



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.

Curly waterweed <i>Lagarosiphon major</i>	
Description	Native to Southern Africa, a perennial, totally submerged dioecious plant with adventitious roots that attach to substrate. Leaves are strongly curved and whorled around the stem, though are alternatively spirally arranged on the lower part of the stem. Can grow to 6m long completely submerged.
NI Status	Scattered across Northern Ireland. Occurs in still or very slow-flowing water, principally eutrophic, canals, ponds, lakes and gravel pits. For current distribution visit NBN Atlas Northern Ireland .
Pathways	Widely sold, often as <i>Elodea crispata</i> , as an aquarium and garden pond plant ('oxygenating plants'). Accidental/deliberate release followed and 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 (sometimes deliberate), can lead to <i>L. major</i> being traded under an incorrect name.
Aim	To contain and, where possible, reduce the extent of curly waterweed with localised eradications being carried out in high priority areas.
Objectives	<ol style="list-style-type: none"> 1. Ensure strict biosecurity when working in proximity to <i>L. major</i> to avoid further spread. 2. Eradicate small population <i>L. major</i> locally, prioritising especially vulnerable sites (e.g. ASSIs) and in areas where plant fragments are likely to escape to other water bodies. 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. 4. Reduce distribution across N.I. by 50% by 2030. 5. Widespread restoration of native species and habitats
Prevention	
Border and pathway actions	<ul style="list-style-type: none"> - Curly waterweed is already widely established in a number of locations in Northern Ireland. - Under the EU Invasive Alien Species Regulation it is an offence to plant this species, or otherwise cause it to grow, in the wild. - 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



	<p>on the market, use or exchange this species - unless there are specific exemptions or permits.</p> <ul style="list-style-type: none"> - ID sheet developed and deployed to border staff - Border Force, Portal Inspectors and Plant Health Inspectorate (FS), etc. - Liaison with Wildlife Crime Northern Ireland (PAWNI) to ensure species is not being traded.
<p>Stakeholder communications</p>	<ul style="list-style-type: none"> - Continue to raise public and other stakeholder awareness of invasive non-native aquatic plants and provide advice including guidance on control methods and identification information. - Awareness campaigns (Check/Clean/Dry and Be Plant Wise) to alert water users, gardeners and retailers to the threat the species poses. - Gardeners who have it growing in their private ponds, must act responsibly and not cultivate it or allow its fragments to spread further inside or outside of their land-holding and if in a sensitive area, they may be asked to remove it completely to avoid risk. Owners should consider safely removing and disposing of any plant covered by the IAS Regulation by composting or burning or transfer to landfill in line with 'Be Plant Wise' campaign http://invasivespeciesireland.com/what-can-i-do/be-plant-wise/ - Traders are not permitted to purchase or sell this species.
<p>Early detection and rapid response</p>	
<p>Surveillance</p>	<ul style="list-style-type: none"> - A new, dedicated surveillance mechanism is not necessary as a number of existing recording schemes allow reporting of this species: - In Northern Ireland species records are entered to CEDaR online recording via www2.habitas.org.uk/records/ISI or via the Invasive Species Ireland website - http://invasivespeciesireland.com/report-sighting/. Entering a record generates an email to the Northern Ireland Environment Agency (NIEA) Invasive Non-Native Species (INNS) Team. - The Botanical Society of the British Isles Map Scheme also compiles comprehensive distribution maps for plants across the UK. - The Biological Records Centre (www.brc.ac.uk) collects presence records of all wildlife species in the UK through a network of voluntary recorders on iRecord online or by the iRecord app. The BRC provides the opportunity to download distribution data and visualise it as customisable maps, via the National Biodiversity Network Atlas Northern Ireland (https://northernireland.nbnatlas.org/). - Relevant Government agencies such as DfI Roads/Rivers, AFBI, Loughs Agency, Forest Service and Northern Ireland Environment Agency record the presence of invasive non-native species as a part of their work and will then initiate

	<p>management measures for WSS on their own sites.</p> <ul style="list-style-type: none"> - Non-Governmental Organisations (e.g. Rivers and Fishery Trusts and Boards, Wildlife Trusts, etc.) undertake surveys of freshwater habitats and report incidental sightings of invasive non-native species and will then initiate management measures for WSS on their own sites. - All N.I. Councils to also record and report presence of invasive non-native species on their estates and initiate management measures for WSS on their own sites.
Rapid response	<ul style="list-style-type: none"> - In certain areas of N.I. 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.
Long-term management	
<ul style="list-style-type: none"> - When curly waterweed is not yet widespread within a catchment it should be managed to reduce its impacts and contain it, where feasible. - Physical control is difficult as small fragments can break off, float away and propagate. Hand-pulling may, however, be effective for small infestations. - Shading using jute matting has been used to achieve effective control in N.I. and the Republic of Ireland. - Guidance on the management of curly waterweed is available on the Invasive Species Ireland website - http://invasivespeciesireland.com/species-accounts/established/freshwater/curly-waterweed - There is currently no herbicide product approved for use in Northern Ireland for the treatment of submerged macrophytes. 	
Research	
<ul style="list-style-type: none"> - 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. 	

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