



Volume 7  
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# Unwanted Invaders

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**Invasive Species Council of Manitoba**  
 c/o 5006 Roblin Blvd. Winnipeg, MB R3R 0G7

## Spotted Knapweed and Early Detection and Rapid Response

By: Jessica Wood, Technician, Invasive Species Council of Manitoba and  
 Doug Cattani, Assistant Professor, Plant Science, University of Manitoba .

Spotted Knapweed was first introduced into North America in the early 1900s with contaminated crop seed. Hailing from Eastern Europe, it now infests much of the western United States and Canada. Despite its rapid dispersal, this invasive plant was not detected in Manitoba until the 1980's when it was discovered near Sprague, Manitoba. It was thought to have been isolated at that site until 2010. In 2010, new introductions were confirmed in the RMs of Brokenhead and Springfield, with a few isolated patches in the RMs of Reynolds and Piney. New sightings have been confirmed in the 2013 field season. The sightings have been in Winnipeg, the RM of Cartier, Brandon, Griswold and Deloraine. It appears the problem is spreading and is much worse than previously thought.

Early Detection and Rapid Response (EDRR) has been instrumental in the coordination of sightings and providing information about Spotted Knapweed. Through education, training and partnership, the Invasive Species Council of Manitoba (ISCM) was able to obtain information on new sightings almost immediately. Partners in areas with Spotted Knapweed have been able to act quickly in response to these populations and have been using herbicides and biological control (separately) to battle these plants. The Manitoba Weed Supervisor Association currently has an action plan in place for knapweeds and has been able to act quickly.

New populations have sprung up very quickly and it appears Spotted Knapweed is moving along rail lines in Manitoba. It has been said that Spotted Knapweed is a worse invader than Leafy Spurge or Purple Loosestrife – two well-known invaders in Manitoba. However, the population size and distribution in Manitoba is still low enough that action can (and is) being taken to keep the populations at bay. We need to stay on top of the problem in Manitoba to protect our natural assets and agricultural land.

Spotted Knapweed looks like Canada Thistle from afar. It has pink/purple flowers, can grow up to 1.5 meters and often has multiple stems, giving it a thistle-like appearance. Upon closer inspection you will be able to see some major differences. The flowers have dark colored bracts giving the flower a spotted appearance (thus its name). The leaves are small and pinnately divided and the stems have no spines like Canada Thistle. If you feel that you have seen Spotted Knapweed, please call or email ISCM immediately. We can provide information and coordination to help work against this invasive species. If you are in doubt, report it! It is always better safe than sorry when it comes to invasive species. We have experts that are happy to help with plant identifications.

REPORT SIGHTINGS: 204-232-6021 or  
[info@invasivespeciesmanitoba.com](mailto:info@invasivespeciesmanitoba.com)



Photo Credit: Julie Pelc, NCC

Would you like to help spread the word about invasive species?



Visit us on Facebook!

[www.facebook.com/ISCM](http://www.facebook.com/ISCM)

Email us at

[info@invasivespeciesmanitoba.com](mailto:info@invasivespeciesmanitoba.com)  
 for pamphlets, pens, and more!

## We need YOU!

The Invasive species council of Manitoba works to prevent the introduction and reduce the spread of invasive species, both plants and animals, while increasing public awareness and education. This important work helps maintain the ecological stability of Manitoban landscapes.

That is why we need YOU! We have developed a new donation program to keep ISCM operating. Your donation will help fund programs that will help battle the impacts of invasive species across Manitoba

Supporters can donate any amount by cheque (made out to the Invasive Species Council of Manitoba) or by clicking the Donate-Save Manitoba's Landscape button on our website [www.invasivespeciesmanitoba.com](http://www.invasivespeciesmanitoba.com). Donors will be recognized on our website for their generous support of our organization. Any donations will help us continue the battle against invasive species across Manitoba.

### Bronze Sponsor: \$1- \$99

-Bronze sponsors will receive their name listed as a bronze sponsor on our website.

### Silver Sponsor: \$100 – \$499

-Silver sponsors will receive their name listed as a silver sponsor on our website.

### Gold Sponsor: \$500 – \$1999

-Gold sponsors will receive their name listed as a gold sponsor on the front page of our website.

### Platinum Sponsor: \$2000 or more.

-Platinum sponsors will receive recognition on the front page of our website as well as invitations to Early Detection and Rapid Response workshops and the Invasive Species Council of Manitoba's Annual General Meeting.

Any donor that contributes \$1000 or more for more than one consecutive year shall also receive Platinum donor status. All donors will be presented with a letter of thanks and a certificate of appreciation from the Invasive Species Council of Manitoba. The first five donors over \$500 will receive a free copy of the book *Naturescape Manitoba* as a gift of our appreciation. The first 25 donors of \$25 or more will received a special Thank-you package filled with ISCM materials and resources.

THANK YOU FOR ANY CONSIDERATION!

**DONATE**  
Save Manitoba's  
Landscape!



Invasive Species Council of Manitoba

**EDD MapS** **Prairie Region**  
Early Detection & Distribution Mapping System **Manitoba & Saskatchewan**



AGRICULTURE COUNCIL  
OF SASKATCHEWAN INC.

**Canada**

[www.eddmaps.org/prairieregion](http://www.eddmaps.org/prairieregion)



Manitoba Rural Adaptation Council Inc.

### EDDMaps is in action!

The Invasive Species Council of Manitoba along with its partners, are proud to present the Early Detection and Distribution Mapping System, Prairie Region (EDDMapS). In collaboration with the Agriculture Council of Saskatchewan, the Manitoba Rural Adaptation Council and the Government of Canada, this tool has been developed to help with detection and tracking of invasive species in the prairie region of Canada.

EDDMapS can be used to report sightings, view distribution maps, access photos and access information on invasive species. Fast and easy to use, no knowledge of GIS is required. The site features web-based mapping of invasive species distributions to help fill gaps in information and identify the 'leading edge' of ranges. The site facilitates Early Detection and Rapid Response (EDRR) with online data entry forms, email alerts and a network of expert verifiers. EDDMapS fills the need for one database holding both local and national data which can be searched, queried and downloaded in a variety of formats.

This very helpful tool is up and working, visit [www.eddmaps.org/prairieregion](http://www.eddmaps.org/prairieregion) today!

## Can you tell the difference?

By Rachel Cherka, Technician, Invasive Species Council of Manitoba

Dame's Rocket and Garden Phlox, Invasive and Native Phragmites, Giant Hogweed and Cow Parsnip. Sometimes it can be hard to tell the difference between invasive and native plants, especially when they look the same, grow in similar areas and flower at the same time of year. Some have small unnoticeable traits that separate them while others can have more pronounced differences. It is much easier to tell the difference when you can identify characteristics like size, shape or even colour in comparison to another plant; because as is with many things in nature, physical features are all relative. While these characteristics may not always be conclusive, they will hopefully allow you to make a well-educated guess when identifying one of these plants.

Garden Phlox and Dame's Rocket both have pink-purple flowers and yellow centers, so they are easily confused. It is important to be able to tell the difference as Garden Phlox is a native plant and Dame's Rocket is an invasive plant. The best way to tell the difference between the two is by the number of petals each flower has; Garden Phlox will have 5 petals whereas Dame's Rocket will have only 4 petals. An additional characteristic that differs between the two is the leaf arrangement. Dame's Rocket has alternate leaf arrangement and Garden Phlox has opposite leaf arrangement.



Above left: Garden Phlox – photo by: ISCM

Above right: Dame's Rocket – photo by: Rob Routledge



Above left: Invasive Phragmites ligule – photo by: Dr. J. Gilbert

Above right: Native Phragmites ligule – photo by: Dr. J. Gilbert

Another pair of plants that are often confused is the invasive species of Phragmites and the native Phragmites. Telling the difference between these two can be extremely difficult as the differences are very minor. Both species of Phragmites have a thin structure at the junction of the leaf and leaf stalk called a ligule; this can be very hard to see. The invasive species of Phragmites will have a ligule of less than a millimeter and the native Phragmites will have a ligule of more than a millimeter. This can be extremely hard to gauge as on both species the ligules are quite small.

Another way to help determine the species of Phragmites is its stalk colour in mid to late summer time. On the native species, stalks that are exposed



Above top: Giant Hogweed leaves  
– photo by: Leslie J. Mehrhoff

Above bottom: Cow Parsnip leaves  
– photo by: Rob Routledge

to UV rays from the sun will have a dark red colour, but the invasive species will stay mostly green. Also on the stems of the native species there may be black spots, which are caused from a native fungus; this fungus has not yet adapted to the invasive species of Phragmites and so the black dots will not be present.

There have been no confirmed reports of Giant Hogweed in Manitoba but there have been many reports of Cow Parsnip that were thought to be Giant Hogweed. Unlike some plants, there are some very defining features of these plants that can help you tell the difference. Height is usually the best defining feature; Giant hogweed can grow up to 5m tall!!! Cow Parsnip will only reach as tall as 2m, so the height of the plant is a good way to tell them apart. Another feature that differs between the two is their leaf shapes. Giant Hogweed will have very shiny, very coarse, serrated leaves and Cow Parsnip will have less-serrated leaves that are not shiny. The last big feature that separates the two is that Giant Hogweed blooms in mid-August with flowers approximately 1.5m in diameter; Cow Parsnip however will bloom in July and its flowers only grow to be approximately 20cm in diameter. Although only Giant Hogweed is invasive, both plants have photo-toxins which can severely burn skin when exposed to light, so be extremely careful and take all necessary precautions when handling either plant.

If you need any assistance in telling the difference between any of these plants or identifying any invasive species contact ISCM at: [info@invasivespeciesmanitobe.com](mailto:info@invasivespeciesmanitobe.com) or at 204-232-6021.

## Emerald Ash Borer

By: Jessica Wood, Technician, Invasive Species Council of Manitoba

Native to eastern Asia, the Emerald Ash Borer (EAB) was first discovered in North America in the Detroit area in 2002. It likely came to North America on contaminated packing materials in the 1990s. The emerald ash borer originally discovered in Windsor Ontario can now be found in throughout out Southern Ontario and Quebec (<http://www.inspection.gc.ca/plants/plant-protection/insects/emerald-ash-borer/areas-regulated/eng>). This insect has caused a disseminating impact to the urban and natural forests. The effected communities have had to paid millions in effort to control this pest.

This insect is particularly difficult to control because the insect does most of its damage in the larval stage where it is under the bark. By the time symptoms present themselves, it is often too late for the tree. All ash species are at risk.

Emerald Ash Borer Day was held back in October 2012 to provide local government representatives and urban forestry professionals the opportunity to hear from researchers and from EAB affected municipalities. Through presentations, awareness was created about the history and current situation in Canada. This included the “slow the spread” strategy, EAB monitoring and detections, economic impacts and community perspective. With over 150 attendees over two days much knowledge was shared on this invasive pest and by staying educated there is a better chance of Early Detection when this pest moves west to Manitoba. The province of Manitoba has intensified its monitoring for EAB and collaborates with the Canadian Food Inspection Agency in the placement of pheromone traps.

What can you do? Do not move firewood! Buy it locally and leave left over wood where you bought it. As always we need you to keep an eye out! Any trees showing symptoms of insect infestation should be reported immediately. Ash trees being attacked by EAB show several symptoms; these include D-shaped exit holes, crown die-back, S-shaped galleries and epicormic shoots. EAB is a member of the Buprestidae family, it has a characteristic elongated shape and bright coloring. Typical EAB specimens are bright, metallic, emerald green color overall with variable amounts of brassy or coppery tones. The dorsal side of the beetles abdomen is bright coppery-red color and is the only member of the Agrilus genus found in North America that has this feature.

If you suspect you have found an EAB specimen you can contact ISCM at [www.invasivespeciesmanitoba.com](http://www.invasivespeciesmanitoba.com) or call the Provincial Tree Line at 204-945-7866.



EAB eggs. Photo credit: David Cappaert



EAB larvae Photo credit: David Cappaert



EAB adult. Photo credit: David Cappaert



EAB, size comparison. Photo credit: Manitoba Conservation and Water Stewardship

## Be careful what you buy!!!

When acquiring new additions for your garden be aware when:

- Buying plants or seed over the internet. Plants that are considered native in one area can be invasive in another.
- Buying plants advertised as “Exotic”. Ornamental plants imported and sold under this category have become some of our worst invaders.
- Shopping at local nurseries, greenhouses, or garden centers. Do not purchase the plant if the scientific name or origin of a plant cannot be supplied.
- Sowing wildflower mixtures. Many wildflower mixes contain seeds of invasive plants. If a list of species (including scientific name) is not included on the package label then do not buy or plant the wildflower mix.



## Volunteer Invasive Pulls

By Rachel Cherka, Technician, Invasive Species Council of Manitoba

This year ISCM has once again partnered with Friends of Birds Hill Park in hosting two invasive species pulls. The first was on June 18<sup>th</sup> to pull a patch Leafy Spurge at Birds Hill Park and the second was on July 31<sup>st</sup> to pull a large patch of Spotted Knapweed.

The Leafy Spurge pull went extremely well, as we arrived and found the patch to be severely decreased from previous years of pulling and other control measures. The volunteers who came out to help did a fabulous job and we are optimistic that next year we will see even less Leafy Spurge in the area.

The Spotted Knapweed pull also went very well as the volunteers managed to pick the whole 30m by 75m patch! The patch was exceptionally dense and the volunteers really worked hard to get it all removed.

On behalf of both ISCM and the Friends of Birds Hill Park we would like to thank all the volunteers that came out to these two events, your help is sincerely appreciated!



Volunteers at the Leafy Spurge Pull, June 18<sup>th</sup>, 2013  
Photo credit: Cary Hamel



Volunteers at the Spotted Knapweed Pull, July 31<sup>st</sup>, 2013  
Photo credit: ISCM

## Upcoming Invasive Species Events

### Sept 2013

23-25 BIT's 3rd Annual World Congress of Agriculture - 2013. This major international event will be held in Hangzhou , China. Aiming to be one of the world's leading conferences in the field of Agricultural Biotechnology, this event brings together people working in the area of agriculture to discuss the latest scientific advances in agriculture and future directions of the associated technologies. Visit their site at [www.bitconferences.com/wca2013/](http://www.bitconferences.com/wca2013/)

### October 2013

21-22 Ontario Invasive Plant Council is holding its 7th Annual General Meeting and Invasive Plant Symposium at the YMCA Geneva Park near Orillia, Ontario. A fantastic line-up of speakers, a networking event and several tours are planned this year. Visit [www.ontarioinvasiveplants.ca](http://www.ontarioinvasiveplants.ca) for more information!

28-31 The North American Invasive Species Management Association in partnership with the Wyoming Weed and Pest Council are hosting a combined annual conference this year in beautiful Jackson Hole, Wyoming. Invasive Species—a Grand View will feature: Healthy Habitats Coalition, Centre for Invasive Species Management and Invasive Species Council of Metro Vancouver. Visit [www.naisma.org](http://www.naisma.org) for more information.

### January 2014

14-16 The 31st Annual Red River Basin and Water International Summit Conference is set to take place at the Ramada Plaza Suites and Convention Centre in Fargo, North Dakota. The Pulse of the Basin: Getting to the Heart of the Issues, will focus on identifying basin-wide priorities, celebrating accomplishments and providing educational content and networking opportunities. Join them this year, visit [www.redriverbasincommission.org](http://www.redriverbasincommission.org) for more information and to register.

### February 2014

3-6 A joint meeting between CWSS-SCM and the Weed Science Society of America (WSSA) will be held in Vancouver, BC, at the Hyatt. Abstract submission opens: September 1, 2013; Title and author information due: October 2, 2013; Abstract text due: January 15, 2014. Visit [www.weedscience.ca](http://www.weedscience.ca) for more information.

14 MEIA's Remediation and Renewal Conference is taking place at the Victoria Inn, 1818 Wellington Ave, Winnipeg, MB. Join environmental professionals from all over Manitoba to share ideas and gain insight on remediation and energy trends that are shaping the environmental sector. Visit <https://meia.mb.ca/eventinfo.php?id=3> to register.

## Check This Out!

<http://www.greatgardenalternatives.com/>

Great Garden Alternatives has many suggestions for plants to grow instead of ornamental, exotic and possibly invasive plants. Check it out today!

## Websites

EDDMapS: <http://eddmaps.org/prairieregion/>

Invasive Species Council of Manitoba: <http://www.invasivespeciesmanitoba.com>

Leafy Spurge Stakeholders Group: <http://leafyspurge.ca/>

Manitoba Purple Loosestrife Project: <http://www.purpleloosestrife.org/>

**Who we are...**

*The Invasive Species Council of Manitoba (ISCM) is a non-profit organization providing a centralized and coordinated province-wide leadership body adopting a collaborative approach to invasive species in Manitoba.*

**Vision...**

*Maintain a healthy, bio-diverse landscape through the prevention, early detection, and education and awareness of invasive alien species management practices in order to eradicate or limit further spread.*

**ISCM Executive Board 2013**

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Riding Mountain Biosphere Reserve

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- Agriculture Sustainability Initiative, Manitoba Agriculture, Food and Rural Initiatives
- A Rocha
- Assiniboine Watershed Network
- City of Winnipeg
- Ducks Unlimited Canada
- Dow Agrosiences Canada
- Fisheries Enhancement Fund
- Friends of Birds Hill Park
- Government of Canada
- Leafy Spurge Stakeholders Group
- Manitoba Agriculture, Food and Rural Initiatives (MAFRI)
- Manitoba Beef Producers
- Manitoba Conservation and Water Stewardship
- Manitoba Purple Loosestrife Project
- Manitoba Rural Adaptation Council
- Manitoba Urban Green Team, Province of Manitoba
- Manitoba Weed Supervisors Association
- Nature Conservancy of Canada, Manitoba Region
- North American Weed Management Association (NAWMA)
- Pembina Valley Conservation District
- Riding Mountain Biosphere Reserve
- Riding Mountain National Park
- Saskatchewan Invasive Species Council (SIPC)
- Service Canada Summer Jobs, Government of Canada
- Stanley Soil Management
- University of Manitoba

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- Glennis Lewis
- Katharine Schulz
- Kimberley Linton



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# STOP THE SPREAD

## Spotted Knapweed

*Centaurea maculosa*

Spotted Knapweed can act as a tumble weed and spread its seeds by “tumbling” around in the wind

### UNWANTED PLANTS

#### Origin

A biennial or short-lived perennial native to Eastern Europe. It was accidentally introduced through contaminated crop seed in the 1900's.

#### Status

Found throughout the north western United States including North Dakota. It is new to Manitoba and has been found in Birds Hill Provincial Park area, south of Beausejour and in the RM of Piney.

#### Impacts

Spotted Knapweed has few natural enemies and is only grazed on when other vegetation is unavailable. The roots excrete a toxin that prevents the growth of native plant species.

#### Where to Look

Primarily found by highways, waterways, and railroad tracks, Spotted Knapweed prefers well-drained soil and is intolerant of constant moisture and dense shade.

#### Control

Cutting or pulling before flowering can be effective on small infestations to prevent seed production, but will require several years' effort to eradicate. Remove as much of the root system as possible to prevent re-sprouting. Bare skin contact with Knapweed can cause irritation, so wear gloves.

Twelve biocontrol agents have been imported to North America and many of them have become very widespread throughout the northwestern US and southern BC. They have caused dramatic reductions in plant size, and therefore seed production in some areas.



#### Look For:

- ◊ Grows to be 1.5 m tall. May have multiple stems
- ◊ Alternate leaves pinnately divided (feather-like), and can be slightly hairy.
- ◊ Flowers pink to purple in colour with bracts that have black tips giving spotted appearance blooms from early July through August

#### Prevent the Spread in Manitoba

Spotted Knapweed spreads via hay or vehicle undercarriages; caution should be used when using hay from road ditches, and when purchasing hay from known infested areas in neighbouring states and provinces.

**Report a Sighting:**



**Invasive Species Council of Manitoba**

5006 Roblin Boulevard Winnipeg, Manitoba, R3R 0G7

ph: (204) 232-6021 fax: (204) 986-7236

info@invasivespeciesmanitoba.com

www.invasivespeciesmanitoba.com

**EDD MapS** Prairie Region

Get Down & Dirty on Mapping System: Manitoba & Saskatchewan

<http://www.eddmaps.org/prairieregion/>

Photo Credits:

[www.bugwood.org](http://www.bugwood.org)