

## Japanese Knotweed, *Fallopia japonica*



### Overview

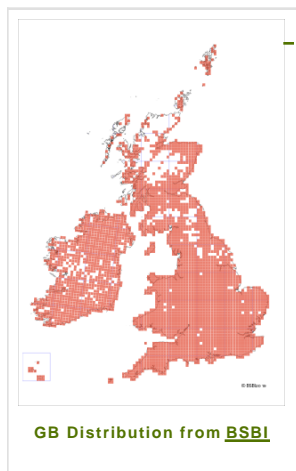
#### Short description of *Fallopia japonica*, Japanese Knotweed

Herbaceous perennial, with stems typically about 2m tall and an extensive system of rhizomes. It has large, roughly triangular leaves with truncate (not cordate (heart-shaped)) bases.

#### Description of *Fallopia japonica*, Japanese Knotweed status in GB

Japanese knotweed is an invasive non-native weed, mainly in urban areas where it is considered a nuisance in property development, because plants regrowing from rhizomes can come up through gaps in flooring in conservatories and patios.

### Distribution map



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#### Habitat summary: *Fallopia japonica*, Japanese Knotweed

Disturbed habitats in urban areas, by water courses, canals and on waste ground, usually in full sunshine. It is shade tolerant and occasionally invades woodland. Long established stands by rivers tend to have a similar vernal ground flora to W6 *Alnus glutinosa* woods, with *F. japonica* providing the canopy layer during the summer months.

### Overview table

Environment:	Terrestrial
Species status:	Non-Native
Native range:	Eastern Asia
Functional type:	Land plant
Status in England:	Non-Native
Status in Scotland:	Non-Native
Status in Wales:	Non-Native
Location of first record:	v.c.41
Date of first record:	1886

### Invasion history: *Fallopia japonica*, Japanese Knotweed

#### Origin

Japanese knotweed comes originally from Japan, where it is a rare species, although it is now established in many parts of the world.

#### First Record

Introduced to Europe (in the Netherlands) in 1849. First recorded in the wild in GB at Maesteg, South Wales, in 1886.

#### Pathway and Method

It was introduced to gardens as an ornamental 'architectural' plant, and it is still widely grown in larger gardens and parks. Plants and fragments of root, if discarded, can become established in the wild, particularly along riverbanks where propagules are easily dispersed.

#### Species Status

It is invasive in GB and elsewhere (such as Europe) outside its native range. It does not tend to spread in semi-natural situations, but is found mostly in disturbed and ruderal habitats.

## Ecology & Habitat: *Fallopia japonica*, Japanese Knotweed

#### Dispersal Mechanisms

Dispersal is by deliberate or inadvertent human activity, except along rivers, where root pieces can be washed downstream during floods and subsequently become established elsewhere.

#### Reproduction

Plants in GB are a male-sterile clone, so no seed is produced, although it can hybridise with other species of *Fallopia*.

#### Known Predators/Herbivores

None known.

#### Resistant Stages

All stages are viable; it does not produce seed in GB.

#### Habitat Occupied in GB

Mostly urban areas and riverbanks. Sometimes it is found established on the edges of arable fields and other places where garden waste or topsoil has been dumped.

## Distribution: *Fallopia japonica*, Japanese Knotweed

Very widespread in GB, although it is generally not very abundant except in urban areas - particularly some cities in South Wales.

## Impacts: *Fallopia japonica*, Japanese Knotweed

#### Environmental Impact

The ecosystem impact of this species is poorly documented. It usually occurs in highly degraded urban situations where the native flora is already impoverished. However, alteration in habitat structure and biological communities (caused by Japanese Knotweed and other riparian invasive non-native species) is known to impact directly on salmonid fisheries. As well as hindering conservation efforts & the viability for angling, the presence of these plant species pose great management and access concerns if left uncontrolled (The Living River Project - The River Avon System Non-native Invasive Plant Strategy).

#### Health and Social Impact

There are no documented health impacts. Social impacts are apparent when disputes over control, or loss of land occur.

#### Economic Impact

The high economic impact is due to legislation that makes its eradication a legal requirement and the cost of its disposal expensive. Eradicating it from construction sites can cost well over £1,000 per square metre and, as a controlled waste, it can be expensive to dispose of the 'contaminated' topsoil. The total global cost of its control could be hundreds of millions of pounds per annum. Many sources claim that it can grow through solid concrete, but this claim is not supported by any published evidence and seems unlikely to be true.

## References & Links: *Fallopia japonica*, Japanese Knotweed

#### Identification

<http://www.cabi.org/japaneseknotweedalliance/default.aspx?site=139&page=52>

#### Biology, ecology, spread, vectors

<http://archive.defra.gov.uk/wildlife-pets/wildlifemanagement/non-native/knotweed.htm>

Forman, J. & Kesseli, R.V. (2003) Sexual Reproduction in the Invasive Species *Fallopia japonica* (Polygonaceae). *American Journal of Botany*, **90** (4), 586-592.

#### Management and impact

Djeddour, D.H. & Shaw, R.H. (2010) The Biological Control of *Fallopia Japonica* in Great Britain: Review and Current Status. *Outlooks on Pest Management*, **21** (1), 15-18.

Kabat, T.J., Stewart, G.B., & Pullin, A.S. (2006) Are Japanese knotweed (*Fallopia japonica*) control and eradication interventions effective? *Systematic Review No. 21. Collaboration for Environmental Evidence*.

**General**

Knotweed Alliance: <http://www.cabi.org/japanese-knotweed-alliance>

BSBI: <http://sppaccounts.bsbi.org.uk/content/fallopia-japonica-f-sachalinensis-f-x-bohemica>

Defra: <http://archive.defra.gov.uk/wildlife-pets/wildlife-management/non-native-knotweed.htm>