidance on control methods and identification information.</li> <li>- Northern Ireland versions of awareness raising campaigns - Check Clean Dry (<a href="http://invasivespeciesireland.com/what-can-i-do/check-clean-dry/">http://invasivespeciesireland.com/what-can-i-do/check-clean-dry/</a>); Be Plant Wise (<a href="http://invasivespeciesireland.com/what-can-i-do/be-plant-wise/">http://invasivespeciesireland.com/what-can-i-do/be-plant-wise/</a>); to alert water users, gardeners and retailers to the threat the species poses.</li> <li>- Traders are not permitted to purchase or sell this species.</li> <li>- Gardeners and land owners are permitted to keep plants of this species which are already growing on their land. They must act responsibly and not allow or encourage it to spread. Owners should consider safely removing and disposing of any plant covered by the IAS Regulation by composting or burning.</li> <li>- Guidance is provided in the Horticultural Code of Practice <a href="https://invasivespeciesireland.com/wp-content/uploads/2010/07/Horticulture-Code-Final.pdf">https://invasivespeciesireland.com/wp-content/uploads/2010/07/Horticulture-Code-Final.pdf</a> ;</li> </ul>
<b>Early detection and rapid response</b>	
<b>Surveillance</b>	<ul style="list-style-type: none"> <li>- A new, dedicated surveillance mechanism is not necessary as a number of existing recording schemes allow reporting of this species:</li> <li>- In Northern Ireland species records are entered to CEDaR online recording via <a href="http://www2.habitas.org.uk/records/ISI">www2.habitas.org.uk/records/ISI</a> or via the Invasive Species Ireland website - <a href="http://invasivespeciesireland.com/report-sighting/">http://invasivespeciesireland.com/report-sighting/</a>. Entering a record generates an email to the Northern Ireland Environment Agency (NIEA) Invasive Species Team.</li> <li>- Wildlife recording Apps are available which allow users to report sightings of invasive plants.</li> <li>- Relevant Government agencies such as the Northern Ireland Environment Agency, DfI Roads/Rivers, AFBI, Forest Service &amp;, Loughs Agency record the presence of non-native invasive species when they are encountered as a part of their work.</li> <li>- Non-Governmental Organisations (e.g. Rivers and Fishery Trusts, Angling Clubs and Boards, Wildlife Trusts, etc.) undertake surveys of freshwater habitats and report incidental sightings of non-native invasive species.</li> <li>- All NI Councils to also record and report presence of non-native invasive species on their estates.</li> </ul>

<b>Rapid response</b>	<ul style="list-style-type: none"> <li>- In certain areas of NI a rapid eradication following a confirmed sighting may be appropriate, particularly in cases where it is first discovered in a new catchment. Once widely established, sustainable control is extremely difficult.</li> </ul>
<b>Long-term management</b>	
<ul style="list-style-type: none"> <li>- When curly waterweed is not yet widespread within a catchment it should be managed to reduce its impacts and contain it, where feasible.</li> <li>- Physical control is difficult as small fragments can break off, float away and propagate. Hand-pulling may, however, be effective for small infestations.</li> <li>- Shading using jute matting has been used to achieve effective control in Northern Ireland and the Republic of Ireland.</li> <li>- The GB Environment Agency has produced a guidance document - Aquatic and riparian plant management: controls for vegetation in watercourses. Technical guide Project: SC120008/R2 <a href="https://www.gov.uk/government/publications/aquatic-and-riparian-plant-management-controls-for-vegetation-in-watercourses">https://www.gov.uk/government/publications/aquatic-and-riparian-plant-management-controls-for-vegetation-in-watercourses</a>.</li> <li>- Scottish Natural Heritage have produced guidance - Vegetation Management in Nature Conservation: Integrated Pest Management Handbook <a href="http://www.snh.org.uk/pdfs/publications/heritagemanagement/Integrated%20Pest%20Management%20Handbook.pdf">http://www.snh.org.uk/pdfs/publications/heritagemanagement/Integrated%20Pest%20Management%20Handbook.pdf</a></li> <li>- There is currently no herbicide product approved for use in Northern Ireland for the treatment of submerged macrophytes.</li> </ul>	
<b>Research</b>	
<ul style="list-style-type: none"> <li>- Research, in the Republic of Ireland and New Zealand, has been undertaken to investigate options for the biological control of this species. Should this prove to be feasible then it could offer a cost effective and sustainable solution to help manage the species in the longer term.</li> </ul>	

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For further information:

Northern Ireland Environment Agency  
Biodiversity and Conservation Science Unit  
Klondyke Building  
Cromac Avenue  
Gasworks Business Park  
Belfast  
BT7 2JA

Tel: 028 9056 9558

Email: [BSCGeneral@daera-ni.gov.uk](mailto:BSCGeneral@daera-ni.gov.uk)

[www.daera-ni.gov.uk](http://www.daera-ni.gov.uk)



An Agency within the Department of  
**Agriculture, Environment  
and Rural Affairs**

[www.daera-ni.gov.uk](http://www.daera-ni.gov.uk)



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