

Invasive Japanese Knotweed Around Pleasant Lake

(Craig & Emily Williamson)

Japanese Knotweed is a tall (often over 10 feet tall) exotic plant from eastern Asia that has invaded much of Europe and North America, including New Hampshire, New London, and now Pleasant Lake. It is often called ‘Godzilla Weed’ because it is not only very tall but also very difficult to get rid of once established. It can grow in dense stands that take over and replace all other plant species below the tree canopy. It can disrupt sidewalks, roads, walls, and even house foundations with its aggressive root and shoot system. It is ‘riparian’, meaning that it grows particularly well along shorelines such as rivers and lakes. A walk around Pleasant Lake in October of 2010 revealed knotweed in over 20 locations (see map below).

Why should we be concerned about Japanese Knotweed?

- 1) It is a ‘riparian’ plant that tends to thrive and take over shorelines of rivers and lakes.
- 2) It can grow in dense stands that take over and replace all other plant species below tree level.
- 3) Its aggressive root and shoot system can disrupt sidewalks, roads, and even house foundations.
- 4) It is VERY difficult to get rid of once it becomes established – eradication may take years.
- 5) Invasive species damage in the USA is over \$100 billion per year (\$34 billion for plants).
- 6) It is one of the top 100 least desirable invasive species in the world and it surrounds our lake.
- 7) It can affect property values, and be more difficult to sell property that has knotweed on it.

How can I recognize Japanese Knotweed?

Japanese Knotweed, *Polygonum cuspidatum*, often called ‘false bamboo’ is actually in the Buckwheat family and not related to bamboo. It has hollow stems with nodes like bamboo and can grow to over 10 feet tall, often in dense stands. It has medium to large, somewhat heart-shaped leaves that often have red petioles. The white sprays of flowers appear in late summer, followed clusters of thousands of seeds. It can cross with the larger Giant Knotweed to form Bohemian Knotweed. All three are similar in general form. (Photos: USDA, and Piscataquog Land Conservancy in New Boston, NH.)



How can Japanese Knotweed be controlled?

Knotweed is a ‘prohibited invasive species’ and ‘noxious weed’ in New Hampshire. *Proper control methods are essential because even small fragments of roots or shoots can sprout new plants.* Mechanical control such as cutting of stems or digging out the roots can lead to the spread of knotweed if the cuttings are not properly disposed of in well-sealed black plastic bags (best left in the hot sun for a period following bagging). In addition to repeated cutting or digging, another non-chemical control method is to cut the plants and cover the stand area with a thick dark tarp. The challenge is that the aggressive roots may grow laterally out from under the tarp for many feet beyond the initial stand. Chemical methods of control include table salt or vinegar poured down the hollow cut stems, and the herbicide Glyphosate (sold commercially as Roundup). Care must be used in applying any chemicals: too much salt can persist in the soil and prevent recolonization by desirable native or cultivated plants, and Glyphosate, though biodegradable, is toxic to aquatic organisms and thus prohibited near waterways. Established stands of knotweed may take repeated control applications involving multiple methods over many years to fully eradicate it. Knotweed may disappear, only to resprout many years later.

Biological enemies are often effective in controlling exotic species. The idea is that invasive plants arrive in a new region without their enemies. So importation of natural enemies from the homeland can help to control these exotic invasives. A small plant-sucking insect, *Aphalaris itadori*, that belongs to a group called jumping plant lice (Psyllids) is being tested for biological control in the United Kingdom where they were released in March of 2010.

Other Information of Interest.

Though it may have some value in erosion control where no other plants will grow, the root structure is not good at holding soil and may actually increase erosion along waterways.

Japanese Knotweed is edible with a tart taste like a green apple or rhubarb. Although it contains oxalic acid that can aggravate medical conditions like arthritis and kidney stones, the New England Wildflower society has some recipes for those who are interested.

How can I get more information on Japanese Knotweed?

As with so many things these days, head to the internet. Here are a few suggestions:

- 1) The town Conservation Commission has an excellent [homeowners guide to knotweed control](#).
- 2) [Humorous but frightening video](#) on Japanese Knotweed (less than 1 minute long).
- 2) USDA (Dept. of Agriculture) website showing [map of knotweed distribution in USA](#):

Map of locations where Japanese Knotweed was found during a walk around Pleasant Lake in October, 2010 with a global positioning system (GPS). The unlabeled purple markers show locations. Where Knotweed was abundant all locations were not recorded. Knotweed at some of these sites has since been eradicated by dedicated community members.

