

# Welcome to the Winter 2010 Newsletter

One important function of the Yukon Invasive Species Council is to coordinate and collaborate among the membership and participate in regional and national projects. One national project is focusing on horticultural trades. It will educate on plants which are invasive and shouldn't be used in gardens but will provide a list of non-invasive alternates. The National Working Group usually meets via telephone conferences. The next in-person meeting will be on January 17<sup>th</sup> in Vancouver.



Spotted Knapweed is a priority species for early detection and rapid response in Yukon. To learn more about this species, read the fact sheet at [www.yukoninvasives.com](http://www.yukoninvasives.com)

*Photo: John Cardina, The Ohio State University, bugwood.org*

You are invited to browse through our website

[www.yukoninvasives.com](http://www.yukoninvasives.com) to stay updated on upcoming events and news. On the pages news and resources you will find fact sheets and publications relevant to invasive species issues in Yukon.

Our regular council meetings are open to everyone. The next meeting will be held on January 11<sup>th</sup>, 2010 at Environment Yukon #10 Burns Road. We will be meeting in the Main Board Room.

Best wishes to everyone for 2011.

## In this issue

Welcome	1
News from the council:	
Strategic plan	2
Financial support	2
Research project	2
Invasive of the month:	
Tufted Bird Vetch	3
A weed warrior's check list	4
Summer field work	5

## YISC Board of Directors

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 Bruce Bennett, Vice-president  
 Matt Ball, Treasurer/Secretary  
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## Yukon Invasive Species Council mandate:

Prevent the introduction and manage the spread of invasive species in the Yukon.

# News from the Council

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## The council's strategic plan is close to completion

Over the last few months the board of directors met several times to discuss the five year plan for the council. The five key priorities defined in the plan are:

- (1) Enhance collaboration and coordination to strengthen invasive species work in Yukon;
- (2) Increase research of invasive species in Yukon;
- (3) Secure funding for the council's operation and projects;
- (4) Increase the awareness of Yukoners about the impact of invasive species on the environment, economy, society and individuals;
- (5) Initiate and recommend regulations and legislative changes.

The board discussed how to move on to address challenges and to fulfill needs identified for the key areas. The discussion about tasks and actions is going on.

## YISC received financial support by the Yukon Environmental Network

YISC would like to acknowledge the support of the Yukon Environmental Network Fund .The fund is administered by the Yukon Territory Environmental Network (YTEN) and supports the efforts of Yukon's environmental groups in working on environmental issues and activities in the Yukon.

YISC was awarded \$1,855 to improve invasive species management in the Yukon by strengthening partnerships between governments, NGOs, industry, agriculture and the public to increase the amount of

cooperation and collaboration in invasive species management, and to improve efforts to protect the north from the effects of invasive species.

## An interesting research project is underway:

### The Effect of Climate Change on Invasive Species and their Impacts in Whitehorse.

This project involves researching and reporting on the impacts of invasive species in Whitehorse and recommended adaptation and prevention measures as a result of climate change. An overview of the current situation will be reported including a list of invasive species, evaluation of their impact on the environment, economy and human health and a summary of species of high priority to our neighbouring jurisdictions that are expected to move towards Yukon. This project will improve the understanding of the impact of invasive species on the environment and economy in Whitehorse.

The project is financially assisted by the Northern Climate ExChange, Yukon Research Centre of Excellence, Yukon College, Yukon Climate Change Secretariat, and Northern Strategy Trust.

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#### Resources:

**The Yukon Chamber of Mines has released their Best Management Practices:**

[http://www.yukonminers.ca/Libraries/Documents/BMP\\_RG\\_October28\\_FINAL\\_WebFile.sflb.ashx](http://www.yukonminers.ca/Libraries/Documents/BMP_RG_October28_FINAL_WebFile.sflb.ashx)

## Invasive of the Month:

### Tufted Bird Vetch

*(Vicia cracca)*



Flowers grow in a one-sided spike.

Photo: M. Rasy, University of Alaska, [bugwood.org](http://bugwood.org)

This plant is often found in gardens, waste places, abandoned fields and along roads. This species is adapted to a broad range of habitats and becomes established in disturbed areas. Tufted bird vetch has been found invading undisturbed forest habitats. Tendrils allow the plant to hold on to and climb up on fences and other vegetation. Dense growth of tufted bird vetch out competes other plants for sunlight, space and moisture. Like other plants in the pea family, tufted bird vetch alters soil conditions due to nitrogen fixation.

#### Prevention and control methods:

Tufted bird vetch is a high priority species in Yukon for early detection and rapid response. This means we want to manage infestations as long as they are still small.

Do not plant it in your garden. Tufted bird vetch is difficult to eradicate once it is established. You can try

to control it by cutting the plant. This is often effective since this species does not have the ability to re-sprout after cutting. You can also dig it up. Be careful to remove all the roots to prevent re-growth from the underground stem. Tufted bird vetch is spreading effectively by seed, therefore trimming and mowing is best done before seed set. Repeated treatments may be necessary

Tendrils allow the plant to climb up on vegetation.

Photo: Yukon Government



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#### Resources:

The Invasive Plant Council BC is holding a public forum in Vancouver on January 18 and 19, 2011

<http://www.invasiveplantcouncilbc.ca/special-events/>

New publication by the Invasive Plant Council BC:

Best Practices for Managing Invasive Plants on Roadsides.

[http://www.invasiveplantcouncilbc.ca/images/stories/documents/otherpublications/Weed\\_Guide\\_web.pdf](http://www.invasiveplantcouncilbc.ca/images/stories/documents/otherpublications/Weed_Guide_web.pdf)

# A Weed Warrior's Check List

YISC is fortunate to have great volunteer support in battling invasive plants. Some volunteers like to go out on their own, others join an organized weed pull event.

Here are a few things to remember:

**Stay safe:** Wear gloves to protect your skin: Some plants have spines or are even toxic! If you are working close to a road, be aware of the traffic and wear a reflective vest.

**Respect landowners:** If you intend to pull invasive plants on private property you have to ask beforehand for permission to do so.

**Ways of removal:** It depends on the species if pulling, cutting or whacking works the best. Ask the Yukon Invasive Species Council for advice.

## General rules:

- Pull or cut plants before or when they flower (middle of July is good timing).
- First-year plants may re-grow and can be cut again.
- Do not cut the plants anymore if the seeds are mature (dry), because chances of spreading the seeds are high. This worsens the problem over time.
- Pulling or cutting will have to be repeated over a number of years to deplete the seed bank.

**Disposal** depends on the plant species. Ask the Yukon Invasive species council for advice.

## General rules:

- All invasive plant parts should be placed in a clear plastic bag and left to roast in the sun to kill the seed because many plants (e.g. thistles, knapweed and daisies) continue to produce seed even after pulling or dead-heading.
- Bring the bags to the landfill, where they should be buried as soon as possible.
- Burning in your garden is not the best solution: Some plant seeds (e.g. spotted knapweed) will only be killed in an incinerator.
- Do not "recycle" garden debris into a public park or natural area.

- Avoid composting invasive plants, as this may not kill them.

**Keep informed** about invasive plants in your area: A great resource is YISC's website.

[www.yukoninvasives.com](http://www.yukoninvasives.com)

## Report any new infestation to:

Yukon Invasive Species Council:  
[info@yukoninvasives.com](mailto:info@yukoninvasives.com)

or

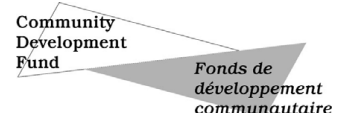
Environment Yukon  
Wildlife Viewing Biologist  
Phone: 867-667-8291  
Toll free (in Yukon): 1-800-661-0408 ext. 8291  
Email: [wildlife.viewing@gov.yk.ca](mailto:wildlife.viewing@gov.yk.ca)

## Contact

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# Summer Field Research

## Native Plants

### About the project

In spring, Jamie Leathem UBC masters candidate, gave an overview of her research project: “My project involves measuring species traits and abundance in plots by the side of the Klondike Highway and 50m in from the road. In gathering trait data, I hope to create a model that can predict whether introduced species are likely to become invasive. I will be also testing whether weedy natives are using a slightly different suite of traits than weedy invasives. Surveying communities 50m from the road will help us understand what suites of traits are characteristic of non-weedy species, as well as how many invasives are successful away from the roadsides (which are expected to be few to none, but could be interesting to quantify). In addition, I will ask the more fundamental community ecology question of whether traits structure community assemblages.”

### A great time in Yukon

Early this summer, Jamie Leathem drove up from Vancouver to work on her project. We had a chance to meet here at a YISC monthly meeting. Recently, I asked Jamie for an update of her project and here is Jamie’s story:

“My research assistant and I had a great summer surveying vegetation on the side of the road. We camped comfortably in YG campgrounds and got friendly honks from RV’s (which to us was more heart-attack inducing than I would guess they intended) and had to explain to every RCMP officer that drove past that no, we didn’t lose anything.

### How we carried out the survey

We surveyed a total of 43 sites along the North Klondike Highway between Whitehorse and Dawson and created temporary plots 30 m long (parallel to the road) and 5 m wide. We identified most plant species in these plots (with the unfortunate exception of some grasses and willows!), sampled species abundance and measured functional traits. Functional traits are plant traits that relate directly to plant performance. For example, we measured plant height which has been shown to provide an indirect measure of rate of growth. We also measured specific leaf area (SLA) (leaf area divided by mass), which is a measure of how much energy is put into leaf production, i.e. whether leaves are “expensively” constructed (use a lot of a plant’s resources, tend to live a long time, and withstand

stressors) or “cheaply” constructed (generally fast-growing and thinner). We will compare the values of these traits between native and invasive plants to detect differences in plant “strategy” between the two groups

Using combined measurement functional traits with other traits such as ‘invasive status elsewhere’ and mode of dispersal, we hope to show whether a specific suite of traits categorizes plants that become invasive in Yukon. Identifying such “trait syndromes” may be helpful in evaluating other potential invaders for the level of threat they pose to wild Yukon ecosystems.

Another aspect of the project involved searching 50 m away from the road at each of the 43 sites for signs of introduced or invasive species having penetrated the forest or other non-roadside vegetation. We only found invasives at three sites, all of which had been disturbed by fire in the past 20 years.

### The results

Throughout this process we learned to identify Yukon’s roadside species and got lots of practice at making project management decisions in the field. When we found out the roadside mower might be hot on our heels ready to mow down our sampling areas, we worked long days to collect data before all the vegetation became exactly 6 inches tall. I had visions of myself chained to a soapberry bush in order to delay the mower while my field assistant furiously measured plant height. Fortunately for all involved we got everything done on time and no such dramatic steps were necessary.

As for the trait differences, we will not see any results until we finish weighing all our leaf samples. We have over 5000 leaves (!) but are nearly done. We expect preliminary results in January or early February and will send them along.”

Jamie Leathem, MSc Candidate  
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#### Resources:

##### Center for Invasive Plant Management: Winter newsletter

See below for some interesting articles from the Center for Invasive Plant Management newsletter. These include programs to stop movement of firewood from contaminated areas, and opportunities to take short course on weed biology/management as well as insect pest management.

<http://www.weedcenter.org/newsletter/docs/CIPM-Quarterly-2010-winter.pdf>