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STOP!

**The spread of
invasive species and
harmful pathogens**



**Best Practice for Control of
Japanese Knotweed
Fallopia japonica**

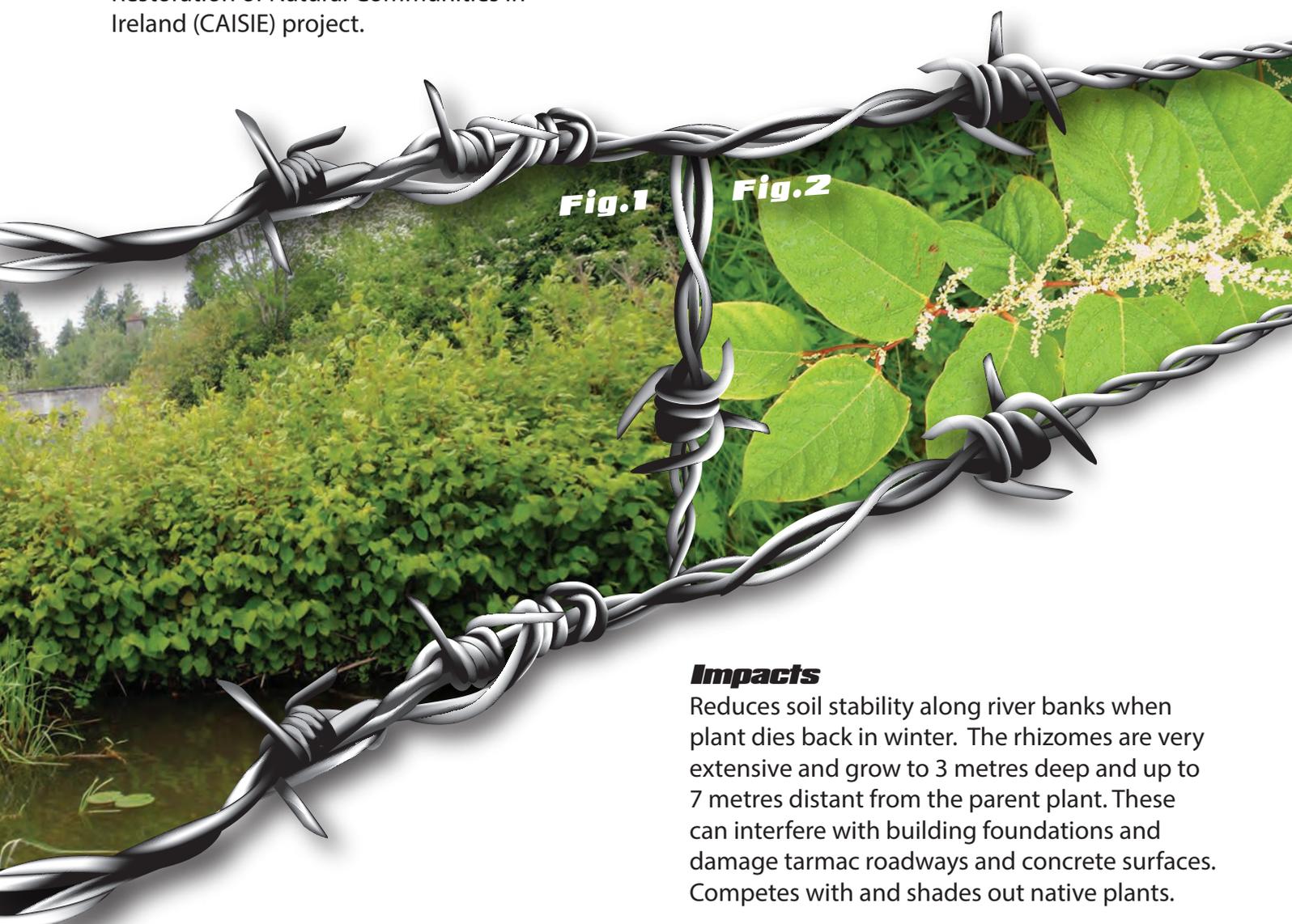


Scope

This best practice document provides guidance to stakeholders on effective measures to control the highly invasive riparian plant Japanese knotweed *Fallopia japonica* (and related Knotweed species) based on the approach used by Inland Fisheries Ireland during the EU LIFE+ funded Control of Aquatic Invasive Species and Restoration of Natural Communities in Ireland (CAISIE) project.

Identification

Tall (to 3 m) bank-side plant with hollow mottled stems. Grows in dense thickets. Leaves are ovate or spade-shaped with a straight base and acute point. Flowering occurs in late summer and flowers are white or cream arranged in loose clusters. An identification sheet and video can be found here: <http://www.fisheriesireland.ie/Invasive-species-list/curly-leaved-waterweed.html>



Impacts

Reduces soil stability along river banks when plant dies back in winter. The rhizomes are very extensive and grow to 3 metres deep and up to 7 metres distant from the parent plant. These can interfere with building foundations and damage tarmac roadways and concrete surfaces. Competes with and shades out native plants.

Pre-control assessment

Establish the distribution and abundance of the weed in the target area: Mark the location of all weed stands present on a map or using a GPS and record the area infested. The percentage cover and speciation of any native vegetation encountered should also be recorded. Data should be entered into a GIS mapping system if possible.

Effective control measures

Herbicide treatment using glyphosate (as Round-up Biactive) has been successfully used by IFI during the EU LIFE+ CAISIE project to control Japanese knotweed. This herbicide can be used as a foliar application, through stem injection or as stump cut application where the stems are cut and the herbicide is directly applied immediately after cutting. Treatment can be carried out between May and October. For best results, it is recommended that foliar treatment is conducted in July, with follow-up treatment in September (application rate of 5 litres per hectare). For stem injection, treatment is most effective when applied to flowering stems (late summer to October). For stump cut application, treatment is most effective in September / October before senescence occurs.



Fig.3

Stem injection and stump cut application can be used to treat individual knotweed canes when they are interspersed among native vegetation, thus avoiding non-target impacts. For stem injection, glyphosate should be injected into the cane between the 1st and 2nd node above the stem base.

For stump cut application, individual stems should be cut 20 cm above their base and 4 cm above a node, and the cut surface should be hollowed out to create a well. The herbicide can then be applied within 15 minutes of cutting with a pipette. For both treatments, a 10 ml dose per stem is recommended (made up of 5 parts water and 1 part glyphosate). For extensive stands, it may be also necessary to mechanically excavate a 7 m area around the stand to 3 m depth to remove any knotweed rhizomes present. The excavated spoil should be disposed of in a biosecure manner (e.g. removed to a licenced landfill facility). Excavation equipment should be disinfected on site after use to prevent any further spread of the knotweed outside of the treatment area as plants will regenerate from rhizomes fragments remaining in the spoil. Excavation is a costly option and every effort should be made to treat the knotweed stands in situ, if feasible. Repeat herbicide treatment will be necessary over a three to four year period to achieve eradication.



Herbicide application should only be carried out by suitably qualified contractors or operators, with strict reference to the product label, local land use, health and safety considerations and any pertinent regulations. Herbicide should be applied in a manner (e.g. using spot treatment when possible) to minimise drift to any adjacent non-target native plant species present. Knapsack sprayers are most appropriate for bankside work with long-lances useful for treating hard to reach areas.

Requirements: Glyphosate herbicide; personal protective equipment, qualified contractor / operators, knapsack sprayer and long-lance.

Post-control monitoring

In order to properly evaluate the efficacy of the control measures implemented and monitor the natural recovery of the native habitat, post-control assessment is necessary. Such monitoring should be conducted four weeks after the control operations have concluded to assess the need for further control and, additionally, on at least an annual basis. Re-survey the area targeted in the same manner used during the pre-control assessment and compare the results. Consider appropriate remediation measures to enhance habitat recovery, if required, in consultation with appropriate experts and agencies. This may include the re-planting, re-location or transplantation of extirpated native species

Additional considerations

An appropriate risk assessment, which includes Health & Safety considerations, should be carried out before any control or survey work is undertaken. Permission or licences from the appropriate authorities may be required to carry out invasive species control work in some locations such as Natural Heritage Areas, Special Areas of Conservation, Special Protection Areas and waterways. The requirements listed under each control method are not prescriptive and only provide information on the principal items required.



Further information

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www.fisheriesireland.ie/invasivespecies

www.caisie.ie



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The CAISIE Project is an EU Life+ funded programme co-financed by the National Parks and Wildlife Service.

The primary purpose of the project is to control and possibly eradicate aquatic invasive species in Lough Corrib and the Grand Canal and Barrow Navigation, the development and dissemination of effective control methods and raising the awareness of such species through stakeholder engagement.

Please report aquatic invasive species sightings to info@caisie.ie or Lo-Call 1890 34 74 24





Be biosecurity aware!

<http://www.fisheriesireland.ie/invasive-species/invasive-species.html>

For information and to report
LO-CALL: 1890 34 74 24

The CAISIE project is coordinated by Inland Fisheries Ireland and funded with the contribution of the LIFE financial instrument of the European Community, with co-financing from the National Parks and Wildlife Service.