Stop - Don't Pull That Weed (especially if it's Japanese knotweed)
Written by: Bill Copeland, Campton Conservation Commission

New Hampshire has more than 50 invasive plant and insect species crawling throughout the state. One of the most common, and most difficult plant species to eradicate is the **Japanese knotweed** *(Teynoutria japonica)***.**

Japanese knotweed with flowers that appear from August to September
Courtesy Campton Conservation Commission

Japanese knotweed is native to eastern Asia and was first introduced into North America in the late 1800s. It was used as an ornamental plant on properties and also for erosion control due to its deep and interwoven root system.

Japanese knotweed has stems that are greenish with purple splotches, are jointed, and have hollow stems that look very much like bamboo, with pointy broad leaves, a thick canopy and white flowers that bloom in August and September.

This perennial can grow as much as 8 inches per day and reach as high as 10 feet, but this is only the tip of the iceberg. Looking downward, Japanese knotweed roots can be 60-100 feet underground, where it stores its rhizomes (which generate future plants). For this reason, you

can't just pull up young sprigs or mow over them. Knotweed can spread from stem and root segments, and from seeds, after flowering.

When knotweed is upstream in rivers and brooks, flooding often causes fragments to break off, and be carried down river, to gain new footholds along the riverbank. When found along a specific stretch of river, you must go upriver to locate the true origin of the infestation, because infestation will keep happening down river.

Japanese knotweed comes back – and often with a vengeance!

Japanese knotweed flourishes in open spaces, ditches, along roadsides and highway medians and along riverbanks. Often, these plants are easy to spot while you are just driving along. (You can view a major outbreak along Ellsworth Hill in Campton at the overlook if you want to see an example). The Baker River is also an example of a river system being choked by knotweed.

Removal tools like shovels, shears and earth moving equipment should be cleaned/disinfected after contacting Japanese knotweed to avoid infecting other locations.

Earth moving, via construction equipment and the “fill” used during new construction or rebuilding washout areas can unknowingly transport Japanese knotweed plants (or plant fragments), thereby starting new infestations. These activities are one of the leading causes of knotweed spread throughout the state.

Doug Cygan, Invasive Species Coordinator, New Hampshire Department of Agriculture, Markets & Food, Division of Plant Industry, has traveled the state identifying and monitoring infestations of Japanese knotweed, as well as other invasive plant species, that are working their way up and across the state. He has conducted many field studies on different methods to rid the state of these invasives, including the application of herbicides on road medians.

Maintenance and eradication methods include:

- Cut infestation, stack on site and let dry. Remove in plastic bags. (less effective)
- Smother. Cut stems, put down 3-4” of wood chips, place thick plastic sheet, cover with another 3-4” of wood chips (most effective besides herbicide)
- Apply herbicide (requires a NH licensed herbicide applicator) and typically lasts only 5-7 years
- Thwart growth; Use a metal/plastic grid to limit and choke off growing shoots
- Experimental; Cultural, biological, chemical and electrical methods are being studied

Please note that these eradication methods should not be used during the flowering stage (August to September) to avoid impacting honeybees and other pollinators.

Once Japanese knotweed has been mitigated or removed, there are native plants that can serve as a good replacement:

- New England Aster (Aster novae-angliae)
- Blue False Indigo (Baptisia australis)
- Sweet Joe-Pye-Weed (Eupatorium purpureum)
- Queen-of-the-Prairie (Filipendula rubra)

Doug Cygan has spent decades tagging and monitoring invasive plants in NH, which the public can view on **EDDMapS.org**, a nationwide database. He is currently advising Campton's Conservation Committee (Invasive Species Subcommittee), which has a goal to identify and map infestations throughout Campton, and then to select some key sites for eradication procedures next year.

Community education will be key in this effort to help control Japanese knotweed. This will be accomplished via the Campton Conservation website, flyers at Town Meeting, controlled test sites and by working with individual homeowners to identify and advise on eradication best practices.

Why is eradication of Japanese Knotweed so important?

New Hampshire is a good environment for these invasives because of a plentiful water source (rivers, streams and mountain runoff). But the dangers of Japanese knotweed and other invasives is a real concern because it:

- Reduces natural diversity and chokes out native plants and trees through rapid growth and allelopathic (chemical) releasing properties that suppress native plant growth
- Interferes, harms or destroys endangered or threatened species (I.e wood frogs, turtles and salamanders)
- Reduces and crowds out wildlife habitat (i.e block access to river banks)
- Impacts water quality
- Stresses forest and crop production
- Damages personal property (breaks through concrete foundations, walls, septic and drainage systems)
- Causes health problems
- Impedes water flow and increases the risk of flooding

To learn more about identifying Japanese knotweed and other invasives in New Hampshire, please see our website: **www.camptonconservation.org/invasive-species/**

Feel free to email the Campton Conservation Commission at conservationcommission@camptonnh.gov if you have questions or seek advice on mitigating Japanese knotweed around your home.