Giant Knotweed

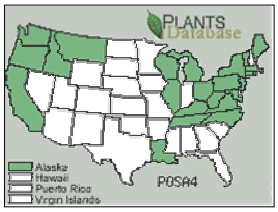
Polygonum sachalinense F. Schmidt ex Maxim.

Common Names: Giant knotweed, Sakhalin knotweed
Native Origin: Japan: introduced as a garden ornamental and for forage and erosion control

Description: Giant knotweed is an herbaceous perennial in the buckwheat family (Polygonaceae) that is woody in appearance and can grow over 12 feet in height. It has erect hollow stems that are light green, smooth, jointed, swollen at the nodes and often arched over near the top of the plant (resembling the canes of bamboo). The leaves are alternate, petioled and 6 to 14 inches in length. The shape of the leaf is ovate (sometimes lanceolate) with a gradually tapering tip, a heart shaped base and rounded basal lobes. The greenish white flowers are functionally unisexual, borne in numerous auxiliary racemes, grow approximately 4 inches in length and appear from August to October. The fruits are papery and contain a three-sided achene that is shiny, brown, and ovoid in shape.

Giant knotweed superficially resembles Japanese knotweed (Polygonum cuspidatum), and the two species hybridize. Giant knotweed is distinguished by heart-shaped leaf bases, pubescent leaf undersides, and an inflorescence that is much shorter than its subtending leaf.

Habitat: It is found at sites with varying combinations of sun, moist soil and human disturbance, such as stream and river banks, wet meadows, roadsides, railroad and utility right-of-ways, vacant lots and waste places.



Distribution: This species is reported from states shaded on Plants Database map. It is reported invasive in IL, MD, MI, NC, OR, RI, WA, and WI.

Ecological Impacts: Giant knotweed is capable of quickly forming dense stands where it can crowd out native vegetation. Thickets can clog small waterways and displace streamside vegetation, increasing bank erosion and lowering the quality of riparian habitat for fish and wildlife. Once established, these stands are very difficult to eradicate. It spreads primarily by its rhizomes. The rhizomes can be dispersed by natural causes, such as flooding and erosion, and also by anthropogenic disturbances to the soil. Cut or broken stems will also root if left on moist soil or put directly into water. It produces only small amounts of viable seed that are dispersed mainly by gravity, wind and water. Giant knotweed is very invasive in the Northeast US and likely to become a problem in the Midwest.

Control and Management:

- **Manual**- Hand pull young plants; dig or till when soil is soft. Plants should be pulled up by the root crown, trying to remove as much of the rhizomes as possible because any rhizomes remaining in the soil will produce new plants at each node. It is possible to eradicate small patches of knotweed with repeated and persistent cutting of the plants.
- **Chemical**- Several herbicides, such as Glyphosate, are effective in controlling this species. If the plants grow in a wetland, be sure to use an aquatic approved herbicide. Check label directions and state requirements.
- **Bio-control**-Several insects are found to utilize knotweed in its native range and fungus infections exhibit some impacts. A combination of fungus and insects appear to keep knotweed species under control in Japan.
- **Other-** Goats will eat most plants down to stems, however plants will continue to grow once grazing ceases.

References: http://plants.usda.gov, http://dnr.metrokc.gov/wlr/LANDS/weeds/knotg.htm
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Invasive Plants website: http://www.na.fs.fed.us/fhp/invasive_plants