

Non-Native Invasive Plants: A Widespread Problem

Non– Native Invasive Plants – What are they?

Many invasive plant species are non-native and have a method of reproduction, growth or persistence which makes them extremely successful within the environment. They are a nationwide problem and are spreading throughout the UK. All these species are potentially very difficult to control as they have no native pests. Many of the UK's native plant species are suffering as the consequence of being out-competed for light and nutrients where they are prevalent. These plants left unmanaged pose a serious implication for the biodiversity of an area.



Japanese Knotweed: One of the most persistent and difficult to eradicate non-native invasive plants.

Do's and Don'ts for Eradication

Do...

- **take immediate action!**
- record any sightings through the 'iRecord' app
- obtain advice from the Environment Agency if planning to use herbicides* on or near a watercourse;
- remove all non-native invasive plant debris from near a watercourse after operations;
- seek advice from the Environment Agency on disposal of plant material.

Don't...

- delay in doing something!
- dispose of cut material in the water body!
- allow the plant to spread to nearby water bodies;
- transport any plant material away from the site
- use non-native invasive plants in habitat restoration projects.

Important Information for Landowners and Tenants

As a landowner or the tenant of an area, it is not an offence to have an invasive species on your land, but **it is an offence** under the **Wildlife and Countryside Act (1981)**, **"to plant or otherwise cause to grow in the wild any plant listed in Schedule 9 of the Act."** It is therefore better to take positive steps to eradicate plants before they establish, become out of control and become a problem to others and expensive to manage in the future.

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Which Plants Pose a Problem?

Some of the species are terrestrial, but may be found on the banks of rivers, streams and ditches...

Japanese Knotweed

This is a widespread and troublesome bankside species due to its high regeneration capacity. It forms fleshy red/green stems with red/purple flecks and can grow between 2-3m tall. There is an underground root system which can extend 7m from the plant and reach a depth of 3m or more. A piece of rhizome as small as a little fingernail can grow into a new plant.

Control - This species is notoriously difficult to control once it has become established. The best method of control is that of stem injection using roundup (1:10 dilution) in August or September, when the shoots are more than 1.5m tall.

A scythe is the only recommended method of cutting and should be carried out every 2-4 weeks to reduce above and below ground biomass. STRIMMING SHOULD NOT BE UNDERTAKEN as this will only lead to the spread of the plant. All stems should be burnt on site or removed to landfill (licence required). Whenever possible, you should keep the amount of knotweed excavated to a minimum and focus on treating it in its original location. If burying or removing spoil to landfill you must ensure the knotweed is completely dead using chemical treatment. Please refer to the [INNSA Knotweed Code of Practice](#) which is available on the Invasive Non-Native Species Association website.



Japanese Knotweed in leaf during the summer



Himalayan Balsam in Flower

Himalayan Balsam

An annual plant which will grow 2–3m in height. Each plant will produce approx. 800 seeds, which are released explosively and can travel up to 7m distance. The seeds are easily transported by water.

Control - The aim should be to prevent seeds from being spread in autumn. This can be achieved by spraying with glyphosate before June to prevent flowering or by topping the flower heads during the summer months. Cutting, mowing, strimming or pulling the plant will be effective. Cutting or pulling should be repeated annually until plants are eradicated. Plants can be burned or composted, unless seeds present.

Giant Hogweed

A perennial plant which takes around 4 years to mature and flower. It forms dense colonies and suppresses growth of native plants leading to banks bare of vegetation and erosion problems. Each flower head produces around 50,000 seeds which can be easily dispersed along watercourses.

Control - The aim should be to prevent flowering and ensuring seeds are not spread. Cutting or strimming is NOT recommended as the sap will cause a major skin reaction. Spraying with Roundup in April/May or digging out the crown below ground to 10-15cm in March or early April provides good control.

Fully protective clothing should be worn when dealing with this plant.



The leaves of the Giant Hogweed
(Photograph courtesy of the Environment Agency)

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Some of the other non-native invasive species are aquatic...

Floating Pennywort

This species is found in slow moving dykes and ditches and forms dense, interwoven mats of vegetation. The species grows quickly and stems can grow up to 20cm in a day! It is difficult to control due to its vigorous growth, relative resistance to chemical control and vegetative reproduction.

Control - Follow directions below...



Floating Pennywort
Photograph courtesy of Jonathan Newman, Centre for Aquatic Plant Management



Parrots Feather in Broadland
(Sketch courtesy of Jonathan Newman, Centre for Aquatic Plant Management)

Parrot's Feather

Will be found in slow moving or still waters rich in nutrients. It produces emergent and submerged shoots which give it its characteristically feathery appearance. The stems are brittle and a new plant can be propagated vegetatively from small stem fragments. It can also grow as a terrestrial plant when a pond or ditch dries up!

Control - Follow directions below...

Australian Swamp Stonecrop

This plant, also known as Crassula, owes its success to its ability to colonise virtually any suitable still or slow moving freshwater habitat of highly variable water chemistry. It shows vigorous, year round growth and can establish equally well on damp ground or in water up to 3m deep. It is easily spread and a new plant can easily develop from a small fragment.

It quickly out-competes native vegetation and maintains dominance in an area by rapid growth and the uptake of almost all available nutrients.

Control - Follow directions below, but be aware that regular treatment is required, and at least two applications may be necessary each year. There is no effective herbicide* treatment for submerged Crassula. Draw down or drain the waterbody, if possible, and treat as emergent growth.



Australian Swamp Stonecrop in the
Wensum Valley

Control of the species above

Removal can be very effectively in small areas, but all fragments should be removed to prevent regrowth and downstream spread.

Removed material should be left on the bank, well away from the water. This action should be followed up with hand pulling or spot treatment with chemicals.

Chemical control involves applying glyphosate at 6 litres/ha to emergent stands from March to October. Regular annual treatment is required, and at least two applications will be necessary each year. The use of an adjuvant will improve efficacy.

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Disposal of Non-Native Weeds...

The correct disposal of plant material is vital. It is best to contact the Environment Agency for disposal advice as there are Regulations covering the composting, burning and burial of different plant materials.

Japanese Knotweed, will require transfer to a licensed landfill site or, if burning on site, further considerations will need to be discussed.



Health and Safety Issues!...

- Take care using herbicides* and ensure all mixing and application is carried out in accordance with the manufacturers instructions.
- Before using herbicide* near a watercourse, obtain a licence from the Environment Agency and should be carried out by a trained operative. There is often a high risk of slipping on banks and muddy surfaces when carrying equipment or chemicals.
- Take extreme care when working with Giant Hogweed. The sap can cause SERIOUS skin blistering.

* The use of professional herbicide products requires the appropriate National Proficiency Tests Council (NPTC) certification. Application of Herbicide near water, requires permission from the Environment Agency.

Prevent the spread...

1. Familiarise yourself with the plant so you can easily recognise it.
2. Record the location of any suspected specimens accurately, using the [iRecord App](#), [What 3 Words App](#) or [Grid Reference Finder](#).
3. Bio- Security is key: **“Check Clean Dry”** any equipment that has been on or in the water and before using it again or re-launching.
4. Report all sightings to the Environment Agency’s 24/7 hotline: 0800 807060



Further Guidance can be found at....

Environment Agency | www.environment-agency.gov.uk

Norfolk Non Native Species Initiative | <http://www.nnnsi.org/>

GB Non-Native Species Secretariat | <http://www.nonnativespecies.org/>

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