



# Hybrid Japanese Knotweed

*Fallopia x bohemica* Syn. *Polygonum x bohemican*, *Reynoutria x bohemica* (Aka Bohemian knotweed, hybrid knotweed)

Provincial Designation:  
Prohibited Noxious



Japanese Knotweed Alliance



Manual of the Alien Plants of Belgium

## Overview:

Hybrid Japanese knotweed is a tall, rhizomatous, perennial herb that is a cross between Giant knotweed (*F. sachalinensis*) and Japanese knotweed (*F. japonica*).<sup>\*</sup> It is fast growing, long lived, and reproduces primarily vegetatively via rhizomes. Roots can extend 2-7 m away from the root crown. Fragments of rhizome as little as 0.7 gram can generate new plants.<sup>2</sup> It appears to be more vigorous and persistent than its parents. It is often male-fertile enabling it to backcross with either parent.<sup>4</sup> Some plants are capable of producing seed but that happens infrequently.

New shoots emerge in the spring, flowering occurs August through September, and then the leaves and shoots die back in winter.

Ecological impacts are: crowding out native vegetation, knotweed leaf litter provides a lesser quality of nutrients to streams than native vegetation, leaves banks vulnerable to erosion when plants die back in winter, can increase flood risk by blocking channels, impedes access to water for both humans and wildlife, rhizomes are able to penetrate as-

phalt, building foundations, retaining walls, and drains, causing significant damage. Rhizome-contaminated soil should be treated as controlled waste.<sup>3</sup>

Being a hybrid, this plant can easily be confused with either of its parents. The leaves of the hybrid are much larger and do not have the truncate bases of *F. japonica*.<sup>2</sup> It can most easily be distinguished by the small hairs along the veins on the underside of leaves produced early in the growing season. The hairs appear unicellular, are acute at the tips, and shorter than 0.1 mm.<sup>1</sup>

## Habitat:

Hybrid Japanese knotweed needs sufficient moisture and therefore grows in coastlands, riparian areas, and salt marshes. It grows in a variety of soil types; silt, loam, sand. It generally prefers open areas but can grow in shade.

## Identification:

**Stems:** Are erect, usually clustered, pro-

fusely branched, and grow to 1.5-2.5 m. Stems are smooth and hairless, and covered with a fine, waxy powder.<sup>1</sup>

**Leaves:** Stems (petioles) are 1-3 cm and bear a cylindrical sheath just above the base of the leaf, which is brownish and often deciduous. Leaves blades are ovate (egg-shaped), 5-25(-30) x 2-10 cm, the bases truncate to cordate, margins entire, surface smooth to slightly rough, and tipped with a cusp. Leaf undersides are minutely dotted and smooth with minute hairs along the leaf vein, shorter than 0.1 mm.<sup>1</sup>

**Flowers:** Are borne in the axils near the ends of stems. They are erect, spreading, 4-12 cm, with the peduncle (flower stem) 0.1-3.5 cm or absent. Flowers are bisexual or pistillate and occur 3-8(-15) per fascicle, white to greenish-white, and 4-6 mm. Sepals are egg-shaped to elliptic with obtuse to acute tips. The fruits are smooth, the wings flat to undulate, 1.5-2.1 mm wide at maturity, and hang downward. Seeds are dark brown, 2.6-3.2 x 1.4-1.8 mm, shiny, and smooth.<sup>1</sup>

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# Hybrid Japanese Knotweed (Continued)

## Prevention:

Desirable vegetation should be maintained in habitats suitable for knotweed invasion. Any equipment from knotweed infested areas must be thoroughly cleaned to prevent the transport of small rhizome pieces. Rhizome contaminated soil should be treated as controlled waste.<sup>3</sup>

## Control:

**Grazing:** Young shoots will be consumed by domestic livestock and this will keep it under control until grazing ceases.<sup>3</sup> Invasive plants should never be considered as forage.

**Mechanical:** Continual mowing can expend root resources if maintained through the growing season.<sup>2</sup> Pulling or digging up plants is only effective if the entire root can be removed and is only suited to new infestations. This will need to be repeated over a number of years.<sup>2</sup> Any knotweed plant material from cutting, mowing or digging should be bagged and disposed of in landfill-bound waste.

**Chemical:** Currently no selective herbicides are registered for use on hybrid Japanese knotweed. Always check product labels to ensure the herbicide is registered for use on the target plant in Canada by the Pest Management Regulatory Agency. Always read and follow label directions. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

**Biological:** Being a hybrid it is unlikely that any specialist predators will exist for *Fallopia x bohemica*. It is possible that agents restricted to *F. japonica* and *F. sachalinensis* may be effective.<sup>2</sup>

\* For more information about the genetics and ploidy refer to references 2 and 4.

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## REFERENCES

- 1 *Fallopia x bohemica* in Flora of North America. [www.efloras.org](http://www.efloras.org)
- 2 *Fallopia x bohemica*. Invasive Species Compendium. CABI, Switzerland. [www.cabi.org/isc](http://www.cabi.org/isc)
- 3 Giant knotweed and other hybrids. Japanese Knotweed Alliance. [www.cabi.org/japaneseknotweedalliance](http://www.cabi.org/japaneseknotweedalliance)
- 4 *Fallopia x bohemica* University of Leicester. [www2.le.ac.uk/departments/biology/people/bailey/res/ffb](http://www2.le.ac.uk/departments/biology/people/bailey/res/ffb)