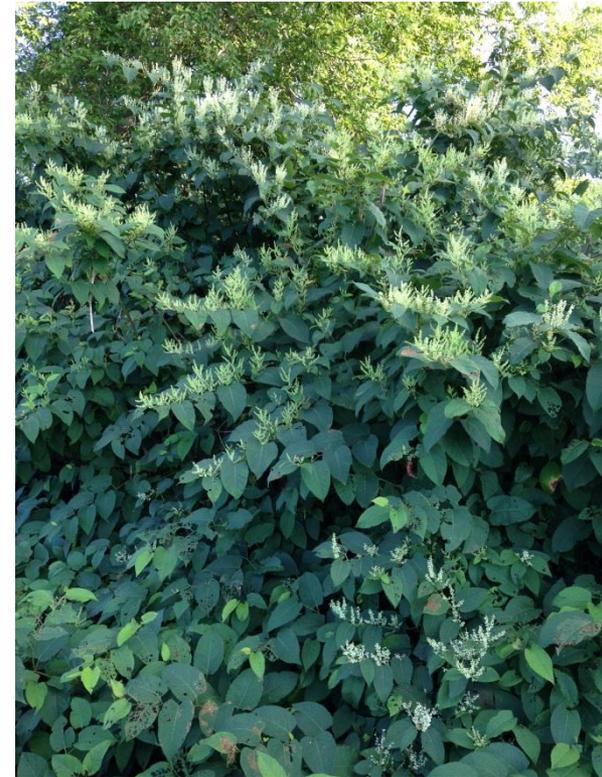


Knotweed biology and identification



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Knotweed general description

- Herbaceous creeping perennial
- Hollow, bamboo-like stems
- The base of the stem above each joint is swollen
 - ocrea



Knotweed Roots/Rhizomes

- Taproot
 - up to 6 ft deep
- Stout, rhizomes
 - \geq 65 ft from parent plants
- Both plants arising from seed and rhizome also have fibrous roots.



These are the main ones we deal with

- **Giant knotweed (*Fallopia sachalinensis*)**
The largest knotweed, very large leaves.
- **Japanese knotweed (*Fallopia japonica*)**
Most common, shorter than Bohemian or giant.
- **Bohemian knotweed (*Fallopia x bohemica*)**
Hybrid between giant and Japanese knotweed.
- **Himalayan knotweed (*Polygonum polystachyum*)**
Shorter, denser and more clump-forming and has stems that are not hollow

But we also have many ornamental cultivars!

- Search dave's garden website (davesgarden.com)
- Comments on commercial varieties (Marked as positive)
 - This plant stays in it's place. But wherever the place is make sure it has a lot of room. It grows extremely fast.
 - It will also poison the soil and crowd out other species. It's a beautiful plant, when it's kept contained and under control. But be careful, because it can get out of hand, very quickly.once it gets rooted in a certain area, I don't think it ever truly goes away.If anybody wants any, come on up to my place and you can take as much as you want. I don't worry...it'll be back!

**Variegated
Japanese
Knotweed,
Speckled Mexican
Bamboo**
Fallopia japonica
'Variegata'

From davesgarden.com



Japanese Knotweed, False Bamboo, Mexican Bamboo

Fallopia japonica 'Crimson Beauty'



we3greens, 2009
garden.com/members/we3greens/
Use Prohibited.



From ncsu.edu

From davesgarden.com

Japanese Knotweed, False Bamboo, Mexican Bamboo

Fallopia japonica 'Compacta'



To identify should evaluate the following:

1. Plant size
2. Leaf size/shape
3. Hairs on underside of leaves
4. Flowers
 - color/arrangement
 - Male/female parts of flowers

If those fail may need to evaluate DNA!

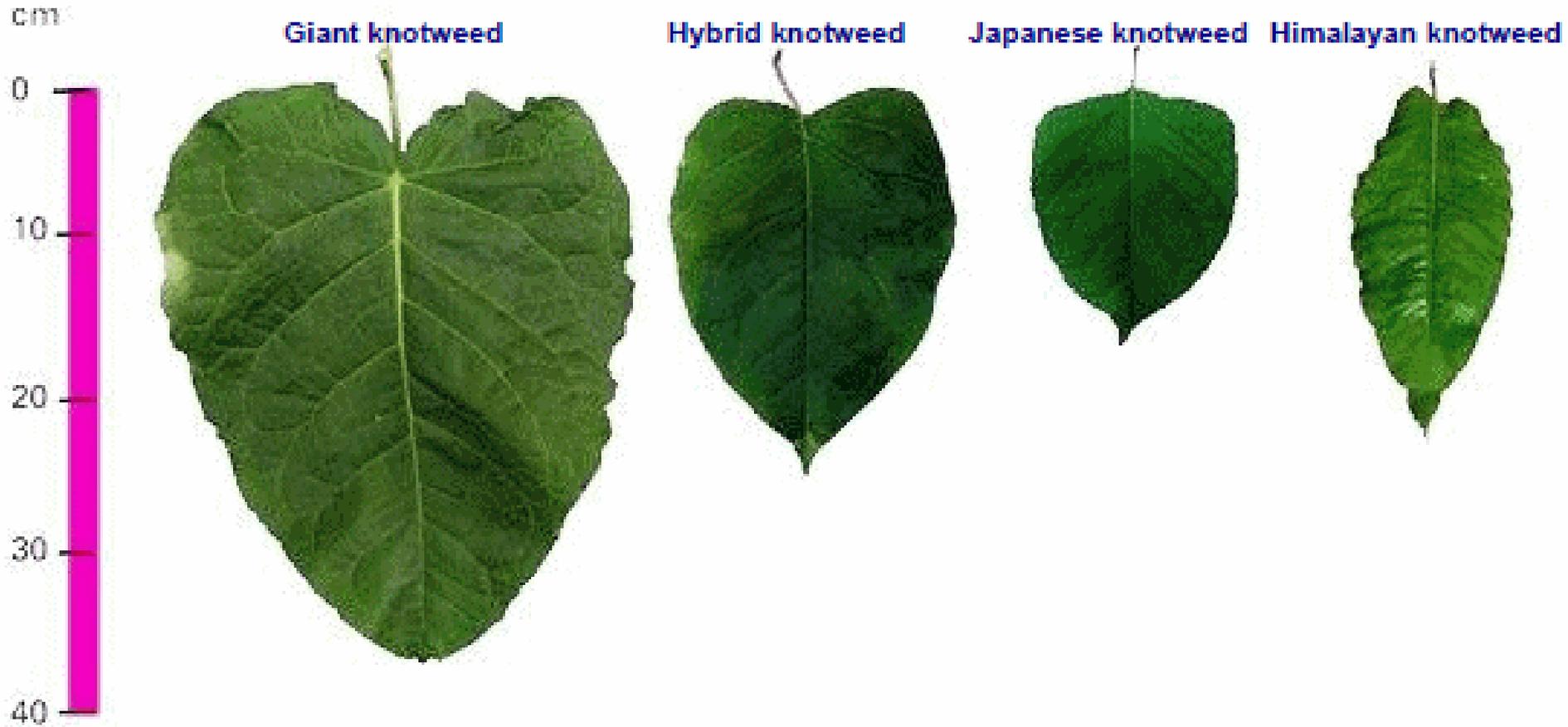
Plant Size

- Rarely is this a good stand alone characteristic
 - Giant knotweed (*Fallopia sachalinensis*)
 - 10-20 ft tall
 - Japanese knotweed (*Fallopia japonica*)
 - 5-8 ft tall
 - Bohemian knotweed (*Fallopia x bohemica*)
 - 6-16 ft tall
 - Himalayan knotweed (*Polygonum polystachyum*)
 - 6-10 ft tall

If < 10 feet tall and not managed not Giant knotweed

If > 10 feet tall not Japanese or Himalayan knotweed

Variations in leaf shape



Leaf Size and shape

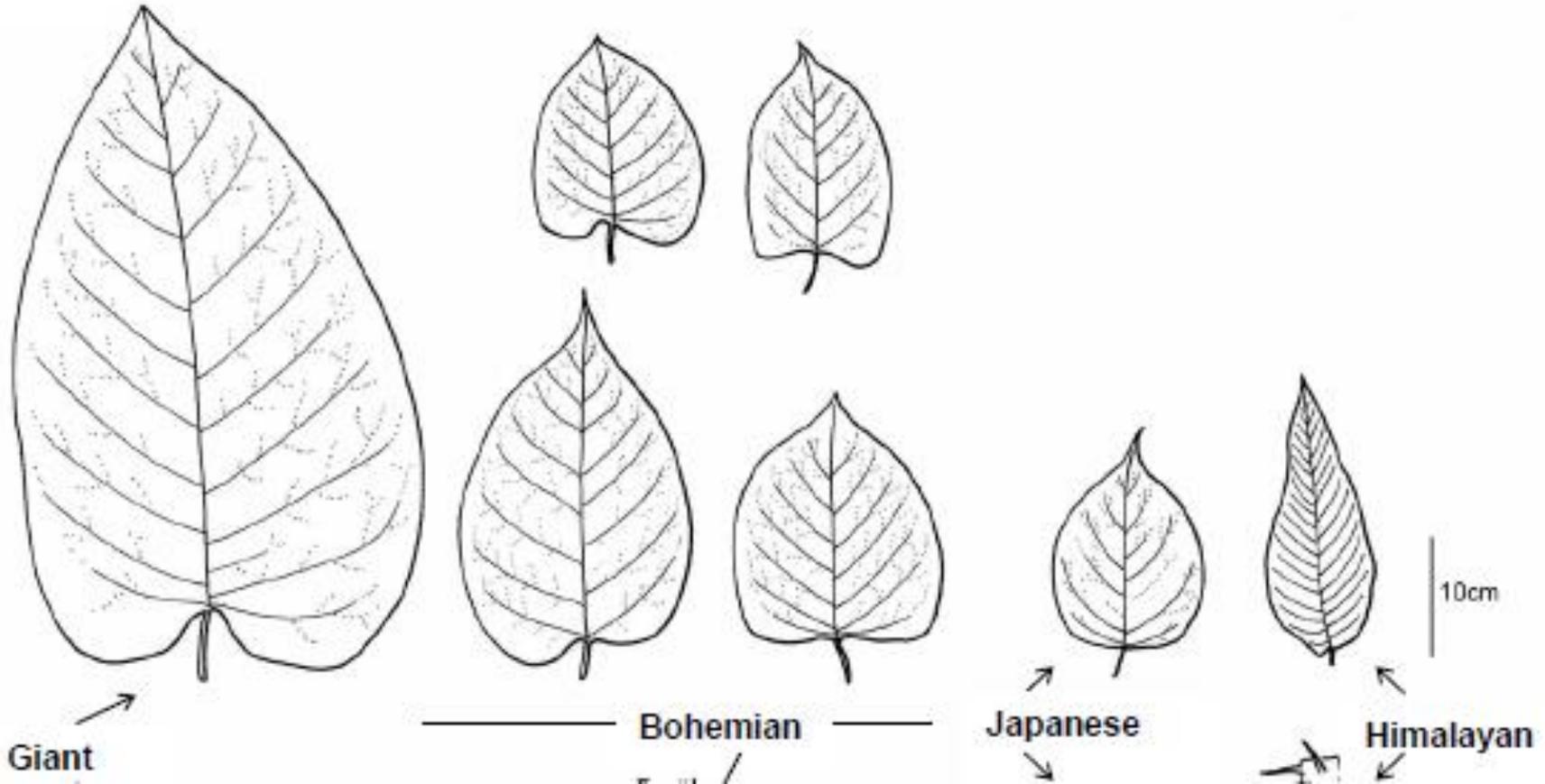
Great characteristics for Giant and Himalayan

- Giant
 - 8-16 inches long
 - $\frac{2}{3}$ rd as wide
- Himalayan
 - ≤ 8 inches long
 - $< \frac{1}{2}$ as wide
- Japanese
 - 1-4 inches long
 - $\frac{2}{3}$ rd as wide
- Bohemian
 - 2-12 inches long
 - $\frac{2}{3}$ rd as wide



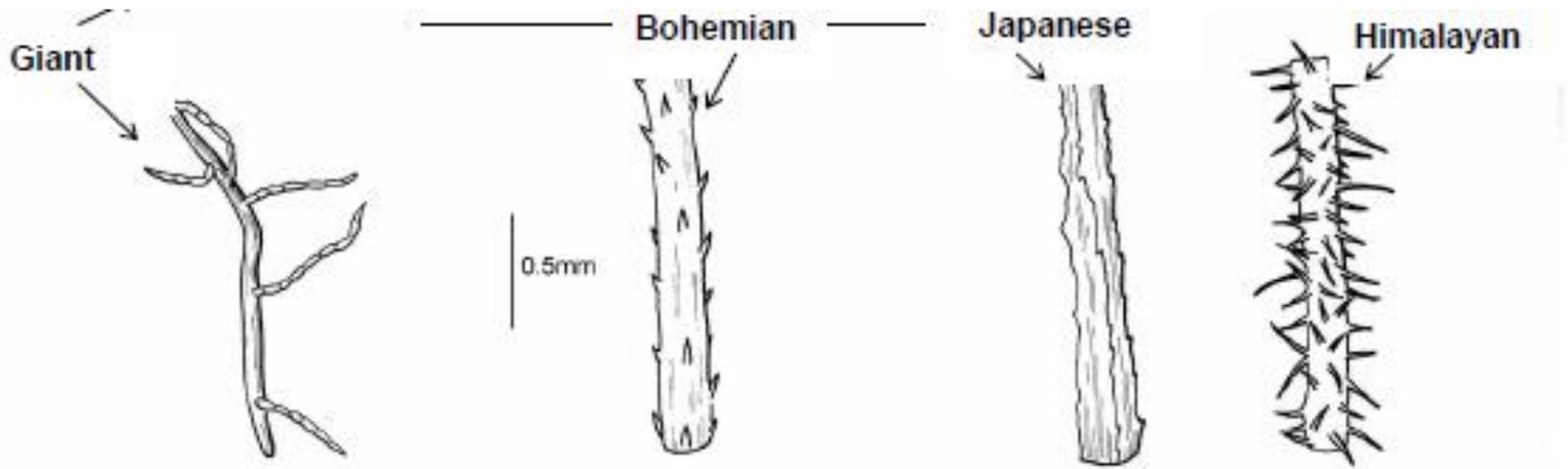
Note how different Bohemian leaves can look!

a) Leaves



Hairs on the underside of veins of leaves may help

From: Key to Identification of Invasive Knotweeds in British Columbia ; Wilson



b) Hairs on the underside veins of leaves

Flower color, arrangement and male and female parts may help with ID if present

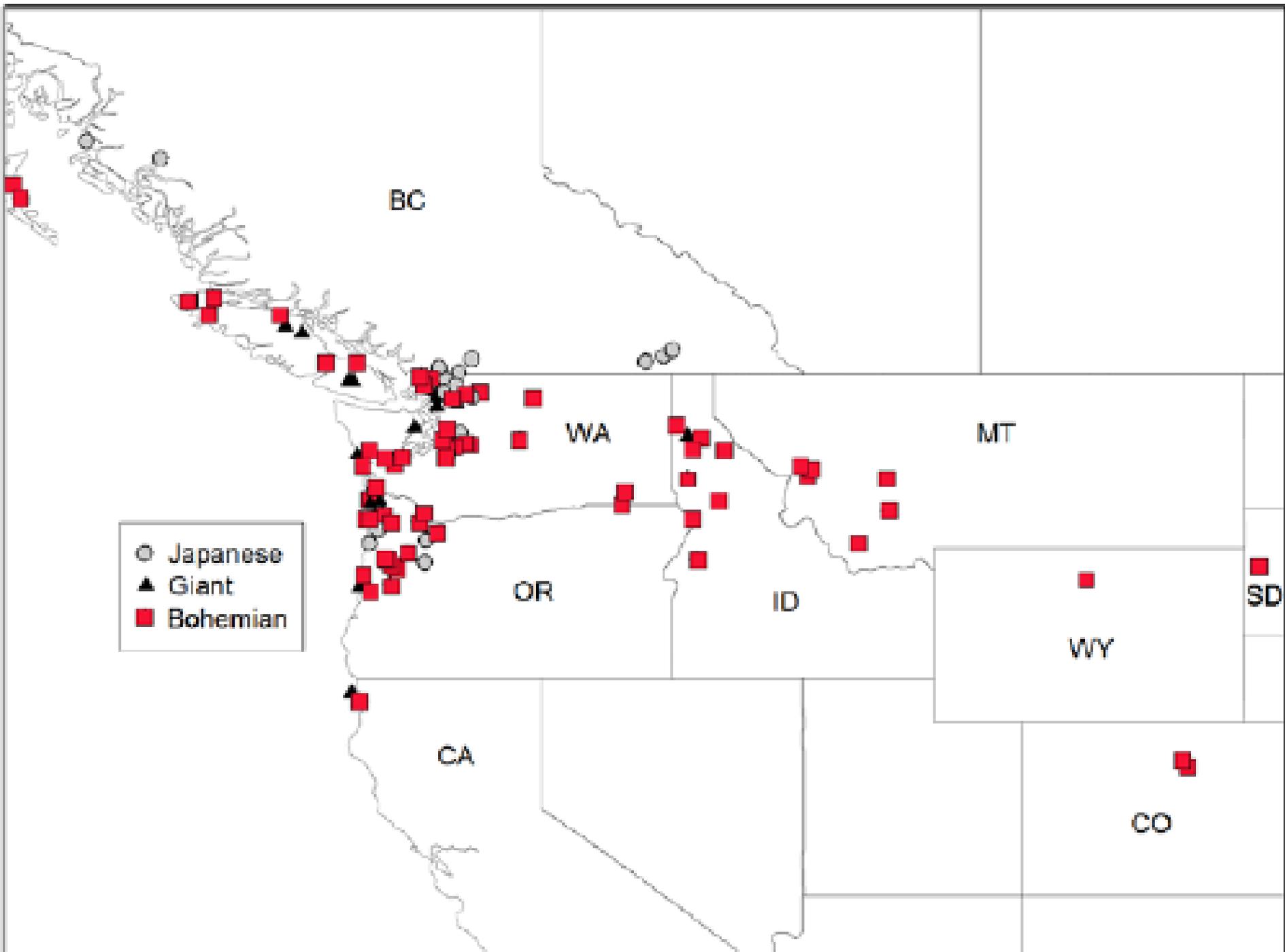
TABLE 1. Characteristics of species in the knotweed complex (Adapted from Wilson 2007 and Parkinson and Mangold 2010)

	Giant	Bohemian	Japanese	Himalayan
Plant Size	9'9" to 19'8"	6'6" to 16'5"	4'10" to 8'2"	6'6" to 9'10"
Leaf Size	7.8 to 16" long, 2/3 as wide	2 to 12" long, 2/3 as wide	1 to 4" long, 2/3 as wide	up to 8" long, less than 1/2 as wide
Sex	Perfect and fertile, usually produces seed	Female or perfect, occasionally produces seed	Female or perfect (rare), occasionally produces seed	Perfect and fertile, usually produces seed
Flower Color and Arrangement	Greenish-white to creamy-white in a compact, drooping arrangement	Greenish-white to creamy-white in an erect or loose, drooping arrangement	Greenish-white to creamy-white in a loose, drooping arrangement	Pinkish-white to pink in a loose, spreading arrangement

Himalayan knotweed

should never confuse with others





From our plots
leaves 4-5 " wide



From our plots
7-9" long!



8-10 ft tall



Bohemian knotweed?

Pictures from EDDMaps

GLEDN APP



Good News

- *Reports suggest management strategies are similar across species and hybrids!!!!*



Bad News

- Knotweed seed viability in WI
 - Have evaluated 2 populations
 - Of seed collected found a small portion are viable
- Suggests can spread by seed
 - Other studies suggest seed spread is more common than once thought
 - Unsure how common in WI

