

# Identification

## Leaves:

simple, widely ovate and alternate with a flat base and abruptly pointed tips (6" long)



## Stems:

hollow, swollen at the nodes with a reddish brown coating that can be rubbed off easily

## Roots:

deep taproot with extensive rhizome system that extends laterally, forming new crowns



## Flowers:

small, pale white flowers form in spiked racemes from Aug-Sept (insect pollinated)



## Fruits:

rarely produced; classified as an achene encased by a three-winged, papery calyx



## Recommended Native Riparian Mixture

<i>Panicum clandestinum</i>	Deer tongue (Tioga)
<i>Schizachyrium scoparium</i>	Little bluestem (PA ecotype)
<i>Chamaecrista fasciculata</i>	Partridge pea (PA ecotype)
<i>Elymus riparius</i>	Riverbank wildrye
<i>Elymus virginicus</i>	Virginia wildrye
<i>Verbena hastata</i>	Blue vervain
<i>Carex vulpinoidea</i>	Fox sedge
<i>Heliopsis helianthoides</i>	Smooth ox eye
<i>Sambucus nigra</i>	Elderberry
<i>Panicum virgatum</i>	Switchgrass (Shelter)
<i>Sorghastrum nutans</i>	Indian grass (PA ecotype)
<i>Glyceria striata</i>	Fowl mannagrass (PA ecotype)
<i>Andropogon gerardii</i>	Big bluestem (Niagara)
<i>Desmodium canadense</i>	Showy ticktrefoil
<i>Viburnum dentatum</i>	Arrow wood
<i>Rhus typhina</i>	Staghorn sumac
<i>Rudbeckia hirta</i>	Black-eyed Susan (NC ecotype)
<i>Monarda fistuliosa</i>	Wild bergamot
<i>Penstemon digitalis</i>	Tall white beard tongue
<i>Asclepias syriaca</i>	Common milkweed
<i>Eutrochium purpureum</i>	Joe Pye weed
<i>Eupatorium maculatum</i>	Spotted Joe Pye weed
<i>Juncus effusus</i>	Soft rush
<i>Eutrochium perfoliatum</i>	Boneset
<i>Baptisia australis</i>	Blue false indigo (WV ecotype)
<i>Cornus racemosa</i>	Grey dogwood
<i>Vernonia gigantea</i>	Giant ironweed
<i>Spartina pectinata</i>	Prairie cordgrass

## Further Resources

- **Michigan Dept. of Natural Resources**  
[michigan.gov/documents/dnr/knotweed\\_BCP\\_372280\\_7.pdf](http://michigan.gov/documents/dnr/knotweed_BCP_372280_7.pdf)
- **Penn State Dept. of Horticulture**  
[plantscience.psu.edu/research/projects/vegetative-management/publications/roadside-vegetative-mangement-factsheets/5managing-knotweed-on-roadsides](http://plantscience.psu.edu/research/projects/vegetative-management/publications/roadside-vegetative-mangement-factsheets/5managing-knotweed-on-roadsides)
- **Planting Native Species (Skinner et al.)**  
Skinner H.R., Grinten M., Gover A.E. 2012. Planting native species to control site reinfestation by Japanese knotweed (*Fallopia japonica*). *Ecological Restoration* 30:3;192-199.



# Brodhead Watershed Association

**Phone:** (570) 839-1120

**Mail:** Box 339 Henryville, PA 18332

**Email:** [brodheadwatershed@gmail.com](mailto:brodheadwatershed@gmail.com)

# Riparian Control of Japanese Knotweed (*Fallopia japonica*)

## Information & Control Methods



*“On a global basis... the two great destroyers of biodiversity are, first, habitat destruction and, second, invasion by exotic species.”*

—E.O. Wilson

## Growth Habits

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- Knotweed was introduced to the U.S. in the late 1800s for ornamental purposes.
- Outside of its native range, knotweed lacks pathogens that help control its growth.
- Knotweed can tolerate many soil and light conditions.
- It is an herbaceous (non-woody) perennial that grows 6-12 feet tall and spreads aggressively in areas of high to intermediate disturbance.
- Sexual reproduction is unnecessary in introduced areas because rhizome and stem fragments can generate into a whole new plant.

*Majority of invasive species are non-native, however, not every non-native species is invasive.*

## Invasive Concerns

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- Once established, knotweed forms dense monocultures which outcompetes native plant species and reduces the local biodiversity of the area.
- These monocultures destroy critical habitat for fish and wildlife populations by reducing sources of food and disturbing nutrient cycles.
- Mature knotweed stands can alter hydrological processes by increasing streambank erosion and consequently sediment deposition.
- Aggressive knotweed growth can block small waterways and salmon migration streams, as well as restrict access to riverbanks for recreational use.

## Control Methods

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### 1. At least two years of knotweed suppression

Pull, cut, and/or mow Japanese knotweed twice in the spring or once in late June. Avoid translocation of any rhizome or stem fragments to new locations.

In fall, while sugars are being transported into the roots, apply



a phloem-mobile herbicide 3-4 times (4qt/acre) to any remaining biomass. (Glyphosate herbicide is approved for streambank use in Pennsylvania.)

### 2. Replace knotweed with native plant species

Sowing and transplanting a greater diversity of native plant species was found to have the greatest effective at preventing knotweed reinfestation by increasing competition and using nutrients that were once freely available.

