

### News from the Council

After a relatively quiet summer at the Yukon Invasive Species Council office, the board of directors and the coordinator dove back into work. Here is the good news: the council received a contribution from the federal Invasive Alien Species Partnership Program (IASPP) to support the growth of the council. With this in mind we started planning for a workshop in February. We also surveyed the membership to find out what our members' priorities are. Ongoing is our engagement in cooperation across the border. YISC contributes to the National Invasive Species Council which is the umbrella organization of all the councils across the country and the Borders North group which encompasses councils in the north. The National Invasive Species Council presently works on three projects that are a framework for a national horticulture project, a national Spotter's Network and the National Invasive Species Forum to be held in Ottawa.

Earlier this year, the council received financial support through the Yukon government Environmental Awareness Fund. This allowed us to accomplish projects such as the placement of display ads in the local newspaper to raise awareness about invasive species, and an information sheet on recommended practices for the industry to prevent the introduction of invasive plants into the backcountry for the Geosciences Forum in Whitehorse.

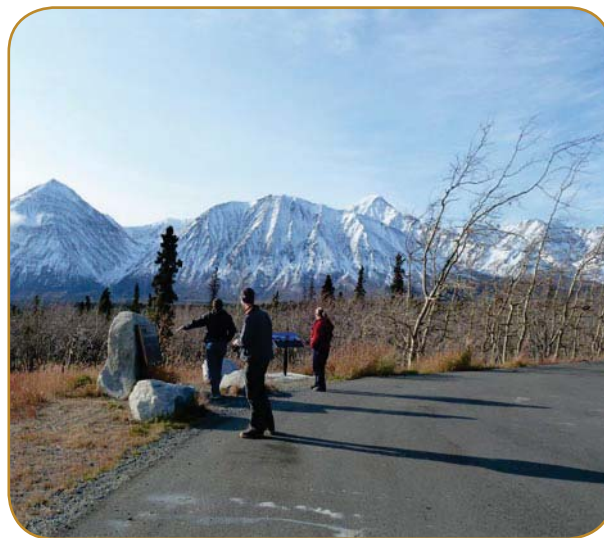
Planning for the one day workshop in February, which will bring members, partners and the public together, is under way. In the morning the presentation sessions will focus on local research and knowledge. Networking and a guided participatory session to identify challenges, form new ideas and propose solutions for a coordinated approach to dealing with invasive species issues in the Yukon are planned for the afternoon.

More details about the workshop will be available soon. Please contact [info@yukoninvasives.com](mailto:info@yukoninvasives.com) if you are interested in helping with the planning.

Andrea Altherr, coordinator YISC

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*Field trip to Haines Junction.*

All pictures by Andrea Altherr unless otherwise indicated.

### Board of directors:

Kirstie Simpson  
Bruce Bennett  
Lloyd Freese  
Nathan Millar  
Toos Omtzigt  
Jim Dillabough

# Monthly Meeting in Haines Junction

On October 17, 2011 for the first time ever, a monthly meeting was held outside of Whitehorse. Lloyd Freese invited us out to the Junction for a tour along the Haines Highway to show us some of the invasive species he has been monitoring and managing in the past fifteen years. The weather was in our favour, we had blue sky and there was no snow on the ground yet! This time of the year the only plants still green along the roads are the introduced ones! It was striking how easy it is to recognize the invasive plants along the Haines Road without even getting out of the car.

Board and council members learned about invasive species and about introduced species which have potential to become invasive. Bruce Bennett helped us identify the species we found at the pull-out above Kathleen Lake, at the trailhead to the rock glacier, at the Dezadeash Lake campground and along the Mush Lake road.



We stopped along the highway at the site where creeping thistle (*Cirsium arvense*) grows. So far this is the only known location in the Yukon. Creeping thistle, also known as Canada thistle, is one of the most invasive species in North America and is a noxious weed in most jurisdictions throughout Canada and the USA,

including Alaska. Lloyd explained that several times during the summer he snips the shoots which arise from deep and extensive horizontal roots. The patch hasn't been growing significantly over the years. The plant grows in clonal patches of all female or male plants. As a result, some patches produce seeds and others do not. This patch is obviously strictly female and cannot produce viable seeds. If ever a male plant would come along, the flowers would become pollinated and as a result, would expand their range. Introduction to new areas occurs mostly by windborn seed, or sometimes by root fragments which are capable of producing new plants.

We stopped at the Kahleen River where Lloyd showed us didymo, an alga also known as "rock snot". Didymo has been found in several locations throughout the Yukon and is considered a potential invasive species. It can degrade fisheries, the aquatic ecosystem, and the look and feel of lakes and rivers. We discussed the present signs which talk about fish species found in the river. Places like this river access would be well suited for awareness signs of possible invaders and how to avoid their introduction.



*Lloyd mentioned that the alga has been growing here as long as he can remember.*



*At Dezadeash Lake the group looks at cicer milkvetch. Sweetclover grows in the back ground.*

During the construction of the highway, soil from the experimental farm outside of Haines Junction was used. Most likely some of the introduced plants came with the soil as contaminants. Others, such as the grasses smooth brome, crested wheat grass and red fescue were seeded in reclamation projects. Unfortunately not all the negative effects of these species were known at the time. To help the industry making the right choice in reseeding projects, the Yukon government is working on an update of the revegetation guidelines.

Bruce showed us Cicer milkvetch (*Astragalus cicer*), an invader which most of us had not noticed before. Bruce remembers that Cicer milkvetch, a legume, was already growing in big clumps in the roadside ditch of the Haines Road back in 1995. This year for the first time, Cicer milkvetch has been seen on the South Klondike Highway north of Carcross, indicating it has the potential of spreading outside seeded areas.

example of a native gone wild as a response to climate change, or it might be a species that came from Europe.



*Cicer Milkvetch*



*We are looking at lucerne and smooth brome.*

When we got out of the car on the Mush Lake road, it was evident what species Lloyd wanted to show us. No, the plants were not flowering anymore and no tall stalks were seen, but the smell got our attention! Yes, oxeye daisy has a very distinctive smell. Lloyd explained that this area has been used as a pasture and he has seen the daisies growing here since he can remember. Looking around, we also found two species which are considered native but have shown invasive traits and have expanded their range significantly over the last few years: Narrow-leaved hawkweed (*Hieracium umbellatum*) and American vetch (*Vicia americana*). Even though narrow-leaved hawkweed is native, it never has spread that widely. It is not clear whether this hawkweed is native or brought in. It could be an

Following is a list of species we saw on the field trip:

#### **Invasive**

- Reed canary grass (*Phalaris arundinacea*)
- Smooth brome (*Bromus inermis*)
- Lucerne (*Medicago falcata*)
- Quackgrass (*Elytrigia repens*)
- Crested wheat grass (*Agropyron pectiniforme*)
- Narrowleaf hawksbeard (*Crepis tectorum*)
- Oxeye daisy (*Leucanthemum vulgare*)
- Scentsless chamomile (*Tripleurospermum perforata*)
- Creeping thistle (*Cirsium arvense*)
- Yellow and white sweetclover (*Melilotus officinalis*)

#### **Introduced and persistent – potentially invasive**

- Alsike clover (*Trifolium hybridum*)
- Red clover (*Trifolium pratense*)
- Red fescue (*Festuca rubra*)
- Alfalfa (*Medicago sativa*)
- Cicer milkvetch (*Astragalus cicer*)

#### **Rapidly spreading - potentially native**

- Narrow- leaved hawkweed (*Hieracium umbellatum*)
- American vetch (*Vicia americana*)



Seeds of lucerne are sickle shaped



During a CBC interview Bruce talks about sweetclover and other invasive species

Seeds of alfalfa are curled



### Leafy spurge:

On the other hand this was not the best summer to be a leafy spurge (*Euphorbia esula*) plant in the Yukon. Sebastian Jones keeps a close eye on the leafy spurge at Henderson's Corner near Dawson. He reports: "Unlike 2010, the 2011 summer weather was cool and damp. In 2010, despite four heavy plucking visits, the plant appeared to be spreading outside of its delineated boundaries. In 2011, I visited three times. On my first visit in early June, I only found a half dozen stems. On my second visit in late July, I found a moderate growth but no flowers evident and during my final visit in late August the few struggling and puny saplings were plucked. Were it not for the resilience shown in 2010, I might be tempted to speculate we are winning the war here."

## Summer Review

### Hawkweed species:

The potentially native narrow-leaved hawkweed (*Hieracium umbellatum*) has been previously observed mainly in the south of the territory, but has started to spread north. In Whitehorse we saw an increase of density along the Alaska Highway where it is out competing sweetclover in some places (as observed in McRae, south of Whitehorse).

Meadow hawkweed (*Hieracium caespitosum*) is spreading along the Alaska Highway west of Watson Lake. Meadow hawkweed, also known as "King Devil", is highly competitive and aggressively invasive, rapidly spreading through above- and below-ground runners, seeds, and root buds. Root buds sprout to produce new plants and are a successful form of vegetative reproduction used by hawkweeds. Hawkweeds are high-speed invaders that can replace native vegetation in open, undisturbed natural areas, such as meadows and farm land, reducing forage crops and threatening biodiversity.

This review highlights a few species of concern

### Sweetclover:

This past summer was a cool and damp one for most of the Yukon. However, relatively warm temperatures in September and October extended the growing season for plants. On our fieldtrip to Haines Junction on October 17 we still found flowering sweetclover (*Melilotus officinalis*). It looks like the growing conditions for sweetclover were favourable this summer. In August we could already find small sweetclover plants growing and blooming. In previous years these plants wouldn't have flowered but would have made next year's mature plants. Sweetclover usually shows a two year growing cycle. Every year the Yukon Government spends between \$80,000 and \$100,000 on mowing sweetclover along the highways.



*Meadow Hawkweed on the Alaska Highway west of Watson Lake.  
Photo: Bruce Bennett, YG*



*Meadow Hawkweed, Photo: Bob Drinkwater*



*Narrow-leaved hawkweed can be distinguished from meadow hawkweed by the presence of leaves on its stems, the absence of persistent basal rosettes and the absence of stolons (a creeping horizontal stem or runner that takes root at points along its length to form new plants). Both pictures show narrow-leaved hawkweed (*Hieracium umbellatum*)*



### **Perennial sow-thistle:**

This year Perennial sow-thistle (*Sonchus arvensis*) expanded its range. It is growing just along the edges of the highways and does not spread into the ditches yet. Sow-thistle cannot be controlled by mowing, it needs chemical treatment.

## Environment Fair May 2011

On May 14, 2011, the second Yukon Environment Fair was held. YISC had a booth to display posters, herbarium sheets with the worst invaders and a display on aquatic invaders. The displayed slimy alga didymo, also known as rock snot, drew lots of attention although only the brave visitors dared to touch it! At the fair, members of the council had lots of opportunities to answer questions and engage the public in discussions about invasive plants. The fair was a huge success and was attended by more than 1300 Yukoners.



*Rock snot display featuring a sample, brochures on aquatic invaders and a map with confirmed locations of didymo.*



*Minister Elaine Taylor takes the opportunity to discuss rock snot and her own observations with Lloyd Freese.*

## Summary of the Membership Survey

A short survey was conducted to learn about areas and activities YISC members are interested in and where they set priorities for the future.

23 out of the 70 members took part in the survey.

Following is a short summary of the findings:

The majority of our members like to receive information by email but stated they would like to participate in meetings with specific topics.

Asked for their opinion on effective and important ways of distribution of information, our members top-rated a website, newspaper articles, YISC newsletter and public talks.

Top-rated actions our members would like to see in the near future are: work with decision makers towards a culture of concern and action, develop best management recommendations for specific groups and activities and increase media presence on invasive species issues.

We will incorporate the results of the survey in to our up-coming workshop and they will guide us in the board of directors' strategic planning discussion in future years.

Thank you to those who have indicated they would like to engage in one or the other area, please stay tuned, we will get back to you!

### Yukon Invasive Species Council

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

Membership is free. To sign up as a member please download the form on [www.yukoninvasives.com](http://www.yukoninvasives.com).

To report invasive species contact [info@yukoninvasives.com](mailto:info@yukoninvasives.com)

# Geo Science Forum, November 16-19, 2011 in Whitehorse

The recent mineral exploration boom in the Yukon is increasingly exposing the backcountry to human activities. To raise awareness about measures to manage the potential spread of invasive species, YISC developed an information sheet for the industry representatives at the forum.

## Managing the Spread of Invasive Species

### Prevent the introduction and spread of invasive species.

#### What are invasive species?

An invasive species is not native to a particular ecosystem and has the potential to pose negative impacts on humans, animals, ecosystems or the economy.

#### Ecological impacts of invasive species

- ⇒ Spread and establish quickly in new areas.
- ⇒ Cause biodiversity loss and change in ecosystem processes.
- ⇒ Alter wildlife habitat, accelerate soil erosion and stream sedimentation.
- ⇒ Reduce productivity and compete with and replace native vegetation, including rare and endangered species.

#### Economical consequences

Invasive plants can increase the cost of closing down an industrial site or be costly to manage when road sides or right-of-ways are affected.

#### How they spread

Invasive species can be introduced in soil, as seed-mixes, as erosion control mixes, or in plant products.

Once introduced, species can spread further from one region to another. Seeds and viable plant parts can be distributed on equipment, trucks, all-terrain vehicles, boats and in bilge waters.

This can especially become a problem as areas formerly not exposed to human activities become exposed to resource extraction and development.

**Yukon Invasive Species Council**

[www.yukoninvasives.com](http://www.yukoninvasives.com)  
[info@yukoninvasives.com](mailto:info@yukoninvasives.com)



## Recommended Practices

- ⇒ Learn to recognize invasive species and report any occurrences to government land managers as soon as possible.
- ⇒ Minimize disturbance of the natural vegetation and exposure of mineral soils as much as possible.
- ⇒ Avoid unnecessary compaction of soils.
- ⇒ Avoid disturbing weed infested soil from road sides or remove and contain the soil to avoid spreading the weed seeds.
- ⇒ Clean equipment thoroughly before moving to a new site, particularly high seed and soil catchment areas like tracks, wheel wells, mulching blades etc.
- ⇒ Use native species (or consider using natural succession) to reclaim your site.
- ⇒ Have your seed mix tested for weed content and don't use the seed if there are invasive plants present in the mix.
- ⇒ If clearing or mowing, cut weed-infested crops prior to seed formation.
- ⇒ Ask for guidelines for collection and disposal of invasive plant material.
- ⇒ Talk to knowledgeable local experts.

**Report** invasive species findings with GPS-coordinates or exact location to: [info@yukoninvasives.com](mailto:info@yukoninvasives.com)

#### For more information contact:

**Yukon Invasive Species Council**  
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Funding provided by Environmental Awareness Fund

## From the Outside

### Alaska:



*The Alaskans got Cartoonist Chad Carpenter (who does the "Tundra" cartoons) designing a road sign.*

### Alberta:

Alberta Invasive Alien Species Risk Assessment Tool - Online tool identifies potential effects of harmful species from outside Alberta

Alberta has a new tool to identify and evaluate potential impacts of land-based plants and aquatic organisms from outside the province. This will help government, companies and individuals coordinate early detection, rapid response and containment. Alberta's Invasive Alien Species Risk Assessment Tool, a web-based evaluation, looks at a species' likelihood of establishing and spreading, and its possible effects on an area. The tool focuses on aquatic organisms and land-based plants. It is a key component of Alberta's Invasive Alien Species Management Framework. To use the tool, visit [www.agriculture.alberta.ca/risktool](http://www.agriculture.alberta.ca/risktool).

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