



## What's up with YISC?

It is the time of the year to look back and review past projects and accomplishments, but also to look forward to the next year. Our program *Spotter's Network*, with the associated training workshops, was a great success. We held workshops in Whitehorse and with the overwhelming support of several renewable resource councils we expanded the program to four Yukon communities. In 2015, YISC will offer these *Spotter's Network* workshops in communities and will engage with new partners to include workshops tailored to industries.

In the last few month we started working on the outreach program *Grow me instead*. The goals of this program will include awareness of invasive plants in gardens, and suggest recommended alternatives, to achieve a vibrant and dynamic garden while contributing toward invasive plant management. Education and awareness are critical aspects of invasive species management. With educating the public and industry on invasive species, the harm they can cause to the environment, and how everyone can contribute to prevent their spread, substantial gain can be made over time.

Participating in an international conference is very inspiring. In October, the Weeds Across Borders Conference was held in Ottawa. Especially interesting were the presentations on community-based social marketing programs to advance invasive species objectives. Social marketing expands the focus of awareness to changing behaviour. Horticulturalist Ken Parker's presentation on the Seneca Nation's new native plant policy was fascinating. Ken works with local indigenous people to restore, preserve and maintain native plants that are significant to the culture of the Seneca people. The policy applies to public spaces and encourages

the reintroduction of native species as well as the removal of invasive and introduced horticultural plants.

During the conference, we participated in the yearly meeting with the Canadian Council on Invasive Species (CCIS). The CCIS recently developed a Horticulture Action Plan and a Spotter's Network Action Plan. These plans encourage collaboration amongst the provincial and territorial councils, enable working towards national goals and promote branding, standard messaging and information sharing.

Thank you for your continued interest and dedication to managing invasive species. From all of us at the Yukon Invasive Species Council, we wish you all the best for 2015.

Sincerely,

The Yukon Invasive Species Council team

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# A big THANK YOU!

A big thank you to our partners and supporters. In 2014, YISC received financial support from ECOAction, the Yukon government departments of Environment and Energy, Mines & Resources, Environmental Awareness Fund, Fish and Wildlife Enhancement Trust Fund, Association franco-yukonnaise (AFY), Canadian Council on Invasive Species (CCIS), Growing Forward Fund, Dawson Renewable Resources Council (DRRC), Mayo Renewable Resources Council (MRRC), Alsek Renewable Resources Council (ARRC), and Teslin Renewable Resources Council (TRRC).

YISC would like to once again thank our volunteers. As a non-profit organization that works with partners to fight the spread of invasive species, we are grateful for the dedication and devotion of our board of directors, coordinator and volunteers. Thank you! YISC received in-kind support from the City of Whitehorse, the Yukon Research Centre, the Invasive Species Council BC and the Alaska Exotic Plants Information Clearinghouse, the Yukon Conservation Society, Access Consulting Inc., and Environmental Dynamics Inc., as well as Yukon government staff. And last but not least, thanks to Jen Line for her efforts in delivering our Spotter's workshops.

Brett Pagacz, president YISC



*Participants in one of the workshops*

*Photo: A. Altherr*

*Creeping Thistle plants were removed and bagged for disposal*

*Photo: J. Line*

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Miranda Adam, director  
Sarah Corbeil, director  
Katie Fraser, director

## Contact

Andrea Altherr, coordinator  
info@yukoninvasives.com  
www.yukoninvasives.com

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is free, download the form on  
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# Funding programs in 2014



*Orange Hawkweed – a species of concern to the agriculture, is on the Spotter’s Network list.*

*Photo: L. Freese*

*Creeping Thistle. To prevent the seeds from dispersing, remove, pack in garbage bags and dispose of in the landfill.*

*Photo: A. Altherr*



In the last year the Yukon Invasive Species Council has carried out terrific work to raise awareness and to manage invasive species in the Yukon. Below are some of our program and outreach highlights from 2014:

**The ECOAction Community Funding Program** contributed for a second year to Yukon’s Spotter’s Network. This year we were not only able to host 7 workshops and information sessions in Whitehorse, but were also able to expand the program to the communities of Dawson, Mayo, Haines Junction and Teslin, where we received huge support from the local renewable resources councils. The Spotter’s Network workshop also became available in French! YISC partnered with the local renewable resources councils, the Association franco-yukonnaise (AFY), Yukon College, Wood Street School, environmental groups, and the mining industry. As a result of the Spotter’s Network program, more than 80 volunteers are trained in the identification of Yukon invasive species!

Data collected by the spotters were compiled and communicated with the Spotter’s Network volunteers. The data has been submitted to the Conservation Data Center (CDC) in Whitehorse, as well as the appropriate Yukon government departments.

Throughout the summer, we received a few reports of invasive species including Creeping Thistle, Perennial Sow Thistle, Common Tansy, Tall Hawkweed and Oxeye Daisy. Four plants of Spotted Knapweed were found at the Carcross desert and were removed. All the reports have been compiled and will help coordinate management efforts to contain the infested sites.

**With Growing Forward 2**, a federal and territorial funding program that is administered by the YG Agriculture Branch, YISC entered a multi-year funding agreement to work together with the agriculture industry. The aim of the funding agreement is to help educate and raise awareness on weed-free seeds, weed-free hay, and invasive weeds of concern to the industry. Additionally, YISC hopes to strengthen early detection and rapid response (EDRR) efforts with agricultural producers. The focus will be on invasive weeds that could become a major problem for farmers, such as Creeping Thistle, Orange Hawkweed, and Perennial Sow Thistle. YISC contributed the article “Can we prevent Tall Hawkweed from creeping up on us?” to the Yukon Agricultural Association’s newsletter ploughboy.

# Outreach activities in 2014

**Clay Cliff panels:** Researchers with the Yukon Research Centre have seeded native plant species along the pathway at the Whitehorse clay cliffs to re-vegetate this disturbed area. In this erosion control experiment, YISC partnered with the Yukon Research Centre and the City of Whitehorse in providing information for three interpretative panels. Text on the panel reads: Invasive species are a major threat to biodiversity on the planet. These introduced organisms (plant, animal, fungus, and bacterium) have negative effects on the environment, economy and human health. Invasive plants flourish in disturbed environments and permanently alter landscapes and ecosystem functions by competing with native plants for nutrients and water. Researchers hope to prevent the growth of invasive species by planting native species along the pathway.

**YISC** participated in the **Scope lunch talks** with a talk on “Cooperation on the science/policy interface, a case study of the Yukon Spotter’s Network”.

The Spotter’s Network project, initiated by YISC, is a pro-active approach to spot, report, and therefore contribute to the early detection and rapid response plan for invasive species. During the implementation of the project, YISC and Yukon government’s Interdepartmental Invasive Species Working Group (ISIWG) joined to communicate, exchange ideas and gain knowledge to enrich the decision-making process. The Spotter’s Network serves as an example of how citizen science and policy making interact successfully to work towards a shared goal. This project shows how two-way communication is beneficial to cooperation between stakeholders.

**At** the **Yukon Fish and Wildlife Management Board** meeting in April, YISC presented an overview of the Spotter’s Network program to the delegates and encouraged partnership between YISC and the RRCs.

**YISC** also held a presentation with the title “Invasive species – linking today’s knowledge to prepare for tomorrow’s challenges” at the yearly **Highways Foremans Conference** in April. A short overview of the effects of invasive species on the Yukon’s economy, ecology and health was followed by a discussion on the possible pathways of introduction, and the role highway workers play in following best practices. The information also included invasive plants of concern to the Yukon and current projects to prevent, detect and respond to invaders early.



*Clay Cliff pannel explain the stabilization project and inform on invasive species.*

*Photo: A. Altherr*



*White Sweetclover is tall growing and can obstruct visibility.*

*Photo: A. Altherr*

**YISC** participated in an open house in Destruction Bay hosted by the **Dän Keyi Renewable Resources Council** by informing the public on YISC and the Spotter's Network.

**What's** Up with Invasive Species in the Yukon? was the title of a presentation at the **Biodiversity Forum** on October 25, 2014. The presentation started with the current status and trends of invasive species in the Yukon, followed by some new discoveries, as part of EDRR and success stories where local Yukon residents have stepped up to the plate to manage and mitigate invasive species at locations such as the Carcross Desert and Takhini Hot Springs. Over the past year, education programs such as the Spotter's Network have provided public workshops to help direct EDRR efforts and to track known populations of those species that are considered the greatest threat to our environmental, economic and social realms.



*At the Fireweed Market. Photo: A. Altherr*

**For** the first time ever, YISC had a table at the local **Fireweed Market**: The display on the topic *Do you know what you grow?* started many discussions based on people's experiences. We had several visitors to our table share their experiences and point out changes caused by invasive species in their own gardens.

**Together** with the **Yukon Conservation Society** we organized a lunch-hour walk along the riverfront in Whitehorse. It is quite alarming how species such as Common Toadflax (also known as Greater Butter-and-Eggs), Bird Vetch and Perennial Sow Thistle have expanded their range within the city.

**Website and Facebook:** Updating and expanding our website is ongoing. You will find information on our programs, on invasive species including aquatic invasive species, links to resources such as reports, and information pamphlets. We also post a schedule of the upcoming events. YISC's website also provides a platform for research reports on non-native species in the Yukon. For example, you can access hard-to-find reports, such as the one on introduced Rainbow Trout in the upper Yukon River Basin.

Knowing that the Yukon has a big and engaged community of French speakers, we have translated some of the content of the YISC website into French!



*Greater Butter-and-Eggs,  
Photo: A. Altherr*

# Didymosphenia geminata

This past summer, Environment Yukon conducted a survey that collected DNA samples of didymo, an algae also known as “Rock Snot”. As a result of this survey, a map indicating the range of didymo in the Yukon was produced. Didymo may be a non-native plant and has an irregular cycle of blooming stages. Blooms might be accelerated by low phosphorus levels. Questions such as why is it blooming and where are still not answered and the impact of didymo is still unknown.

Environment Yukon visited several waterbodies to understand the distribution of didymo, a potential aquatic invasive species.

## Key Findings

- Didymo was more widespread than anticipated and occurred in all Yukon watersheds except the Southwest Alaska drainage (Copper River area). This survey gives a baseline for presence and not detected. It does not show whether didymo is a native species to Yukon, if it's spreading, or how it affects aquatic environments.

## Proposed Next Steps

- DNA analysis to understand if didymo is native to Yukon;
- To monitor didymo to see if it's spreading;
- To investigate what its impacts are to Yukon streams; and
- Continue to use educational programs to increase awareness and foster behaviours in Yukoners and visitors that prevent the spread of didymo.

## What is Didymo?

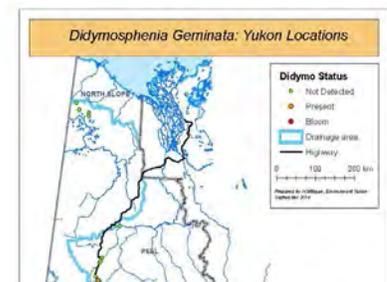
- An algae that can be invasive and form large, slippery mats that cover streambeds. These mats can degrade fisheries and the aquatic ecosystems by changing fish habitat.

## What can I do?

- If you think you've seen didymo, report the incident to
- 1-800-661-0408 ext. 5721 or [fisheries@gov.yk.ca](mailto:fisheries@gov.yk.ca).
- If possible, take a photograph, a small sample for identification, and note the exact location. Do not freeze the sample.
- Prevent the spread of didymo with CHECK, DRAIN, CLEAN. Freezing footwear solid overnight ensures that you cannot spread didymo to a new location.
- If you find didymo on equipment after leaving a site, throw didymo in the garbage and not down the drain.

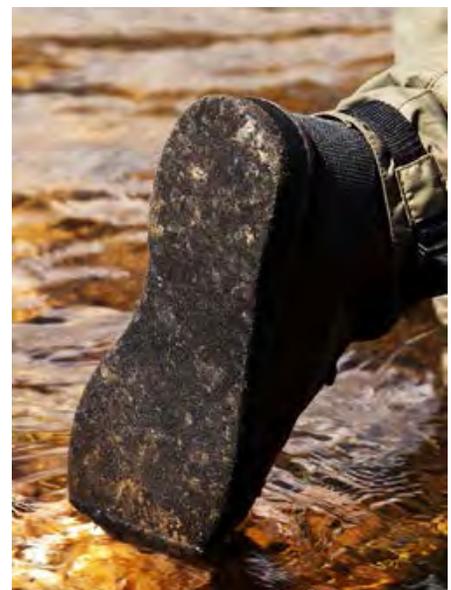


*Didymo grows on clumps and ropes on rocky streambeds. It can be brown, yellow, or white. When you pull it apart it feels rough like wet cotton wool.*



*Yukon locations: See the map on [www.yukoninvasives.com](http://www.yukoninvasives.com)*

*Didymo can live several weeks when attached to felt soles (YG photos)*



# Spotlight on Creeping Thistle



*Thank you to the class from the Yukon College for the great support!*  
*Photo: J. Line*

In 2013, YISC was informed of Creeping Thistle at the pond located below the Takhini hot springs. Creeping Thistle is an aggressive agricultural weed that has the potential to reduce crop yields by 100%. As the location of the Creeping Thistle is on privately owned land, it poses an additional challenge for the eradication of the plant. Fortunately, however, the owners were very understanding and cooperative, and allowed the mechanical removal of the plants from their property. In August

2014, a class from the Yukon College's Renewable Resources Program, lent their hands to the cause, and was successful in removing the majority of the Creeping Thistle plants, while also learning about the threat of invasive species in the Yukon. In order to ensure success in management of this invasive plant, it was recommended to mow or cut the plant to reduce root reserves and seed production. This should be done repeatedly for several years.

# Community weed-pull



*Native vegetation growing along the road.*  
*Photo: A. Altherr*

Have you been out pulling Sweetclover, Oxeye Daisy or other invasive plants this year? Volunteers in several subdivisions around Whitehorse get together and pull invasive species, mainly Sweetclover. It takes a few years of repetitive and dedicated pulling, but it can have great success in controlling the spread of invasive species. The success of these pulls can be seen on several roadsides in the Yukon. In some areas, for example, native vegetation including Locoweed and Fireweed is re-establishing itself. Don't forget to submit your weed pulling locations and hours to [info@yukoninvasives.com](mailto:info@yukoninvasives.com), or contact YISC if you want to organize a weed pull with your community association! In 2014, 150 hours of volunteer time were recorded by 63 volunteers. The City of Whitehorse contributed more than 200 hours of mechanical removal of high priority species such as Perennial Sow Thistle and Toadflax.

# Invasive insects

Invasive insects are currently not being tracked in the Yukon. There is however, a record of the 7 Spotted Ladybug (also known as the 7 Spotted Ladybird Beetle) at Keno Hill. The 7 Spotted Ladybug has demonstrated negative effects to native ladybugs including the Transverse Ladybug, which is currently being assessed by COSEWIC. Effects on the ecosystem from the 7 Spotted Ladybug are not clear. Ladybugs are used to control aphids in greenhouses. It is unknown which species of ladybugs are imported to the Yukon. As they are not known to survive the winter in greenhouses, it is undetermined whether they would persist in the wild in the Yukon. Typical species of predatory ladybeetles used in western Canada (likely including the Yukon) are: the Convergent Ladybird Beetle, *Hippodamia convergens*, and the Two-spotted Ladybird Beetle, *Adalia bipunctata*.



*7 spotted Ladybug at Keno Hill,  
Kelcy Tousignant (YG).*

# Weeds and agriculture

## **Can we prevent Tall Hawkweed from creeping up on us?**

Undesirable weeds threaten productivity on rangeland and agricultural fields in neighbouring provinces. The Yukon is in the fortunate situation of not needing to battle heavy infestations at this point. The Yukon Invasive Species Council (YISC) targets some of the nasty weeds in an early detection and rapid response program which relies on cooperation with people connected to the land.

Weeds or invasive species are often introduced to new areas by humans. Examples include road side seeding, horticulture escapees and weedy seeds used in agricultural projects. Most jurisdictions have noxious weed regulations that regulate species such as Orange Hawkweed, Perennial Sow Thistle and Creeping Thistle. The lack of invasive species regulations in the Yukon means that Yukoners need to act responsibly. We can reduce the chance of introducing noxious weeds by using Canada Certified Number 1 seed and when importing hay only bring in Certified Weed Free Hay.

Local farms and growers in the Yukon are important to our economy. Taking the steps to act responsibly, by not seeding or importing a problem species, is a good start. It is equally important to keep an eye on weeds growing on the land. By spotting and reporting nasty weeds early, we have a chance of controlling them and preventing their spread.



*Tall Hawkweed,  
Photo: Marc Schuffert, FLNR.EX.*

# Weeds Across Borders



*Orange Hawkweed is a species of national concern.*

*Photo: A. Altherr*

The Weeds Across Borders Conference in Ottawa October 14-17, 2014 has been hosted this year by the Canadian Council on Invasive Species (CCIS) with the support of an international advisory committee. Weeds Across Borders is a biennial conference that was last held in 2012 in Mexico. The conference brought representatives from government and non-profit organizations from Canada, the United States and Mexico together. The goal of the conference is to provide a forum for educating, sharing and disseminating knowledge about invasive species management, regulatory issues and concerns about invasive species spread within North America as well as to strengthen collaboration across the borders. The CCIS has been formed in 2013 to strengthen coordination and collaboration within the Invasive Species Councils across Canada. YISC is a member of the CCIS (<http://canadainvasives.ca/>). YISC was able to send two delegates to participate in the conference. One outcome of the conference is the call for stronger collaboration on the federal government's level between the three participating countries.

*Bird vetch started to spread in Whitehorse.*

*Photo: A. Altherr*



*Spotted Knapweed was found at the Carcross Desert.*

*Photo: B. Legler*



**Have you noticed unusual plants or animals?  
See it - Report it  
[info@yukoninvasives.com](mailto:info@yukoninvasives.com)**

# Horticulture outreach



The horticulture industry is both a historical and current source (also known as a pathway) of invasive plants, and a major link in their ever-increasing distribution. Close to 60% of invasive plants arrived in Canada as agricultural crops, landscape plants, ornamentals, and plants for medicinal and research purposes.

Invasive plants continue to be sold in many nursery and gardening outlets across the Yukon, and are traded as seeds, transplants, or starter plants, by gardening and landscaping enthusiasts. We all love hardy plants such as Common Tansy and Oxeye Daisy, but unfortunately these unwanted invaders are capable of jumping the garden fence and can cause long-lasting changes to nearby ecosystems. If left unmanaged, invasive species can negatively impact wildlife and wildlife habitat, including species already at risk. They can also impact human health and safety, as well as local economies.

It is time to make a difference! To address this known pathway, YISC would like to start working closely with industry representatives, landscape architects, gardening enthusiasts, and nurseries to address horticulture as a pathway of plant invasion.

Gardeners and landscapers play a key role in helping to prevent the introduction and spread of invasive plants—individuals can make a powerful difference! By following best practices and using recommended alternatives you can achieve a vibrant and dynamic garden while contributing toward the most important part of invasive plant management: prevention.



*I am buying non-invasive ornamental plants for my hanging baskets!*

*Photo: A. Altherr*

*I removed Caragana, an invasive shrub, from my garden.*

*Photo: A. Altherr*



## YISC Mission Statement

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