



Management Measures for Widely Spread Species (WSS) in Northern Ireland

Nuttall's waterweed (*Elodea nuttallii*)

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

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Nuttall's waterweed - <i>Elodea nuttallii</i>	
Description	Native to North America. It is a totally submerged perennial plant. It can grow up to several meters in length. It is very similar to <i>Elodea Canadensis</i> , however it has shorter and much thinner leaves. Its leaves are flat and 6-13mm long and 1.5mm wide, they are folded along the midrib and bent like claws.
NI Status	Spread across Northern Ireland. Occurs in still or very slow-flowing water, principally eutrophic, canals, ponds and lakes. <i>E. nuttallii</i> is replacing <i>E. canadensis</i> at many sites.
Pathways	Introduced 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>E. nuttallii</i> being traded under an incorrect name.
Aim	To contain and, where possible, reduce the extent of Nuttall's 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>E. nuttallii</i> to avoid further spread. 2. Eradicate small populations of Nuttall's waterweed locally, prioritising especially vulnerable sites (e.g. ASSIs) - where feasible. 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).
Prevention	
Border and pathway actions	<ul style="list-style-type: none"> - Nuttall's waterweed is already widely established in a number of locations in Northern Ireland. - Under the EU Invasive Alien Species Regulation 2014 it is an offence to keep; transport to or from Northern Ireland to or from any place within Great Britain, or within Northern Ireland, (except where such transportation is of species to facilities in the context of eradication); place on the market; use or exchange; grow or cultivate; (including in a contained holding); or release into the environment. - 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.



Stakeholder communications	<ul style="list-style-type: none"> - 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. - Northern Ireland versions of awareness raising campaigns - Check Clean Dry (http://invasivespeciesireland.com/what-can-i-do/check-clean-dry/); Be Plant Wise (http://invasivespeciesireland.com/what-can-i-do/be-plant-wise/); to alert water users, gardeners and retailers to the threat the species poses. - Traders are not permitted to purchase or sell this species. - 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. - Guidance is provided in the Horticultural Code of Practice https://invasivespeciesireland.com/wp-content/uploads/2010/07/Horticulture-Code-Final.pdf;
Early detection and rapid response	
Surveillance	<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 Species Team. - Wildlife recording Apps are available which allow users to report sightings of invasive plants. - Relevant Government agencies such as the Northern Ireland Environment Agency, DfI Roads/Rivers, AFBI, Forest Service & Loughs Agency record the presence of non-native invasive species when they are encountered as a part of their work. - 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. - All NI Councils to also record and report presence of non-native invasive species on their estates.
Rapid response	<ul style="list-style-type: none"> - In certain areas of Northern Ireland 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 Nuttall's waterweed is not yet widespread within a catchment it should be managed to reduce its impacts and contain it, where feasible. 	

- Harvesting and cutting can be a useful method of control where *E. nuttallii* is already established. Repeated harvesting can possibly deplete available nutrients and result in a long-term reduction. Harvesting and cutting can result in further dispersal of *E. nuttallii* therefore this should only be used when there is no risk of plant fragments being spread by water currents or machines.
- Hand-pulling may be effective for small infestations.
- Covering or shading *E. nuttallii* plants may also be an effective method of control. Planting trees on the south side of water bodies or placing opaque sheets or jute matting may give an adequate amount of shading to control growth.
- Where feasible, regulation of water level in winter to dry out or, in colder climates to freeze *E. nuttallii*, have been used with some success.
- The GB Environment Agency has produced a guidance document - Aquatic and riparian plant management: controls for vegetation in watercourses. Technical guide Project: SC120008/R2 <https://www.gov.uk/government/publications/aquatic-and-riparian-plant-management-controls-for-vegetation-in-watercourses>.
- Scottish Natural Heritage have produced guidance - Vegetation Management in Nature Conservation: Integrated Pest Management Handbook <http://www.snh.org.uk/pdfs/publications/heritagemanagement/Integrated%20Pest%20Management%20Handbook.pdf>
- Biological control using herbivorous fish such as Grass carp (*Ctenopharyngodon idella*) and other bottom-feeding fish is widely used and can give good results. However, using fish to control *E. nuttallii* may also have further negative effects.
- There is currently no herbicide product approved for the treatment of submerged macrophytes.

Research

- No known current research.



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