



BEVERLY SHORES

ENVIRONMENTAL RESTORATION GROUP
PROMOTING & PROTECTING ECOLOGICAL HARMONY

Japanese Knotweed

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Asia has made countless, invaluable contributions to the West in the arts, technology, cuisine, etc. But in recent years, sadly, invasive species make the headlines. The Asian long horned beetle, the Asian carp, the emerald ash borer, oriental bittersweet, bush honeysuckles, and Japanese knotweed are just some of problem species. The long horned beetle and ash borer entered by accident but the plant species were brought in on our own accord in a desire for interesting gardens and landscapes or sometimes even for erosion control or wildlife feed and cover. Many of the plants introduced remain where they were placed and present no problems. But some are terrible pests. Japanese knotweed (*Fallopia japonica*) is so fearsome in some parts of the world that you may have trouble getting a mortgage on a property where it might be growing. In the United Kingdom, Japanese knotweed is an "offense to plant or otherwise cause to grow in wild" and a "controlled waste" that requires disposal in a licensed landfill. It is also illegal in Australia.

Locally we are a little slower in recognizing this pest. In Michigan, it requires a permit from the Michigan Department of Agriculture and Rural Development to plant. Washington and New York also limit its sale. It is not officially restricted in Indiana yet but it might be too late



Japanese knotweed

anyway. It is here already in gardens and has escaped and formed population in many locations. If you are looking to buy the plant, it seems difficult to find but I found it offered for sale in at least one Chicago nursery. Many websites offering gardening advice still recommend it. Interestingly, resveratrol, the substance that first became famous as a possible

heart disease preventive when discovered in red wine, can be extracted from Japanese knotweed. Searches on the Internet for Japanese knotweed will lead to many products with Japanese knotweed-derived resveratrol.

Though also spread by birds, Japanese knotweed spreads primarily by rhizomes. Since it is often found in ditches and roadsides, bits of rhizomes are picked up by mowing and construction crews and rapidly spread to other locations. It also can wash downstream in a ditch or stream and start a new population. Japanese knotweed is able to push through concrete and other physical barriers making it a formidable foe. It spreads readily by even tiny pieces of its extensive system of rhizomes. Also according to Noel, it is being spread in culverts and roadsides in the Lakeshore from mowing and construction crews. Japanese knotweed, like tree of heaven, produces chemicals that suppress the growth of other plants nearby, called allelopathy.

How do you recognize this plant? Japanese knotweed has large, arching stems with alternate leaves with a pointed tip and a flat base. The stems are robust, hollow, resemble bamboo and can have a powdery bloom that rubs off. The fragrant flowers, which appear in late August and early September, are creamy white spikes at the ends of the arching stems. It is at the blooming stage where it is most easy to recognize Japanese knotweed while speeding past in a train or car. Japanese knotweed is in the buckwheat family and for those familiar with the many species of native knotweed and smartweed, some resemblance to other members of this family will be apparent. Japanese knotweed can reach heights of 8 feet.

Control of Japanese knotweed is very challenging, because the rhizomes, even the tiniest fragments, can remain viable despite your best efforts at removal. Because of this, physical removal by cutting and digging may never completely remove Japanese knotweed. But if you are a diligent landowner with a small population, persistence may pay off without herbicides. Cutting or mowing at ground level at least four times a year between April and September will also help. Don't compost

pieces of the plant because they may begin to sprout elsewhere. Covering the area with a heavy, black plastic landscaping material, extending beyond the plant stems by 6 to 15 feet, can aid in control. But this is a long term project. You will need to weigh down the edges of the plastic, leave it there for up to three years, and monitor the edges for new emergent knotweed.

If you choose to use a chemical control method, use the herbicide glyphosate or "Roundup." As always, carefully follow the label directions as required by state and federal law. Coat as many leaf surfaces as possible lightly with the herbicide. Even better is the combination of cutting and herbicide application. Cut the stem of the plant to 2-3 inches above soil. Apply Roundup to plant stumps immediately after cutting. Wait at least 7 days before re-cutting, mowing, or disturbing the treated stems. When the plant has regrown in the fall, spray the leaves again or cut it and spray the stems. As the knotweed is removed from your site, fill that space with native or non-invasive plants by seeding or planting. When these plants become established they will help keep out Japanese knotweed and other invasive species.

There are good, easy-to-grow native alternatives to Japanese knotweed, though probably nothing quite as aggressive or easy to grow. Some recommended replacements include hemp dogbane, with handsome fruit and flowers, red-osier dogwood, with attractive red stems, and early low blueberry which has a beautiful red fall color. Several ferns will also do very well, including ostrich fern and for a low-to-the-ground cover, try wild ginger, which, once established, has a wide tolerance of low sun and dry soil.

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