

**WRITTEN FINDINGS OF THE
WASHINGTON STATE NOXIOUS WEED CONTROL BOARD**
(January 1995)

Scientific Name: *Polygonum cuspidatum* Sieb. & Zucc.

Common Name: Japanese knotweed

Family: Polygonaceae

Legal Status: Class C

Description and Variation: Japanese knotweed is a perennial species with spreading rhizomes and numerous reddish-brown, freely branched stems. The plant can reach four to eight feet in height and is often shrubby. The petioled leaves are four to six inches long and generally ovate with an abrupt point. The whitish flowers are borne in open, drooping panicles. The plant is dioecious, so male and female versions of the inconspicuous flowers are produced on separate plants. The approximately 1/8 inch long fruits are brown, shiny, triangular achenes, (Hitchcock and Cronquist 1964; Hickman 1993).

Economic Importance: *Detrimental* - Japanese knotweed is a very aggressive species (Hitchcock and Cronquist 1964) that is capable of crowding out all other vegetation (Ahrens 1975); Hickman (1993) lists the species as a noxious weed. In addition, the plant can create a fire hazard in the dormant season (Ahrens 1975).

Beneficial - The plant is sometimes grown as an ornamental (Hitchcock and Cronquist 1964; Muenscher 1955).

Geographic Distribution: As its name indicates, Japanese knotweed is a native of Japan (Hickman 1993). However, it has become naturalized in North America, where it is found from Newfoundland and many parts of the northeastern U.S. (Muenscher 1955), west to California (Hickman 1993) and the Pacific Northwest (Hitchcock and Cronquist 1964).

Habitat: An escaped ornamental, Japanese knotweed is often found in waste places, neglected gardens, roadsides, and along streambanks (Muenscher 1955; Figueroa 1989).

History: A native of Asia, this species was introduced to England in 1825 for use as an ornamental (Patterson 1976). Japanese knotweed was subsequently introduced to the U.S. for use in ornamental hedges and for erosion control (Pridham and Bing 1975).

Growth and Development: Japanese knotweed is a perennial species.

Reproduction: This species spreads by seed and by long, stout rhizomes (Muenscher 1955). However, colonies rarely establish from seed. Primary spread of the species is reported to be through mechanical movement of plant parts (Figueroa 1989).

Response to Herbicides: Glyphosate has been shown to be effective in controlling Japanese knotweed under certain conditions (Ahrens 1975; Figueroa 1989). However, dust on plants along roadways may reduce the herbicide's effectiveness (Figueroa 1989).

Response to Cultural Methods: Frequent cultivation to grub out rhizomes may be effective (Muenscher 1955).

Response to Mechanical Methods: The plants are extremely difficult to dig up due to their high rhizome densities (Figueroa 1989). Care must be taken with any mechanical removal methods, since improper disposal of plant material can spread the species further.

Biocontrol Potential: No information available.

References:

- *Ahrens, J.F. 1975. Preliminary results with glyphosate for control of *Polygonum cuspidatum*. Proceedings of the Northeastern Weed Science Society 29: 326.
- *Figueroa, P.F. 1989. Japanese knotweed herbicide screening trial applied as a roadside spray. Proceedings of the Western Society of Weed Science 42: 288-293.
- *Hickman, J.C., ed. 1993. The Jepson Manual: Higher Plants of California. University of California Press, Berkeley.
- *Hitchcock, C.L. and A. Cronquist. 1964. Vascular Plants of the Pacific Northwest. Part 2: Salicaceae to Saxifragaceae. University of Washington Press, Seattle.
- *Muenscher, W.C. 1955. Weeds, Second Edition. Cornell University Press, Ithaca, NY.
- Patterson, D.T. 1976. The history and distribution of five exotic weeds in North Carolina. Castanea 41: 177-180.
- Pridham, A.M.S. and A. Bing. 1975. Japanese-bamboo. Plants-Gard. 31: 56-57.
- Scott, R. and R.H. Marrs. 1984. Impact of Japanese knotweed and methods of control. Aspect Appl. Biol., 291-296.

****References available from the Washington State Noxious Weed Control Board office in Kent.***

Rationale for listing: Japanese knotweed is an escaped ornamental that is becoming increasingly common along stream sides and rights-of-way in Washington. The species forms dense stands that crowd out all other vegetation, degrading native plant and animal habitat. In addition, Japanese knotweed can create a fire hazard in the dormant season. This perennial plant is difficult to control because it has extremely vigorous rhizomes that form a deep, dense mat. In addition, the plant can resprout from fragments; along streams, plant parts may fall into the water to create new infestations downstream.