



Volume 5
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Unwanted Invaders

In This Issue:	
Houndstongue in Manitoba	1
Riding Mountain Biosphere Reserve & ISCM	2
EDRR & Bio-control	2
Salt Cedar in Saskatchewan	3
Zombie Ants	3
2012 NAWMA Conferene	4
Weeds Across Borders	4
Up Coming Events	5
Happy Anniversary ISCM	5
Who are We	6
Hounds tongue Fact Sheet	7

Our Website:
www.invasivespeciesmanitoba.com has undergone some changes and updates. For starters our newsletters are now available on the site, as well we added our 2010 Rural Municipality Weed Distribution Maps. Our list of aquatic and terrestrial species have been categorized based on priority by the EDRR committee.

2012 Calendars are Still available, contact ISCM to get yours today. info@invasivespeciesmanitoba.com

Ron Moss, chair for the Leafy Spurge Stakeholders Group is stepping down from his position as he is retiring from Agri-Environmental Service Branch. A new chair has yet to be decided. ISCM would like to wish Ron the best of luck with his new endeavors.

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Houndstongue in Manitoba

By Amanda Dumont, Project Coordinator, ISCM

Since Haley Catton's presentation on houndstongue at ISCM's EDRR workshop in November there has been a report of houndstongue in the Dauphin area. This report is good news and bad news; good because we now know that this plant is in Manitoba, but the bad news is that this is a very bad plant to have in Manitoba.

Houndstongue is a plant that causes serious concern as it possess many negative qualities. For starters houndstongue is extremely toxic. Animals will not graze on fresh material but they accidentally consume the plant if it was mixed in with hay. Fatal liver disease in horses has occurred following 2 weeks of feeding on hay with as little as 6% of houndstongue.

Seeds are called nutlets and are covered in barbs which allow them to cling easily to the fur, hair and clothing, so where ever the seed carrier goes so does the weed. This method of dispersal allows the plant to colonize in uninfected areas. The other problem that these burrs posses is that they can dramatically decrease the market value of live stock that are covered in burrs.

The upside to this plant is that it is a poor competitor and requires already disturbed sites for colonization. Such sites include over grazed pastures, roadsides, trails and forest areas where

Cow covered in houndstongue burrs
 Photo Provided by Haley Catton
 Photo taken by: Dr. Rose De Clerck-Floate
 on BC rangeland in 2008



Developing an Invasive Species Network for Riding Mountain Biosphere Reserve

Brad Kennedy rmb.is.network@gmail.com , for more information visit rmb.ca

The Riding Mountain Biosphere Reserve (RMBR) has initiated a new project to engage key stakeholders in a coordinated approach to long-term invasive species management.

The RMBR, which includes Riding Mountain National Park at its core and 15 rural municipalities surrounding the park, is the ideal location to establish a new Invasive Species (IS) network for a variety of reasons. Due to many similarities in the RMBR landscape, with respect to both the types of agriculture and

natural vegetation communities, the invasion risk for many species will be similar throughout the region. At present, most of the region is without Weed Supervisors and thus little monitoring and weed management currently takes place on public lands in the region. If monitoring and management efforts are intensified in the near future, many IS threats could be prevented or contained before they cause major ecological and economic consequences.

The goal of this project is to

develop a network of IS stakeholders to facilitate IS prevention, early detection, information-sharing, data management, rapid response and integrated pest control actions in the RMBR. We will be establishing contact with stakeholders in early 2012 and through short interviews we will assess the level of interest in developing an IS Network in the region and determine which IS are of greatest concern.

We also plan to host workshops related to invasive species identification and management

later in the year. Anybody who would like more information on the project, or wishing to participate in our stakeholder survey please visit rmb.ca, or contact us by e-mail at rmb.is.network@gmail.com. For more information on invasive species in Manitoba please visit www.invasivespeciesmanitoba.com

Riding Mountain Biosphere Reserve website: <http://rmb.ca/>

EDRR and Bio-control

By Amanda Dumont, Project Coordinator, ISCM

The Early Detection and Rapid Response workshop held November 30 was a well received event. Both featured speakers had topics that included the use of bio-control. Haley Catton, a former ISCM coordinator presented her PhD work on hounds tongue, while Dr. Alec McClay discussed the various insects used for bio-control on invasive plants and his research on bio-control use on common tansy.

Although bio-control is an eco-friendly way to control weeds, it should be made clear that that's all it does is control—not eradicate.

Invasive species tend to be successful because they lack their natural enemies but one can't just bring over and release various control agents and hope for the best. Decades of research is conducted just to find the right pathogen for a specific species, i.e. one that will only affect the species of concern and none other. This research then has to be presented to the government for approval

Haley Catton's research involves a root mining weevil that is being used to control hounds tongue in BC. This weevil however, will on occasion eat other native plants that are in the same family; the forget-me-nots. This has raised concerns across the boarder in Washington state where an endangered forget-me-not species exists and could be further

threatened by the release of these insects. This has resulted in a ban on the import of the weevil across the boarder, unfortunately plants and animals know no boundaries and will cross over on their own.

Part of Haley's research is to determine the effects, if any, the weevils have on native plants. Her preliminary findings show that minimal damage is done to the native species and the insects do seem to prefer hounds tongue, who have a more fleshy root than their native counter parts.

Other insects that have been released for biocontrol include but not limited to; various flea beetles for leafy spurge, weevils for purple loosestrife and gall forming midges on scentless chamomile.



Houndstounge weevil; *Mogulones crucifer*
Photo taken from: <http://www.galerie-insecte.org/>

Salt Cedar in Saskatchewan

By Shannon Garchinski; A.Ag, Agrologist, Swift Current Creek Watershed Stewards

Salt cedar is an invasive plant that has taken over large areas of the United States including Montana and North Dakota. In 2010 and 2011 it was found in 3 different locations in southern Saskatchewan.

The initial location where salt cedar has been found is south of Swift Current, SK. Flyers about salt cedar were produced and distributed by the Swift Current Creek Watershed Stewards (SCCWS). A landowner who received the flyer thought that he may have seen the plant on his property growing next to a dugout which had been recently disturbed. It was positively identified by the University of Saskatchewan herbarium and was removed by the SCCWS. The area is currently being monitored by the landowner, SCCWS and the Saskatchewan Invasive Species Council.

The other two sites are in gravel pits owned by the Ministry of Highways and Infrastructure (MHI). The MHI findings were a result of a rare plant survey being conducted at the sites. One gravel pit is near the town of Findlater, SK where a total of six plants have been found. The other gravel pit is north of Cadillac, SK where 44 plants have been discovered. MHI has shut down the gravel pits from further development and all plants have been destroyed. Both sites will continue to be surveyed until they are salt cedar free for five years. It is believed that the plants/seeds are coming up from the U.S. on contaminated equipment which traveled into these areas.



Salt Cedar; Photo from Alberta Invasive Plant Council

<http://www.invasiveplants.ab.ca>

ZOMBIE ANTS: COMING TO A CYPRESS CATTLE HERD NEAR YOU

There's a new cattle parasite that lurks in Cypress Hills Park, SK. with an agenda straight out of a science fiction movie.

The lancet liver fluke lives in the bile ducts of an animal's liver where it spends the rest of its life producing eggs. The eggs are defecated out in feces whereupon snails come and ingest them.

Inside the snail the parasite reproduces, the snail excretes these tiny larvae in what's called a slime ball full of parasites.

Ants eat the slime balls for moisture and bring it back to the ant's nest, exposing the rest of the colony. Between 50 and 100 parasites can infect just one ant. Most parasites will go to the ant's abdomen, but one will go to the a particular part of the brain that controls their behaviour including the action of the mandibles .

At dawn, the infected ant comes out of the nest with the rest of its colony, but instead of foraging and doing what an ant does, it goes up to the top of the vegetation, usually it's a flower head, and attaches itself with its mandibles, for a period of three or four hours depending on the temperature.

The "zombie ant" stays attached to make itself more accessible to be eaten by the next host.

Temperatures above 18 degrees would be lethal for the host and the parasite, so when it gets too warm the ant automatically detaches and goes back to the nest.

They're zombies in the sense that they're doing something very different than an uninfected ant, and they do this for the rest of their life, until they're eaten, or they die for some other reason. The rest of the colony is oblivious to what's going on.

Once the zombie ant is eaten, the parasite will make its way to the liver of the animal to continue the cycle.

The requirements for the transmission of the parasite are rigid and has a complex life cycle that involves a snail, an ant, and something that eats ants, so all three hosts have to be together in one location for the life cycle to work

Cypress Hills, which appears to be the only place in Canada where the fluke is found, has the perfect conditions for that recipe. Cattle, deer and elk are all grazing within a fairly narrow area, and those are

probably ideal conditions for transmission, but these conditions do occur elsewhere, so it could be just a matter of time before it moves out of Cypress Hills and there's lots of areas in Alberta where it's almost certainly going to show up.

Luckily humans are safe from becoming zombified by a fluke, as we are too big to control. If we ate an infected ant, the parasite would go to our liver and the parasite may only live for about two years.

The next step in researching the fluke phenomenon is figuring out exactly how the parasite is able to alter the behaviour of ants, particularly how the fluke knows the location of the nerves that affect mandible clamping.

More importantly, the effects of a fluke infection on cattle needs to be known. In Cypress Hills where it's likely 90 per cent of cattle are infected, infection is rarely fatal in cattle, but heavily-infected animals can become anemic, emaciated and predisposed to other infections. Economic losses come in the form of liver condemnations at packing plants, but usually the rest of the meat is fine.

2012 NAWMA Conference

On behalf of the Board of Directors of the National Roadside Management Association (NRVMA) and the North American Weed Management Association (NAWMA), we proudly announce a combined conference in Branson, Missouri, at the Hilton Branson Convention Center on Tuesday, October 30, 2012 through Thursday, November 1, 2012. The Hilton Branson Convention Center is connected to the Branson Convention Center in the heart of historic downtown Branson. This location is adjacent to the vibrant Branson Landing, a waterfront shopping, dining, and entertainment district featuring over 100 specialty stores. The hotel rate at the Hilton Branson Convention Center will be \$120.00 a day. This rate will be available three days prior to the conference and three days after the conference. The Hilton has two properties available for conference attendees, the Hilton Branson Convention Center and the Hilton Promenade at Branson Landing. The Hilton Promenade at Branson Landing offers one and two-bedroom Branson condos that include a fully equipped kitchen. The con-

ference will start on Tuesday, October 30, 2012 with a weed tour and later that evening a "Get Acquainted" reception that will recognize the exhibitors and sponsors that have help make this joint conference a success. For those attendees who would like to participate in 18 holes of "turf management time" there be will an opportunity during the afternoon of Monday, October 29, 2012 more information on this will be available in the near future.

When you register, please do so as usual with the Association you are affiliated with, or if you are not a member of either Association please contact John Reynolds, Executive Director of NRVMA.

NRVMA/NAWMA is looking forward to seeing you in Branson in October.

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Save the Date

WEEDS ACROSS BORDERS
Meeting the Challenges of the Future

HOTEL GRAND OASIS RESORT
CANCUN, MEXICO
APRIL 24-27, 2012



MALEZAS SIN FRONTERAS
Enfrentando los Retos del Futuro

HOTEL GRAND OASIS SENS
CANCÚN, MÉXICO
24-27 AVRIL, 2012

Weeds Across Borders (WAB), a biennial trilateral conference covering the interests of professionals and organizations involved in North American weed management and regulation. Composed of an affiliation of organizations from Canada, Mexico, and the United States with a common interest in sharing information and promoting weed management throughout North America, the conference has rotated between the three countries since its inception in 2002.

Upcoming Invasive Species Events

March 2012

- 22 4th Annual Red River Basin Commission Northern Chapter Fish Dinner at Sunova Centre in west St. Paul (48 Holland rd.) Tickets are \$40 contact Sara Thrift to reserve your tickets sara@redriverbasincommission.org
- 28 Friends of Birds Hill Park Present: In Natures Garden a presentation on native orchids and butterflies in Birds Hill Park and surrounding areas. 7:00 Multipurpose Room, Red River Community Club, 293 Murray Ave. Register by email: info@friendsofbirdhillpark.ca or call Shannon 783-449.
- 31 Gardening Saturday, Canadian Mennonite University

April 2012

- 16-19 Noxious Weed Short Course, Sylvan Dale Guest Ranch, Loveland Colorado For further information visit <http://www.wsweedscience.org/shortcourse/shortcourse.asp>
- 19 Alberta Invasive Plant Council Annual Conference & AGM, Red Deer AB, Register online www.invasiveplants.ab.ca
- 24-27 Weeds Across Borders Conference—Cancun, Mexico

August 2012

- 6-10 2012 North American Prairie Conference, University of Manitoba Campus, Winnipeg, MB. www.napc2012.org
- 16-18 Invertebrates associated with invasive alien organisms More information: <http://www.rpd-conference.org>
- 20-23 Invasive organisms and globalization More information: <http://www.rpd-conference.org>

October 2012

- 30-Nov 1 20th Annual NAWMA Conference, Branson, Missouri

HAPPY ANNIVERSERY ICSM!



By Amanda Dumont, Project Coordinator, ICSM

December 6, 2011 ICSM celebrated its 5th Anniversary, a feat that would not be possible without its various sponsors and stakeholders. These past five years have not been without its challenges, with funding always being an issue and concern. Despite this ICSM continues to push forward, moving from public awareness to a more responsive approach on invasive species management. New relationships and partners are still being formed and many projects are still ongoing or just starting up.

Cheers to ICSM for a successful past five years and here's to another 5 more.

Websites

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

Prips (Mapping): <http://prips.usask.ca/>

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* 2011**Cheryl Heming**

ISCM Executive Director

Cory Lindgren

CFIA's Invasive Plant Programme

Jane Thornton, Vice-Chair

MAFRI

Lisette Ross, Secretary-Treasurer

Ducks Unlimited Canada

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Agri-Environment Services Branch

Bill Gardiner

MAFRI

Linda Christianson

Manitoba Conservation, Forestry

Cameron Meuckon

Manitoba Conservation

*Other Executive members to be confirmed

The ISCM would like to thank our funding sources and partners, without whom we would not exist:

- Agriculture & Agri-Food Canada, Agri-Environment Services Branch (formerly Prairie Farm Rehabilitation Administration)
- 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
- IASPP Fund—Government of Canada
- Integrated Vegetation and Management Association Manitoba/ Saskatchewan
- Leafy Spurge Stakeholders Group
- Manitoba Agriculture, Food and Rural Initiatives (MAFRI)
- Manitoba Beef Producers
- Manitoba Conservation
- Manitoba Purple Loosestrife Project
- Manitoba Urban Green Team, Province of Manitoba
- Manitoba Water Stewardship
- 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
- T & T Seeds
- University of Manitoba



For more information Contact:

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**STOP
THE
SPREAD**



FATAL LIVER DISEASE IN HORSES HAS OCCURRED FOLLOWING TWO WEEKS OF FEEDING HAY WITH AS LITTLE AS 6% HOUNDSTONGUE

UNWANTED PLANTS

Origin

A biennial native to Eurasia, it was accidentally introduced through contaminated crop seed in the 1900's.

Status

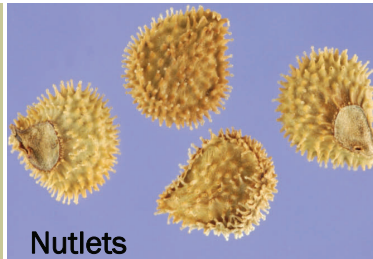
Found throughout the north western United States, B.C, Alberta and recently 2 patches in the Riding Mountain area in Manitoba have been found.

Impacts

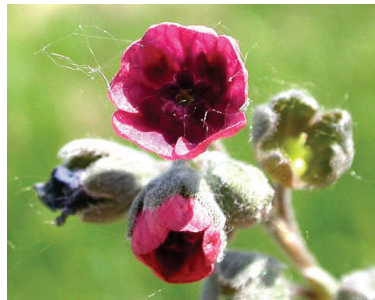
Houndstongue contains poisonous alkaloids. The plant is generally avoided by grazers, but if found in hay it can be consumed and can cause fatal liver disease. Seeds have burrs that stick to livestock causing them to decrease in market value. Burrs can also be a problem to hikers, hunters and their pets.

Where to Look

A weak competitor, houndstongue requires disturbance to become established. Sites include: roadsides, trails pastures where there is overgrazing and in woodlands following soil disturbance.



Nutlets



Leaves

LOOK FOR:

**GROWS TO BE 1.5 M TALL.
MAY HAVE MULTIPLE STEMS**

**LEAVES ARE OBLONG AND
VERY HAIRY—RESEMBLES A
HOUNDS' TONGUE**

**FLOWERS IN MID JUNE; RED
TO BURGUNDY IN COLOUR,
PRODUCES 3-4 SEEDS**

PREVENT THE SPREAD IN MANITOBA

Seeds are heavily barbed and cling readily to clothing and hair/fur. Wherever the seed carrier goes, so does the weed, therefore preventing flowering and removing seed is the best way to prevent the spread.

Report a Sighting!

Canada

Funding for this project was provided in part by the Invasive Alien Species Partnership Program, a Government of Canada initiative.

7



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