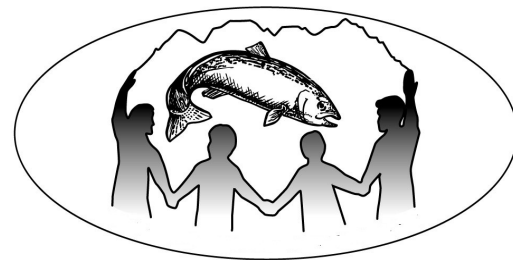


# WATERSHED CONNECTIONS



FVWC Newsletter: 2011 Fall

2011 Issue 4

[www.fvwc.ca](http://www.fvwc.ca)

## Message from the Coordinator: Rachel Drennan

Things are hopping at FVWC!

We have hired a new Project manager, Natasha Cox. A big welcome goes out to Natasha from all of us! She obligingly wrote an quick bio for us on page 3 of the newsletter. Natasha can be reached at [projectmanager@fvwc.ca](mailto:projectmanager@fvwc.ca) or [Natashia@fvwc.ca](mailto:Natashia@fvwc.ca).

We are also hoping to participate in a GPS/GIS training offered by Evolve Multimedia this fall. This will be a great chance to learn about great free software and mapping capabilities. Keep an eye on your email for more info on this very inexpensive training.

This fall we will have a couple of tree planting events. For those of you who have participated in the past you know it's a great day of fun and lunch is provided. Also a good way to get to know people in the "biz", biologists etc.



Great example of these fun tree planting events!

We are looking forward to a great fall ahead of us and welcome your questions, comments, or concerns. If you would like to find out more about the Coalition, have ideas for a watershed project, or would like to become involved in helping your local watershed, contact Rachel Drennan at [Rachel@fvwc.ca](mailto:Rachel@fvwc.ca), check us out on Facebook (<http://www.facebook.com/pages/Fraser-Valley-Watersheds-Coalition/105835432778627>), or call 604-791-2235.

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### Upcoming FVWC Meeting Date

**Date:** November 17th 2011  
**Time:** 7:00-9:00 pm  
**Location:** Chilliwack UFV campus  
Room TBD  
**Presenter:** Sheldon Reddekopp,  
Environmental Impact Biologist  
**Topic:** Elk Creek Monitoring Project

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### Bear Aware Comes To Mission By Zoey Slater



BRITISH COLUMBIA CONSERVATION FOUNDATION

Black bear sightings within the urban centre of Mission are on the rise. Last year over 250 calls were placed to the Conservation Officer Service to report bear sightings in Mission. This year, there have been close to 600 calls and bear season is not even over. Throughout the Fraser Valley we are witnessing an increasing trend of black bears in our communities. We will continue to see bears within our communities - followed by the destruction of many bears - unless we begin to manage our attractants more effectively. The major bear attractant in Mission is garbage. Bears have a keen sense of smell and they will travel great distances to track down this smelly attractant. Many bears are becoming human food conditioned by eating garbage. It may only take one meal (in this case, of garbage) for a bear to associate food with people. Once a bear finds a garbage food source they will likely return frequently to that food reward. Most bears are nocturnal, but bears that become conditioned to eating garbage and habituated to people often begin coming into communities during the day. In Mission

we have several bears that know when it is garbage day and take advantage of the overnight "bear buffet" available on the curb weekly.

Bear Aware strongly encourages all Fraser Valley residents to secure their garbage from bears. The District of Mission bylaw states that garbage is not to be placed curb side the night before but rather the morning of pick up before 8AM. Compliance with this bylaw will re-

tween humans and bears through education, innovation and cooperation.

To find out more about the Bear Aware program you can contact the Mission Bear Aware Community Coordinator at (604) 820-3795 ext. 2 or [mission@bearaware.bc.ca](mailto:mission@bearaware.bc.ca). To report a bear sighting, please call the Conservation Officer Service at 1-877-952-7277. Mission Bear Aware would like to thank our sponsors the District



duce the amount of garbage available to bears, and eventually, the number of bears in town.

This is the initial year of the District of Mission Bear Aware Program. Our mission is to reduce the conflict be-

of Mission and the Ministry of Environment. For further information and solutions visit [www.bearaware.bc.ca](http://www.bearaware.bc.ca).

## For the Love of Nature

by : Natasha Cox

*Natasha has been hired on for three days per week. She will be writing grant applications, preparing project reports, helping with program development, and other fun stuff!*

I am Natasha Cox, the Fraser Valley Watershed Coalition's newest member, and I will be fulfilling the role of Project Manager while working in collaboration with the Outreach Coordinator, Board of Directors, stakeholders, members, contractors and the public.

I have grown up in the Fraser Valley and as a youngster I played in streams, caught frogs, built tree forts, and was often found hiking in the forests. As an adult, I still play outdoors: bird watching, hiking trails, rock-climbing, frog catching, kayaking or canoeing rivers and lakes. I believe that my adventures in nature were, and are, an integral component fuelling my passion for the environment, its' biodiversity and its people. I hope my passion will translate into great projects, great partnerships and great successes within the Fraser Valley.

I am a Certified Environmental Professional-in Training, holding a BA in physical geography and ecology from the University of the Fraser Valley. Coupled with my education, I have gone on to gain hands-on train-

ing to compliment my theoretical knowledge. I was once a Sensitive Habitat Inventory Mapping (SHIM) technician, (where I hiked Sumas and Vedder mountain and Sumas prairie mapping out waterbodies, rare species and invasive species). I have worked with environmental not-for-profit organizations, some that are dedicated to placing lands in trust while protecting species at risk, and others promoting the education and stewardship of wetlands. I have also had the opportunity to conduct Oregon Spotted Frog and Bullfrog radio telemetry and husbandry. I

have been involved with ECO Canada, as the Fraser Valley Representative, to help connect environmental-minded individuals to build BC's capacity to increase networking opportunities. Further to my commitments to the environment, I enjoy engaging with special needs youth to become active in community events. I also enjoy playing my banjo and training my great dane!



Natasha holding a rare, Oregon Spotted Frog after finding him using radio telemetry.

## Invasive Knotweed, Part III Knotweed, a prime Teacher of Patience

By Birgit Gagné

This picture shows Knotweed coming up inside a house in Ireland - instant window decor and air refresher!



Courtesy of <http://www.steger-lewis.net/>

Should you prefer to keep Mother Nature out of your home, inside and out, the following pages will help you to consider your options. When it comes to Invasive Knotweeds, five methods to fight back are generally considered:

- 1) Cutting to the ground
- 2) Tarping/covering up
- 3) Digging and removing
- 4) Organic pesticides
- 5) Chemical pesticides

Preference of one over the other is matter of personal choice and ability and, very much so, the size of the infestation you deal with. No matter which method, or combination of methods, you choose, fighting Knotweed is a long-term commitment. Success comes only after 3 to 5 years! If not cherished for pie making or an incentive to exercise, at the very least this plant does teach patience and diligence!

Collected and adapted, here are recommendations, ideas, and recipes courtesy of Jeff Hallworth from the BC Ministry of Forests & Range, Wendy Bales of Larkspur Landscaping, and Tom Cadieux, the organizer 'extra-ordinaire' of the Knotweed fight on Harrison Bay.

### 1. Cutting

Knotweed can be suppressed, and eventually eradicated, by cutting it back throughout the growing season. This assures that photosynthesis in the leaves is never allowed to operate at high levels. Since, under the right conditions, small cuttings of Knotweed easily sprout new roots, don't use a weed-eater for cutting. Weed-eaters easily set up new small pieces and, hidden in longer grass or other moist places, they can begin new plants that re-establish themselves in the landscape or your garden.

The best way to cut down canes is probably a 'D' Axe or a Machete, as you can cut down several enemies at

once. Very small stems, just emerging, can be mowed with a lawnmower but the resulting cuttings should be picked up and bagged afterwards, unless the mowed area is in full sun so that the shredded pieces will dry and die. While cutting is a lot of work, in my opinion it is the preferred method for established stands, especially in environmentally sensitive areas. Like all other methods, it takes 3 to 5 years to finish this job. You can look forward to bi-weekly exercise during the spring, summer and fall!

### 2. Tarping

If the Knotweed infested area is covered in the early spring with tarps, old carpeting (contiguous and not torn or ripped) or thick cardboard (e.g. used to package refrigerators), its growth is immediately impeded. If you go that route, get the biggest, sturdiest pieces of cover material you can find - this investment can save you a lot of sweaty labour later. But, as the new shoots will act like tent poles and try to push your tarps, etc. up, assure the covering is securely fastened to the ground. Make also sure your covers overlap each other significantly, and that they are weighted down all along the seams and the perimeter, otherwise the sun-seeking shoots will be pushing through the gaps in no time. For the same reason try to avoid poking holes in the tarp when fastening them; preferred are heavy objects like sand (lots!) rocks, con-

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crete blocks, old tires, or such. If you need to use multiple sheets, seal any and all seams with duct tape. What growth does occur under the cover will be spindly and weak, deprived of sufficient sunlight, and can easily be broken down by walking on the cover, should the tarps, etc rise off the ground. This is why getting the biggest, sturdiest tarps you can find is a good investment. And be diligent in removing 'escapees' - otherwise all the work was for naught.

After 4-5 years, consider planting competitive native plants into the previously covered area, maybe with salmonberry (*Rubus spectabilis*) and thimbleberry (*Rubus parviflorus*) or a fast growing competitive tree like Sitka alder (*Alnus viridis*), Sitka willow (*Salix sitchensis*), Scouler's willow (*Salix scouleriana*) and Hooker's willow (*Salix hookeriana*).

For more detailed information, consider the document "Knotweed Control in BC" created by Jeff Hallworth at [http://www.coastalinvasiveplants.com/extension-tools/2010\\_Knotweed\\_Control\\_in\\_BC.pdf](http://www.coastalinvasiveplants.com/extension-tools/2010_Knotweed_Control_in_BC.pdf)

### 3. Digging up rhizomes - and bagging!

Disposal is crucial with this method - and a healthy back and strong arms! If you choose to dig, start where the canes come up most vigorously in your yard. In these areas you will discover the rhizome-clumps from which the Knotweed's shoots sprout each year. In older stands of Invasive Knotweed, these rhizome-clumps are large and woody. The rhizomes can go down 3 metres deep, making

digging probably the least favourable method. If you decide to weaken your 'smallish' Knotweed patch by digging up the main rhizome clumps close to the surface, and digging again new sprouts, the rhizomes must be disposed of properly. Bagging and deep landfill or incineration are the best methods. Do not leave a rhizome laying around, hoping it will dry out. Chances are you'll run out of patience before the knotweed does and it will sneak off on you, - so to speak. I have put knotweed canes in my freezer for several weeks before adding them to a compost pile.

### 4. Organic pesticides

Trials in the Queen Charlotte Islands (Haida Gwaii) of British Columbia using sea water sprayed on the foliage have demonstrated promising results, which may prove to be a viable option for eradication where concerns over herbicide application are too great. Keep in mind though, that salt, or for that matter vinegar, dish-soap, and boiling water, aren't healthy for the surrounding vegetation neither.

For a Garden Sprayer, here are from [http://www.ehow.com/how\\_4863528\\_organic-alternatives-roundup-weed-killer.html](http://www.ehow.com/how_4863528_organic-alternatives-roundup-weed-killer.html) 5 'organic pesticides':

#### Organic herbicide: Recipe #1 - Vinegar/salt/dish-soap

In a bucket, mix one quart of white vinegar with ¼ cup of salt. Stir till salt dissolves. Slowly add two teaspoons of vegetable based liquid dish soap. Gently mix and pour solution in your garden sprayer. Spray directly on the offending weeds at the base using the narrow stream setting. Best if used in direct sunlight and when rain

is NOT in the forecast. This organic alternative to Roundup Weed Killer works well for those weeds growing in sidewalk cracks.

#### Organic herbicide: Recipe #2 - Vinegar/dish-soap

Pour three quarts of white vinegar in a bucket or directly into your garden sprayer. Slowly pour in one quart of vegetable based liquid dish soap, gently swish to mix.

Spray on leaves and the base of the plants, again using a narrow stream. Be sure to spray only the plants you wish to kill as this is not a selective organic weed killer.

Do not water for three days. Reapply if rain falls before the three days are up.

#### Organic herbicide: Recipe #3 - Rubbing alcohol

Pour one quart water into your garden sprayer and add one tablespoon rubbing alcohol. Spray the undersides of the weed you want to kill with a thorough light mist. Again, use care not to spray non-target plants.

Increase alcohol content for stubborn weeds.

#### Organic herbicide: Recipe #4 - Salt

Lightly spray sidewalk weeds with water. Sprinkle weeds with a light layer of table salt. Lightly wet the weeds again. Be sure not to use too much water, you don't want to wash off the salt or cause runoff.

#### Organic herbicide: Recipe #5 - Boiling Water

Boiling water will kill weeds. This is the simplest organic weed killer. Boil water, and pour it directly on the offending weeds. Be sure to pour close to the weed to minimize

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splatter and use just enough to cover the weed(s).

### 5. Chemical Pesticide

Another tactic used to kill Invasive Knotweed, or *Fallopia japonica* (*Polygonum cuspidatum*), in the landscape or garden focuses on a chemical herbicide against Invasive Knotweed. The active ingredient recommended for use against knotweed is glyphosate. Roundup, or any other tradename under which glyphosate is sold, is usually applied as a foliar spray; meaning the weed killer is sprayed on the foliage of Invasive Knotweed. However, you can also inject glyphosate herbicide into the canes, using a special applicator or apply it by wiping or pour-on. The most effective method of control by herbicide is application close to the flowering stage in late summer or autumn as the plants draw back metabolites for winter storage. Some people spray glyphosate repeatedly throughout the growing season - essentially never giving the plants a chance to put on much height and therefore lacking photosynthesizing foliage.

There are several drawbacks with pesticides. They can expose the applicants, and the environment, to the potential side effects. Many pesticides also kill randomly. Other species' roots touching the treated knotweed rhizome can be affected to the herbicidal action of the treatment applied, potentially damaging or killing desirable vegetation. Glyphosate is also toxic to aquatic organisms. This is not a good combination with an invasive that often grows close to water.

Pesticides cost money and application, especially stem application, is labour-intensive, making it even more expensive for large areas, as treated by provincial or federal agencies. Furthermore, we do not save time by applying a chemical treatment as, through the weakening effect of the herbicide, emergent canes are weak and spindly and the plant will not be suitable for injecting glyphosate after the third year. The fourth and 5th year remaining emerging canes have to be diligently cut off to prevent the rhizome from recovering. Hence herbicide treatments take also 3-5 year to be effective but endanger the environment with their side effects.

### Disposal

The reasoning behind the elaborate removal and disposal provisions so often mentioned as necessary comes from UK lab reports where Knotweed has been able to regenerate, albeit under favourable conditions, into new plants from plant pieces as small as 0.7 grams! Your average pea is a giant in comparison!

Interested in that phenomena and the cost that landfill disposal or incineration occurs, my 2010 study looked at the possibility to leave Invasive Knotweed canes right on the ground, where they have been cut. The study showed that leaving canes on the ground, where and as they are cut, won't allow them to re-establish themselves into living plants. 'Cut and drop' doesn't present a means to spread present infestations, under actual field conditions.

While the potential for propagation from stem pieces must definitely be

taken serious whenever we try to eradicate invasive Knotweeds, this trial supports the disposal of canes by 'cut and drop'. (Mind you, fire hazard from large, old dry canes is another story!)

**The two most important details in fighting Invasive Knotweed are:**

Never allow a cane to flower and set seeds! Make sure all plants are cut down before seeding.

Be aware that the canes are likely connected underground. What seem like several or many plants is likely only one, or a few plants, - but with a multitude of stems! So when you attack a given spot to eradicate Knotweed in that space, check the neighbouring area for up to 20 meters so you can be absolutely sure no canes from the same plants where overlooked during treatment. They can and will provide the rest of the plant with energy, essentially erasing all your hard work.

If you have any further questions or would like to have some help with fighting the invader, please contact Jeanne Hughes from the Fraser Valley Invasive Plant Council @ 604-615-WEED (9333) or email her @ [fvipc@shaw.ca](mailto:fvipc@shaw.ca). If you like, check out the website [www.fraservalleyweeds.com](http://www.fraservalleyweeds.com)! You'll find details

on our next AGM on October 6, 2011. And new faces are always welcome!