2017 Puget Sound Knotweed Forum Notes

Snoqualmie Casino
Snoqualmie, Washington

April 13, 2017

Pollinator-Friendly and Culturally Significant Native Plants

McKenna Sweet Doorman & Alex Harwell, Snoqualmie Tribe

The Snoqualmie Tribe started out with "The Story of the Moon" and spoke about changes in the Snoqualmie Valley throughout the years.
Knotweed arrived in the late 19th Century as an ornamental species used for erosion control.

They informed us about bees native to the Northwest such as:

- Minor bee (Andrena fulva) (fact: Minor bees are the only bees that can pollinate the Death Camas (Zigadenus venenosus))
- Mason bees (Osmia)
- Bumble Bees (Bombus)
- Sweat bees (Halictidae)
- Cuckoo bees (Thyreus nitidulus)

They explained the reasons people may be fond of Knotweed:

- good for pollinators
- edible shoots
- ornamental value
- extensive roots systems

They informed us of alternative plants to knotweed that are good for pollinators:
Early flowering:
Salmon berry, (Rubus spectabilis)
Nine bark (physocarpus capitatus)
Indian plum, (Oemleria cerasiformis)
Elderberry (Sambucus racemose)
Later flowering:
Ocean Spray, (Holidiscus discolor)
Yarrow (Achillea millefolium)
Douglas Spirea (Spiraea douglasii),
Salal (Gaultheria shallon)

Devils club (Oplopanax horridus) is a great replacement

Knotweed reduces biodiversity of plants.

Strategies for Avoiding Pollinator Herbicide Interactions

Justin Brooks, King County Noxious Weeds

KCNWCP makes reasonable efforts to schedule control work so that it will minimize potential interaction with bees, making reasonable efforts to avoid contact with pollinators where flowering plants are located and will schedule treatments during non-flowering periods and during times when the bees will not be active.

The KCNWCP is committed to working closely with landowners in project areas to re-establish desirable native and non-invasive plant species to replace the controlled noxious weeds. These replacement species offer an alternative pollen and nectar source, substantial benefits for bees and pollinators and also benefit water quality, fish and wildlife.

In 2016, 2.5 river miles was added to the upper Snoqualmie River.
A variety of management strategies were employed to alleviate pollinator/ herbicide interaction on flowering stands of knotweed. One strategy we took was to take the opportunity to treat historic areas of the project where knotweed was not flowering due prior control.

Toward the end of the summer all the historic parts of the project area were treated and the crew needed to move into initial treatment areas that still had flowers present.

Once flowering was almost over, crews would spray knotweed in the early morning and switch to injection during the heat of the day when pollinators were most active.

Flowering wrapped up in the middle of September on the Upper Snoqualmie. This gave us just enough time to get to the rest of the sites before frost. However, this was a learning experience and flowering definitely made control work difficult during this time. The take way was that previously controlled sites need to be controlled during flowering while flowering infestations need to be planned for late July and early August or late September early October. This is also a go time to help out on other projects that do not have flowering infestations

After a site has been in treatment for at least three years, it is a potential candidate for native plant restoration.
Timing is everything!
Control and replace- talking about replacing the food source.

Chemical methods, Herbicide, Surfactants, and Rates used by forum members (compiled from Fall 2016 survey):

Methods:

Foliar spray and injection are used predominately
Wick wipe, sheet mulching with chemical, weed whacking

Herbicide:

Polaris or Habitat @ .75 to 2%
Glyphosate @ 3-5% for spray and 200% for injection

Surfactant:

Agridex 5-1%
Competitor 1%
Hasten EA

Knotweed Project Summary: Lisa Nelson with Mountains to Sound Greenway Trust

Grant funded projects
Issaquah Creek – 300 parcels along creek, original acres was 30, last few years have been treating 5, 8,400 plants installed,
Little bear creek – 32 parcels located on creek, 6 acres of knotweed surveyed, treated about 3 the last few years,
Raging river – as of 2016 – 28 parcels, 32 acres infested. Installed 7,000 plants and stakes along raging river

Knotweed Project Summary: Upper Skagit River, Bengt Miller with Skagit Fisheries

Knotweed Program history:
This program was funded by the Nature conservancy in 2001
The programs accomplishments in 2016 consist of:
38 WCC Crew days. They surveyed 55 miles of mainstream rivers, 11,500 acres of floodplains.
They treated 105 knotweed patches: 61 new patches, 44 old patches, 1727 total stems, .32 acres of solid knotweed, 7.8 gallons of herbicide
Visited 70% of known patches

Pollinator-Friendly Plants Small Group Discussion

- **What category of plants do you prioritize when replanting after knotweed is controlled (understory, conifers, trees, shrubs)?**

Trees and shrubs
Site dependent
Concentrated; live stakes to shade/suppress other invasives
Conifers, tall trees, cuttings, fabric with willow weaved through
Whatever will fill the space initially, eventually trees
Massing shrubs, early successional

- **As a group, come up with 5 plants that you have found most successful for planting on knotweed sites.**

Nootka rose, salmonberry, willow, cottonwood, dogwood, ocean spray, spiraea, red flowering current, cascara, spruce, elderberry, snowberry, vine maple, Indian plum

- **As a group, come up with 5 pollinator-friendly plants that you have found successful on knotweed sites.**

Fireweed, salmonberry, spiraea, ocean spray (visually similar to knotweed), pacific ninebark, Indian plum, red flowering currents, red elderberry, thimbleberry.

- **How soon do you plant after initial treatment?**

Depends on the site; 2-3 years was the most common response. Still need to re-treat after several years.

- **What is one notable thing from this discussion you want to share with the room?**

Ocean Spray is visually similar to knotweed
Partnerships with bee groups can raise awareness
Mowing to control segment propagation in chemical free city
Diversity of plants when planting again
One method to replace knotweed: First year spray, return to plant that year, return every year to plant a little more and spray more, gives you time to see how these certain plants are doing in this area, etc.
The large stems of knotweed possibly being good (or bad) nesting for pollinators?
Even after spraying, it's still important to keep coming back to spray each year.