



Volume 4
Issue 1
Spring 2010

Unwanted Invaders

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New! ISCM's "What Not to Plant List" for Gardeners



Available for
download at:
www.invasivespeciesmanitoba.com

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Volunteer Monitoring Targets for Manitoba

The early detection rapid response (EDRR) committee of the Invasive Species Council of Manitoba has been moving forward on creating Risk Assessments and a 'Watch list' of the species of concern for invading Manitoba. Through regular meetings over the past year, EDRR members have formed a list of volunteer monitoring target species:

CATEGORY 1 – Invaders that are not yet present in Manitoba, but for which there is a province-wide alert for invading; and
CATEGORY 2 – Non-established invaders in Manitoba. See Category list on right.

What can you do?

Volunteer monitoring and public reporting is key to the success of early detection systems. Please report Invasive Species, especially Category 1 and 2, to www.invasivespeciesmanitoba.com or (204) 232-6021. Do your research and do not purchase known invasive species- Himalayan balsam and Salt cedar are still sold locally under different common names. Don't release or dump fish, plants earthworms, bait buckets, etc. Follow the *Boater's Checklist*. Host a weed removal event with the ISCM. Visit our website listed above for more information on how you can help.

Right: Round Goby, a Category 1 invasive fish.
Photo credit: Eric Engbretson, US Fish and Wildlife Service, Bugwood.org



Left: Button-like flowers of Common tansy, a Category 2 invasive plant in Manitoba.
Photo credit: Jan Samanek, State Phytosanitary Administration, Bugwood.org

CATEGORY 1

- Salt cedar
- Curly leaf pondweed
- Eurasian watermilfoil
- European frog-bit
- Hydrilla
- Yellow starthistle
- Patterson's curse
- Jointed goatgrass
- Kudzu
- Mile-a-minute vine
- Common crupina
- Purple nutsedge
- Woolly cupgrass
- Russian knapweed
- Yellow flag iris
- Diffuse knapweed
- Spotted knapweed
- Zebra & Quagga mussels
- Spiny waterflea
- Didymo or Rocksnot
- Fish spp. – Mosquito fish, Round goby, Asian carp
- Emerald ash borer

CATEGORY 2

- Japanese brome grass
- Downy brome grass
- Field scabious
- Common tansy
- Dalmation toadflax
- Yellow toadflax
- European buckthorn
- Flowering rush
- Red bartsia
- Scentless chamomile
- St John's wort
- Himalayan balsam
- Blueweed
- Bouncing bet
- Purple loosestrife
- Leafy spurge
- Oxeye daisy
- Gypsy moth
- Black algae
- Rusty crayfish

Be On the Lookout for Aquatic Invasive Species This Summer in Manitoba

By: **Sandi Faber Routley, ISCM Invasive Species Technician**

As another cottage season rolls around in Manitoba, it is a good time for the public to be reminded of aquatic invasive species (AIS) threatening our local waterways- wetlands, creeks, rivers and lakes.



Rusty Crayfish. Photo credit: Jeff Gunderson, Minnesota Sea Grant.

A number of aquatic invaders have already been reported over the past few years (e.g. Rusty crayfish), while others are knocking on Manitoba's doorstep.

Invasive species are non-native plants, animals and pathogens which were accidentally or intentionally introduced into habitats outside of their native range. Their introduction and spread has caused harmful effects on the environment, society, economy, and even human health. Invasive species are also listed as a major cause of biodiversity loss, and alteration and degradation of habitat for native species. The United Nations has proclaimed 2010 as the International Year of Biodiversity, thus it is important more than ever to recognize the serious threat which aquatic invasive species pose to Manitoba's landscape.

Aquatic invasive species are a problem because they aggressively grow and reproduce in and around water bodies. Since these species are living outside their native range, they have no natural enemies (e.g. predators, competition, parasites or disease) to keep their population in check. They can clog boat engines and cottage water intake lines, choke lakes and waterways, restrict use by boaters and swimmers, reduce native

aquatic species (zooplankton, waterfowl, clams, etc), including sport fish, foul fishing gear, degrade the natural beauty of our lakes and waterways, and reduce waterfront property value. They can compete with native species for food or habitat, alter the natural habitat, prey upon native species, and act as vectors for new diseases or parasites that could spread to native species. Any of these effects could have further widespread, detrimental impacts on native aquatic species and communities.

Aquatic invasive species arrived in North America through shipping (primarily in the Great Lakes region through discharge of ballast water), recreational boating, aquarium and water garden trade, release of live bait, live food fish trade, aquaculture, and man-made canals. Once here, it is difficult to control or eradicate these species. They will spread by hitching a ride on a trailered watercraft, and gear, and in bait buckets. Examples of non-native aquatic species which have already invaded parts of Manitoba's waters include: Rusty crayfish, Common carp, Rainbow smelt, and Asian tapeworm.etc. Species of concern in proximity to Manitoba include Zebra mussel, Curly leaf pondweed, Round goby, and Spiny waterflea.

To protect our waters and to prevent further spread of aquatic invasive species in Manitoba take the following precautions:

CLEAN and inspect watercraft, trailer and gear. **Remove** all plants, animals and mud. **Rinse** using high pressure, hot tap water [50°C (120°F)].

DRAIN all water from watercraft including the motor, livewell, bilge and bait buckets.

DRY watercraft for at least 5 days in the



Curly leaf pondweed plant. Photo credit: Chris Evans, River to River CWMA, Bugwood.org

hot sun (if rinsing is not available).

DISPOSE of unwanted live bait and worms in the trash, and dump bait bucket water on land. **Never release** aquarium pets, plants or water into our lakes, rivers or wetlands.

Report sightings of aquatic invasive species calling the **Aquatic Invasive Species Hotline (Toll Free in Manitoba): 1 87-STOP AIS-0 or 1 (877) 867-2470**

For more information, visit: **www.manitoba/StopAIS**

The Invasive Species Council of Manitoba, a non-profit organization formed in 2006, is committed to promoting education and awareness and preventing the spread of aquatic invasive species in Manitoba. For more information on invasive plants and animals, or to sign up for our free quarterly newsletter "Unwanted Invaders", contact the **Invasive Species Council of Manitoba** at (204) 232-6021, info@invasivespeciesmanitoba.com or visit www.invasivespeciesmanitoba.com.

(New Zebra mussel factsheet attached).

HELP PROTECT MANITOBA'S TREES

Do Not Move Firewood

With your help, we can protect Manitoba's beautiful trees and forests from harmful exotic pests like the Emerald Ash Borer and the Asian Long-horned beetle.

Do **not** transport firewood into Manitoba. Buy it locally. If you're visiting the province and have firewood with you, please dispose of it in the bright orange bins located along the main highways entering Manitoba. And also, remember that it is illegal to transport any firewood into or out of Manitoba across the Canada-U.S. border.

To learn more, please call the Tree Line at 204-945-7866, or the Manitoba Conservation toll free number at 1-800-214-6497, or visit: manitoba.ca/conservation/forestry/alerts/alerts.html

Manitoba 

NATIONAL NEWS

GIANT HOGWEED: Big, Scary Alien on the Move

Sent by: Invasive Plant Council of BC
With *International Day for Biological Diversity* on May 22nd, the time is right to start focusing on the early detection of invasive alien species—the second biggest threat to biodiversity worldwide. The National Invasive Species Working Group is aiming to increase the number of trained volunteer “spotters” across Canada to help detect new invaders.

The initial focus for this nation-wide initiative is giant hogweed (*Heracleum mantegazzianum*), a very aggressive invasive plant with concern to human health and safety. Due to its intentional introduction in the horticulture industry, limited current distribution, potential for spread, and toxicity, members of the working group have agreed that this plant is a key national concern.

“Because of giant hogweed’s ability to grow in moist areas such as British Columbia’s many lakes, rivers, wetlands, valley bottoms, and coastal regions, and its toxicity to humans, domestics and wildlife, its spread is a major concern for

the Invasive Plant Council of BC” said IPCBC chair, Kristy Palmantier.

Native to Europe and Asia, giant hogweed was introduced to North America as an ornamental plant in the early 1900s. It is now present in BC, Ontario, Quebec, Nova Scotia, and Newfoundland, as well as a number of US States.

Its larger-than-life size is not the only reason to fear this plant. A single giant hogweed plant can produce 100,000 winged seeds, crowding out native plants and dominating moist areas. A rare type of invasive plant that threatens human health, giant hogweed produces a toxic sap that causes sensitivity to UV radiation, leading to skin blistering and severe burns. As a result, legal workplace regulations in BC and Ontario have unique implications for working in infested areas, and there are numerous cases of people being hospitalized due to injuries caused by this ‘exotic’ looking plant.

Borrowing a page from the Australian “Weed Spotters” Program, the National Invasive Species Working Group believes “the more eyes we’ve got, the more invasive species we can spot, and potentially stop!” BC has a growing Spotters Network, coordinated by the Invasive Plant Council of BC and supported by regional invasive plant councils and committees across the province.

“We ask that gardeners take the time to learn what garden and horticulture plants are introduced and invasive to BC and become our ‘spotters’ on the ground. Work with your neighbours to keep invasive plants out of your neighbourhoods and communities,” suggests Palmantier.

Individuals can report an invasive species in BC by calling toll free 1-888-WEEDSBC.



Left: Illustrating the height of Giant Hogweed. Photo credit: Fraser Valley Regional District.

Visit www.invasiveplantcouncilbc.ca to learn how to identify giant hogweed and to get involved with an invasive plant committee near you.

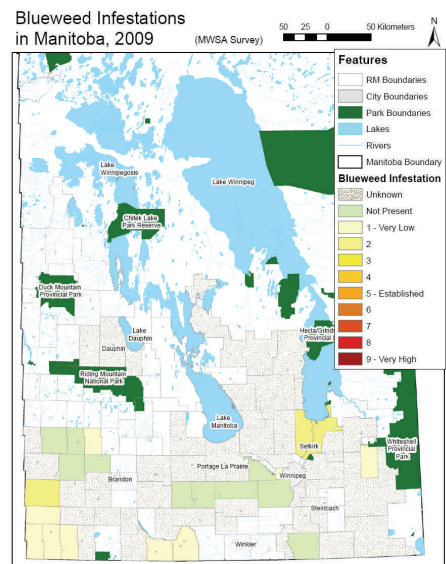
NEW! INVASIVE SPECIES COUNCIL OF MANITOBA



Check out the *new!* weed maps on our website. ISCM hopes to expand these maps for all target invasive plants based on volunteer monitoring.

For more information visit:

www.invasivespeciesmanitoba.com or phone (204) 232-6021; email: info@invasivespeciesmanitoba.com.



Example of an ISCM Weed Map for Manitoba.

Invasive Plant Added to Herbicide Label

February 26, 2010

For the first time, herbicide applicators will this spring see an Invasive Plant Management section added to a herbicide label in Canada. The Pest Management Regulatory Agency (PMRA) approved an application last fall to add an Invasive Plant Management section to the Milestone™ label.

What made the application unique was that it was based on US data, since very little Canadian generated data was available. "Many of the invasive plants listed in the new section do not exist in Canada right now," explains Barry Gibbs, Product Registration Manager with Dow AgroSciences. Yet having a tool that provides control will be important in the early detection and rapid response required if or, more likely when, these invasive plants cross the 49th parallel.

Milestone™ is an important tool that can be used to restore desired plant communities and remove ecologically threatening

invasive plants. It provides outstanding control of broadleaf weeds at a lower cost than other weed control programs. It can be used to control invasive plants on roadsides and rights of way, in rangeland, permanent pasture, industrial and other non-crop areas of Canada.

Aminopyralid, the active ingredient in Milestone, is an effective, long lasting tool for managing hard to control weeds. It provides season-long control of many broadleaf species and effective bare ground control when tank mixed with Vantage™ Plus MAX II or Arsenal®.

The application recommended moving weeds currently included on the US Milestone label into a section called Invasive Plant Management. "The new section touches on points of invasive plant management and early detection and rapid response," says Ference. The PMRA also supported adding some of the invasive plants to the main weeds controlled charts in the Milestone label, including: bane, horsetail, perennial sowthistle, oxeeye daisy, tall buttercup, cudweed, curly dock, western ragweed, and prickly lettuce.

Invasive plants added to the new Invasive Plant Management section include: Common broomweed, hairy buttercup, tropic croton, tropical soda apple, bull thistle, sul-

phur cinquefoil, bitter sneezeweed, hairy fleabane, tansy ragwort, tall ironweed, fuller's teasel, and Russian knapweed.

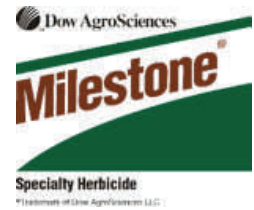
"This was an innovative submission because it was based on mostly US data. This is the first application of its kind, but we will see more submissions like this in the future," Ference says.

"The addition of an Invasive Plant Management section to a herbicide label recognizes the growing profile of invasive plants," says Barry Gibbs. "It also acknowledges the important role herbicides can play as part of a successful invasive plant management strategy.

"We value the relationship between Dow AgroSciences and the invasive species councils across Canada. By working together, we can be successful in the effective and responsible management of invasive plants," Ference concludes.

For more information on Milestone™, visit www.dowagro.com/ca/indust/

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Biocontrols: Harnessing the Power of Bugs

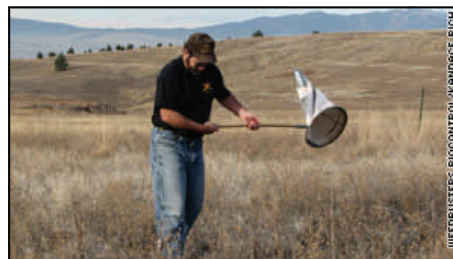
By Janet DiGiacomo, CNN News.

Bob Rich and his family are gearing up for another year of bug collecting. It's what he, his wife, his son and a few close friends do at Weedbusters Biocontrol in Missoula, Montana. They collect bugs -- specific bugs that eat specific weeds to help farmers, landowners and some state agencies rid properties from plant overgrowth.

The official name for the service this family provides is "biological control," which is the use of a living organism to control a pest. The pest in this case is any noxious or invasive plant not indigenous to a particular region. "These non-native plants overpower and displace much of our native vegetation and create a real problem for landowners. We find bugs that eat only these nonindigenous plants. And they are able to clear up the land." Rich said this method is natural, nonchemical and highly

compatible with organic farming and ranching.

Weedbusters' work does not end at collecting. The work also requires Rich and crew to identify species, separate them, store them and ship them....". The bug collecting starts in the warmer months and the family knows exactly where to go to find their catch. "There are a few places here in town that we frequent because we made the release of these bugs a few years ago..."



Bob Rich sweeps the grass for Weevils, which he will later sort, package and ship to buyers. Photo credit: Weedbusters Biocontrol.

A typical day's bug take-home count is usually from the hundreds and higher. But Rich

said there have been days -- especially when collecting leafy spurge flea beetles -- when the nets and pillowcases were filled with several thousand bugs. The Rich's bug hunt looks for the knapweed root weevil, toadflax stem weevil, leafy spurge flea beetles, red headed spurge stem borer, Canada thistle stem weevil and St. John's wort beetles. These bugs eat only the plants they are targeted for and their names say it all -- the knapweed root weevil attacks knapweed, the toadflax stem weevil eats toadflax, and so on.

In the slower months, during the winter, Rich educates potential customers with seminars. He explains everything from the types of bugs available to how to release them once the customer receives them. He is quick to point out that biocontrol does not eradicate any weed species. "Since the insect feeds only on the weed they are targeted for, they will never eradicate their only host." The bugs, he said, will reduce the plant to a low level, and then maintain it at that level. Also, the process may take years before there is a noticeable impact on weed density in a particular area.

Upcoming Invasive Species Events

June 2010

- June 1-4 Weeds Across Borders 2010 Conference, Plant Invasions, Policies and Politics, National Conservation Training Center, Shepherdstown, West Virginia, USA. For information or to register see www.weedcenter.org/wab2010/
- June 5 International Trails Day Celebration with Northeast Pioneers Greenway. Meet across from the Red River Co-op, 1123 Gateway Road in North Kildonan. 10am to noon.

September 2010

- Aug 29-Sept 2 17th International Conference on Aquatic Invasive Species (ICAIS), San Diego, California, USA
- Sept 27-30 North American Weed Management Association 2010 Conference, Pueblo, Colorado, USA

November 2010

- Nov 15-18 Canadian Weed Science Society Annual Meeting, Delta Hotel and Convention Centre, Regina. More details at www.weedscience.ca

Himalayan Balsam (*Impatiens glandulifera*): Did you know this plant is considered invasive in Manitoba?

By: Sandi Faber Routley, Invasive Species Technician, ISCM

Originally from India and the western Himalayas, this attractive orchid-like plant (also known as Policeman's helmet, Indian balsam, Arctic balsam and Poor Man's orchid) was introduced as an ornamental to many parts of Europe, New Zealand and North America. It has escaped cultivation to invade natural areas in these regions. In Canada, Himalayan balsam is found in eight provinces: British Columbia, Manitoba, Ontario, Quebec, Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland. Locally, it is found growing in some gardens and on two river bank areas in Winnipeg. ISCM hopes to stop the spread of this plant through volunteer reporting and removal.

Himalayan balsam is an annual succulent herb with stems that are smooth, reddish-colored and hollow. Plants can grow up to three meters (10 ft) tall. Leaves are opposite or whorled, red-toothed, and occur in pairs or threes. Flowers are pink to purple in color, and shaped like an English policeman's helmet (which describes another com-

mon name given). Himalayan balsam is capable of producing 800 seeds in pods which explode when ripe and eject their seeds up to five meters. Seeds will float and quickly be transported along waterways to infest new areas. Gardeners often pass on the seed to friends due to its ornamental beauty.

Himalayan balsam will grow in agricultural areas, natural forests, disturbed areas, rangelands, riverbanks, wetlands, and gardens. In areas of introduction there are no natural enemies (e.g. disease, predators or competition) to keep this plant in check, and it will aggressively grow and spread. Dense stands of Himalayan balsam can form which prevent establishment of native plants, make stream banks vulnerable to erosion when the shallow-rooted plants die back, and reduce overall biodiversity and ecological value of the land.

To prevent the spread of Himalayan balsam, the Invasive Species Council of Manitoba encourages Manitobans not to purchase, sell, plant, or exchange seeds of this known invasive plant. Please remove flowers before seed set and report sightings of this plant to ISCM to assist with its control.



C H. Balsam flower (top) and stem (bottom) photo credits: Jan Samanek, State Phytosanitary Administration, Bugwood.org

For more information contact us: (204) 232-6021, or info@invasivespeciesmanitoba.com. Also visit www.invasivespeciesmanitoba.com for a "What Not to Plant" list for gardeners.

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* 2010

Cheryl Heming
ISCM Coordinator

Doug Cattani
MAFRI

Glen Campbell
Manitoba Cattle Producers Association

John Johnston
Manitoba Weed Supervisors Association

Ron Moss
Agri-Environment Services Branch

Jane Thornton
MAFRI

Linda Christianson
Manitoba Conservation

Garth Ball
Manitoba Conservation

Bill Gardiner
MAFRI

Wybo Vandershuit
Riding Mountain National Park

Julie Sveinson Pelc
Nature Conservancy of Canada- Manitoba Region

Wendy Ralley/ Candace Parks
Manitoba Water Stewardship

Lisette Ross
Ducks Unlimited Canada

Leafy Spurge Stakeholders Group

*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)
- Assiniboine Watershed Network
- Centric Productions
- City of Winnipeg
- Ducks Unlimited Canada
- Dow Agrosiences Canada
- ECO Canada
- Evergreen-Unilever Aquatic Stewardship Grant Program
- Fisheries Enhancement Fund
- Integrated Vegetation and Management Association Manitoba/ Saskatchewan
- Invasive Alien Species Partnership Program, A Government of Canada initiative
- Leafy Spurge Stakeholders Group
- Manitoba Agriculture, Food and Rural Initiatives (MAFRI), Agriculture Sustainability Initiative
- Manitoba Agriculture, Food & Rural Initiatives
- 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
- Riding Mountain National Park
- Service Canada Summer Jobs, Government of Canada
- Sustainable Development Innovations Fund, Manitoba Conservation
- T & T Seeds



For more information Contact:

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Ph: (204) 232-6021 Fax: (204) 986-7236

E-mail: info@invasivespeciesmanitoba.com

STOP THE INVASION

ZEBRA MUSSEL

Dreissena polymorpha

Once zebra mussels establish in Manitoba, they are here to stay!

Origin

Zebra mussels are small, fingernail-sized, clam-like aquatic animals native to the Black, Caspian and Azov Seas of Eurasia.

Status

Zebra mussels were first introduced to Lake St. Clair in 1986 through discharge of fresh-water ballast from an ocean-going ship. They have quickly spread throughout the Great Lakes and southeastern North America. Recently, zebra mussels were found in the United States portion of the Red River watershed in Pelican Lake, Minnesota.

Impacts

- Aggressively invade almost any hard surface including boat hulls, motors or anything immersed in the water and can interfere with cooling systems.
- Females can produce between 40,000 and one-million eggs a season.
- Negatively impact water-based infrastructures such as public drinking water supplies.
- Reduce habitat and food availability for fish and native aquatic species.
- Costly nuisance to boaters, commercial fishers, anglers.
- Reduce recreation potential of beaches by and the accumulation of sharp shells.



LOOK FOR:

ADULTS:

- **1-3 cm** (0.4 – 1.2") long
- Most have **dark and light bands on shell**
- **Triangular or D-shaped shell**
- Hinge side is flattened with very strong hair-like filaments, called byssal threads
- Usually grow in **dense clusters**
- Zebra mussels are the **ONLY** freshwater mussel that **firmly attach to solid objects**.

YOUNG:

Called veligers, are free-swimming, and microscopic.

PREVENT THE SPREAD INTO MANITOBA. IT IS OUR BEST DEFENSE!

CLEAN and inspect watercraft, trailer and gear. Remove all plants, animals and mud. Rinse using high pressure, hot tap water.

DRAIN all water from watercraft including the motor, livewell, bilge and bait bucket.

DRY watercraft for at least 5 days in the hot sun (if rinsing is not available). Young zebra mussels die quickly out of water; adults survive for several days in damp conditions.

DISPOSE of unwanted live bait and worms in trash and dump bait bucket water on land. Never release live bait into any waterbody!

To report a sighting,

Call: **1-87-STOP AIS-0** or 1(877) 867-2470

Visit: **Manitoba.ca/StopAIS**

For more information:

Email:

info@invasivespeciesmanitoba.com

Phone: (204) 232-6021

Canada

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Photo Credits: Banner Photo: Whitney Cranshaw, Colorado State University, Bugwood.org; Shell photo: Amy Benson, US Geological Society, Bugwood.org

UNWANTED INVADERS