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### **Campbell River's most unwanted, part 2 – Knotweeds: thugs of the invasive plant world**

With bashing the blooming broom done for this year, it's time to tackle knotweeds. The City and Greenways Land Trust are now teaming up to treat dozens of infestations of these invasive plants.

#### **What's the problem? They might be pretty, but...**

Knotweeds are among the top 10 invasive species for control in B.C. and one of the 100 worst around the globe, as identified by the International Union for Conservation of Nature. Initially introduced in the 1800s from Asia as ornamental plants, they spread quickly and compromise biodiversity and ecosystem processes. All four species of knotweed (Bohemian, Giant, Himalayan and Japanese) have been found in gardens and natural areas in Campbell River:

Because these invasive perennials are also classed as noxious weeds under the provincial *Weed Control Act*, landowners have a duty to control them on their property.

*"It's a daunting task to control knotweeds because they're incredibly tough and persistent, one of the thugs of the plant world,"* says the City's environmental specialist Terri Martin.

*"Knotweeds root and spread quickly. Tiny pieces of stem fragments take hold easily on top of or beneath the soil surface, and fragments transported in water bodies, including salt water, can result in significant infestations downstream. Plus, they thrive in the most extreme conditions, even breaking through pavement."*

And once they're established, they take over. *"Knotweeds are particularly problematic in our sensitive streamside habitats because dense stands shade out a rich diversity of native plants. Also, their roots lack fine hairs that bind the soil, so they destabilize stream banks and facilitate erosion. This leads to further habitat loss and sediment in waterways during high stream flows."*

#### **What's been done so far?**

Since 2012, the City of Campbell River has contracted an annual \$5,000 knotweed treatment program to Greenways Land Trust. Greenways maintains a list of knotweed locations, prioritizes treatment locations based on environmental sensitivity, organizes chemical treatment through a certified pesticide applicator and landowner contact where required, arranges for plant disposal and ensures all data is entered into the Provincial Invasive Alien Plant Program database. A total of 69 sites are currently being treated. Most sites require three or more years of treatment before the plant is eradicated.

#### **New this year –Environmental Protection Bylaw amendments**

The City is in the final stages of adopting an amended Environmental Protection Bylaw to regulate defined invasive plants and noxious weeds (including all four knotweeds) by restricting planting and requiring removal.

*"Thanks to an annual program to treat knotweed, we are starting to gain ground in many of our environmentally-sensitive areas,"* says Councillor Marlene Wright, who holds the environmental portfolio. *"Regulation restricting planting and requiring removal will help ensure our investment in treatment continues to be effective, and that natural areas are not re-infested by knotweed spreading from private land."*

#### **How to identify knotweeds**

- Also known as false bamboo, they have hollow stems that stand upright with reddish-brown speckles and thin, papery sheaths.
- Small white-green flowers grow in showy, plume-like, branched clusters along the stem and leaf joints.

- Leaves are heart or triangle-shaped on all species except Himalayan, which is elongated and tapered. Giant knotweed leaves are generally twice the size of the other three species. A distinguishing feature of Japanese knotweed is the zigzag pattern of leaf arrangement along the plant's arching stems.
- Stems grow one to five metres high at maturity.

### **What to do about knotweeds on private property**

Knotweeds' extensive underground stems (rhizomes) may be up to three metres deep and travel 20 metres from the plant. Even if most of the plant is dug out, fragments left behind can remain dormant for up to 20 years. A dedicated, multi-year, planned approach is required. Here are some options:

- Prevention – Do (k)not plant them. Planting knotweeds is an offense under the City's Environmental Protection Bylaw. Grow native and regional plants. Gardeners and landscapers can find alternatives to knotweed in the *Grow Me Instead* booklet from the Invasive Species Council of BC, which offer five recommended non-invasive native or exotic plant alternatives to 26 of the province's most unwanted plants.
- If you have knotweed on your property, please report it to Lydia Stratemann at Greenways Land Trust via email to [lydia@greenwaystrust.ca](mailto:lydia@greenwaystrust.ca). Given the re-infestation threat posed by knotweed on private land, you may be able to have your patch treated through the City's knotweed program, which is administered by Greenways Land Trust.
- Chemical control – herbicides are applied through a certified herbicide applicator. This may require three to five years of treatment. Current research suggests this is the most cost-effective and successful form of treatment.
- Mechanical control – only applied under specific circumstances on small patches and may include repeated cutting over years.

### Notes on disposal

Remnants of knotweeds require careful handling. Compost or dispose of chemically treated plants through curbside yard waste collection or at the drop-off centre. Bag and take untreated cuttings or seeds to the Campbell River Waste Management Centre (landfill) to dispose at a reduced tipping fee (\$65 per metric tonne).

Report large infestations of knotweeds on private land to the City by emailing [terri.martin@campbellriver.ca](mailto:terri.martin@campbellriver.ca).

*"There is quite a bit of knotweed out there, and working with Greenways Land Trust our approach will be to encourage landowners to take action on their property,"* Martin says. *"We'll prioritize sites to address depending on the volume of the reports we receive and the details around infested sites."*

### **Additional resources**

- Local and provincial organizations, such as Greenways Land Trust, the Invasive Species Council of BC and the Coastal Invasive Species Committee are great places to dive deeper into all things concerning invasive plants.
- In this video, <https://bit.ly/2IFNXqG> Sandra Milligan from *Greenways Land Trust* takes you on tour pointing out the top five invasive species in and around Campbell River.
- The *Invasive Species Council of BC* is also an excellent source for many articles, images, and news on knotweeds. Find them here: <https://bcinvasives.ca/>
- The mobile *Report-a-Weed BC* app "lets you report weed sightings anywhere in BC, in just a few simple steps. Your report will go to a BC invasive plant specialist, who will

coordinate follow-up activities with the appropriate local authorities,” states the website. Find it in your app stores and here: <http://reportaweedbc.ca/>

- Campbell River Waste Management Centre details <https://www.cswm.ca/>
- Yard Waste Drop-off Centre details <https://campbellriverrecycles.ca/>
- <https://bcinvasives.ca/documents/ISCBC-Factsheet-Knotweeds-170721-WEB.pdf>
- <https://bcinvasives.ca/invasive-species/identify/invasive-plants/knotweed>
- <https://bcinvasives.ca/resources/publications/grow-me-instead-booklet>

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