

JAPANESE KNOTWEED

Fallopia japonica

Photo courtesy of Jan Samanek,
State Phytosanitary Administration,
Bugwood.org.

Japanese knotweed is a shrub-like perennial that is nicknamed “elephant ear bamboo” and “Mexican bamboo” because of its bamboo-like stems. It spreads quickly, forming dense thickets that displace native plants and threaten riparian ecosystems.



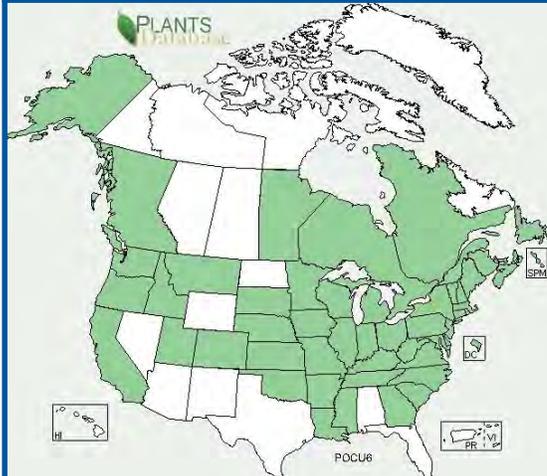
SPECIES DESCRIPTION

Japanese knotweed is an upright, shrub-like perennial that can grow to heights of over 13 ft (4 m). The leaves are wide, with a heart-shaped base that narrows to a point at the tip. Stems are smooth and hollow resembling bamboo, especially in older plants. Flowers are small and are arranged in clusters of white that appear late in the season. Dead knotweed stems can persist throughout the winter and new shoots, produced from rhizomes, form dense thickets in the spring. The dead stems and leaf litter decompose very slowly and form a deep litter layer which prevents native seeds from germinating.

NATIVE & INTRODUCED RANGES

Japanese knotweed is native to Japan, China, and parts of Korea and Taiwan. It was introduced to North America probably in the late 1800s as an ornamental plant, where it was sold in nursery catalogs all over the United States. Subsequent introductions

of knotweed occurred for erosion control and landscape screening. It can now be found throughout the eastern United States, in several western states, and is widespread throughout Pennsylvania.



BIOLOGY & SPREAD

Japanese knotweed has long, thick, underground stems called “rhizomes” which are its primary means of spread. These rhizomes are capable of producing new plant populations rapidly; often resulting in thick colonies of the species. Additionally, fragments of leaves, stems, or roots can spread naturally as water or wind sends them downstream. Japanese knotweed can also be transported to new sites in contaminated soil, as escapees of neglected gardens, or as discarded cuttings.

Photo courtesy of Jenn Grieser, New York
City Department of Environmental
Protection, Bugwood.org.

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HABITAT

Japanese knotweed is tolerant of a variety of growing conditions including full shade, high temperatures, high salinity, drought, and floods. It commonly grows in damp soil along streams and rivers, in wetlands, disturbed areas, along roadways, and around old home sites.

IMPACTS

Threat to Biodiversity

Japanese knotweed is an aggressive species that is capable of crowding out all other species of native vegetation. It emerges early in the spring and grows quickly to form dense, monotypic stands that crowd out native plants and degrade plant and animal habitat. It poses a significant threat to riparian areas where it can survive severe floods and is able to rapidly colonize scoured shores and islands. In addition, by eliminating grasses and other native plants along creeks, the banks are less stable and more likely to shear off during flooding, increasing sedimentation issues.

PREVENTION & CONTROL

Once established, populations of Japanese knotweed are extremely persistent and difficult to remove. Manual control may consist of digging out the rhizomes, or cutting the stalks; however, digging is very labor intensive and can promote further invasion by spreading the rhizome fragments. Successful eradication is not likely with cutting alone; it may require a combination of cutting and applications of herbicides. Regardless of which control method is used, if some rhizomes remain in the soil, Japanese knotweed will return once management is relaxed.



(Above) photo courtesy of Steve Manning, Invasive Plant Control, Bugwood.org.

(Right) photo courtesy of Tom Heutte, USDA Forest Service, Bugwood.org.



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References:

King County Noxious Weed Control Program. Stop the Spread of Invasive Knotweed. Brochure.
<<http://your.kingcounty.gov/dnrp/library/water-and-land/weeds/Brochures/knotweed-brochure.pdf>>.

Plant Conservation Alliance's Alien Plant Working Group. 2009. Japanese Knotweed.
<<http://www.nps.gov/plants/alien/fact/faja1.htm>>.

Invasive Plant Species Assessment Working Group. 2006. Japanese Knotweed. Invasive Plant Species
Fact Sheet. <http://www.in.gov/dnr/files/Japanese_Knotweed.pdf>.