WRITTEN FINDINGS OF THE
WASHINGTON STATE NOXIOUS WEED CONTROL BOARD
(January 2004)

Scientific Name: *Polygonum Bohemicum (* P*olygonum cuspidatum X sachalinense)*

Common Name: Bohemian knotweed

Family: Polygonaceae

Legal Status: Class C

Description and Variation: Clumping perennial with large leaves, hollow stems, and long creeping rhizomes. Main stems erect, often arched near top, simple to minimally branched, grooved, thick, hollow, weakly woody, swollen at nodes, usually reddish-brown at maturity. Leaves alternate, leathery ranging in lengths of 18- 30 cm. Leaf base ranges from slightly cordate to deeply cordate. The tips are typically acuminate. The leaf midvein has simple hairs(Zika 2003).. The plant habitat ranges from 2-3 m. Rhizomes thick, extensive, storing large quantities of carbohydrates, and spreading aggressively. Fragments can produce new plants. Flowers staminate. Panicles terminal and on axillary branch tips, typically 20-35 cm long. Sepals white to pinkish, 5-7 mm long, outer 2 narrower than inner 3, not keeled or winged in flower or fruit.

Bohemian knotweed is very similar to 3 other knotweed species in Washington: *Polygonum polystachyum(*Himalayan knotweed), *Polygonum sachalinense*(giant knotweed) and to *P. cuspidatum* (Japanese knotweed). Some distinguishing characteristics between these species are listed below:

Polygonum cupidatum: Typically seen as a female clone, recognized by presence of fruit. Flower clusters are longer than the leaves. Leaves are typically less than 18 cm in length and have a distinctively triangulate leaf with a blunt base. Inflorescence is typically longer than the leaves. Presence of scattered swollen cells or knobs on the midvein.

Polygonum bohimicum: typically found in WA as a male clone, flower clusters close to the length of the leaves. Leaves are an intermediate length typically ranging from 18-30 cm. Leaves appear are more ovate rather than triangular. Basal cleft is present in varying degrees. Inflorescence is typically the same length as the leaves. Presence of short stout hairs on the midvein.

Polygonum sachalinense: typically seen as a female clone, flower clusters are close to half the length of the leaves. The leaves are typically 30-50 cm long and are distinctively oblong with a deep basal cleft. Inflorescence is typically half the length of the leaves. Presence of multicellular hairs on the midvein.

Polygonum polystachyum: Not typically confused with the others, it is recognized by its long slender leaves ranging from 10-20 cm.

(Zika 2003)

Economic Importance: *Detrimental* – The knotweed complex is a very aggressive species (Hitchcock and Cronquist 1964) that forms dense stands that are capable of crowding out all other vegetation (Ahrens 1975); This perennial plant is difficult to control because it has extremely

vigorous rhizomes that form a deep, dense mat. The plants can create a fire hazard in the dormant season (Ahrens 1975). In addition, the plant can resprout from fragments; along streams, plant parts may fall into the water to create new infestations downstream.

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

Geographic Distribution: Native to northeastern Asia and spread throughout England and suspected to be spread throughout North America but miss identified as Japanese knotweed. The hybrid was first recognized and studied in Europe (Zika 2003).

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

History:

Growth and Development: Knotweeds are a perennial species.

Reproduction: This species spreads by seed and by long, stout rhizomes (Muenscher 1955). However, colonies rarely establish from back crossing with Japanese or Jiant knotweed. 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).

Refer to Clark count web site: http://www.co.clark.wa.us/environ/Knotweed.pdf

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.

Rationale for listing: The knotweeds are escaped ornamentals that are becoming increasingly common along stream sides and rights-of-way in Washington. These species form dense stands that crowd out all other vegetation, degrading native plant and animal habitat. In addition, knotweeds 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.

References:

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