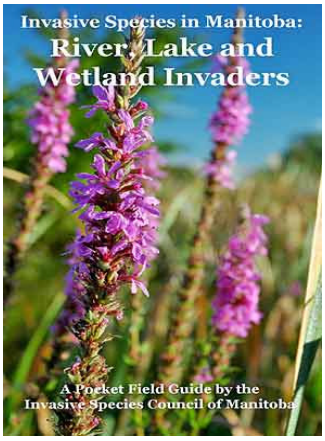
Volume 3
Issue 1
Spring
2009

Unwanted Invaders

Inside this issue:

Early Detection Rapid Response (EDRR) Program	1
When you think of Earthworms...	2
Invasive Species Council & Salt Cedar	3
Funding Sources & Partners	4
Upcoming Events	5
NEW FACT SHEET!	6

NEW Fact Sheets & Booklets Available!



Invasive Species Council of Manitoba
c/o 5006 Roblin Blvd. Winnipeg, MB R3R 0G7
Ph: (204) 232-6021 Fax: (204) 986-7236
Email: info@invasivespeciesmanitoba.com

Early Detection Rapid Response (EDRR) Program

By Cheryl Heming ISCM Coordinator & Kelly Ferrand ISCM Editor.

The invasive Species Council of Manitoba has received funding for a Manitoba Early Detection and Rapid Response (EDRR) Program. As some of you may know, an EDRR program is one of our primary goals. Thanks to the provincial Sustainable Development Innovations Fund (SDIF), we are able to pursue it this year.

Our 2008 Annual General Meeting and Workshop last November was focused on EDRR. Dr Randy Westbrooks from South Carolina presented a workshop and was the feature speaker on this topic.

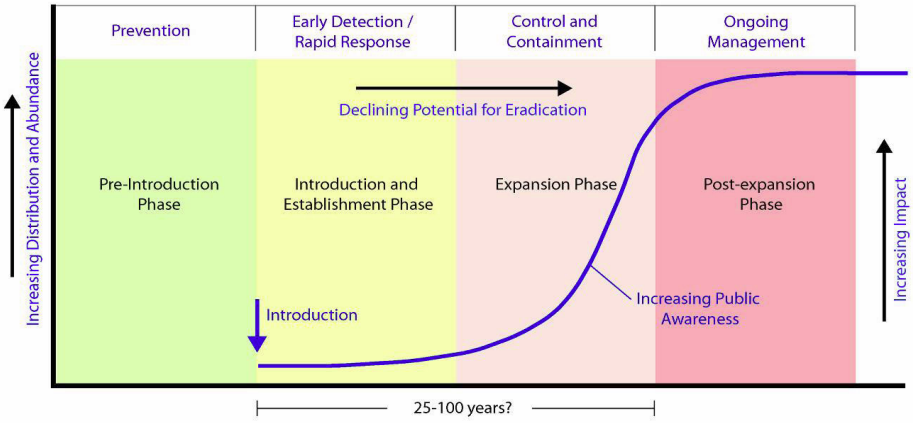
Over the winter, ISCM has been participating in the federal EDRR Working Group for Invasive Plants to develop a model for a nation wide program. Various volunteers and groups have been approached and are supportive here in Manitoba. The first Working Group meeting will be held at the end of May or early June.

The principles of an EDRR strategy are based upon stages of distribution and abundance, potential for eradication, and relative impact of invasive species along with corresponding management phases as illustrated in the figure below.

The first step is the Pre-introduction phase where an invasive plant has not yet been introduced, and focuses management on preventative measures such as public education, monitoring, and placing restrictions on the movement and use of species of concern.

The Introduction and Establishment phase occurs after invasive plants have been introduced to an area and EDRR management strategies are utilized to isolate and eradicate invasive species before they reach a more established state in the Expansion Phase. Invasive plant populations can expand rapidly in the Expansion phase making the window of opportunity for confinement and eradication increasingly smaller. Once an invasive species has reached the Post-expansion Phase it has become so widespread and abundant that management strategies must shift to focus on reducing the impact of the infestation.

For more information or to become involved please contact ISCM at (204) 232-6021 or at info@invasivespeciesmanitoba.com.



Source: Duncan, C.A. et al. The Montana Weed Management Plan. Montana Noxious Weed Summit Advisory Council, Weed Management Task Force. May 2008.

When you think of Earthworms…..

By Stephen Gietz,
ISCM GIS Technician

When you think of earthworms, you probably picture those wiggly things on the sidewalk after a rain storm or in your garden as you dig rows for planting. Little did we know that these little cultivators were actually foreigners. Around 10,000 years ago during the last ice age, if there were earthworms located in this part of Canada, they were wiped out by the large sheets of ice. There are still native earthworms located in areas that weren't glaciated, such as in the southern states, but only a few species.

Alien species of earthworms are causing damage by breaking down material too fast in certain ecosystems. The worms are perfectly fine in gardens and farm fields where their activity is beneficial, but in the hardwood forests of the American Northeast, these little critters are breaking down the material on the forest floor too quickly. In the absence of earthworms for many hundreds of years, these forests evolved to make use of the nutrients from dead plant material at a much slower rate; usually resulting in a net balance between liter fall/breakdown and nutrient uptake. The layer of dead plant material on the forest floor is known as the duff layer, and it protects the trees from certain organisms and diseases, provides habitat for other organisms, and protects the soil from erosion. The problem with breaking down the duff layer so quickly is that it exposes the soil to other elements that the trees and ground were not exposed to before. It reduces habitat and protection for the soil. Worms also make nutrients from the broken down material more available to the plants, which can result in a nutrient overload causing negative effects to local vegetation. The breakdown of the duff layer has also been associated with reducing the potential habitat for certain rare plant species that require certain conditions to exist. Also, the removal of the duff layer exposes the topsoil for invasive plant seeds to fall and germinate. So, not only would there be the issue underground to deal with, but on top of the ground too.

Human transport of worms by vehicles and bait abandonment are the primary mechanisms of earthworm introduction to non-worm populated areas. On average, an earthworm will only travel a half mile in a century, so the great expansion of earthworm territory can only be explained by humans. Initially, the creatures arrived in this land by ballast in ships from the first settlers and by the soil around root balls of plants. Modern worm translocation results from purchase of worms for vermicomposting, eggs stuck in the tire treads of vehicles, and anglers releasing their unused bait, as well as other methods.

There is another issue with the hardiness of the native species of earthworm. Since the glaciers have gone, the native earthworm hasn't returned to its native habitat. It has been speculated that the native worms just aren't hardy enough to survive in the cooler climates. This is another reason why non-native earthworms have developed such a foothold. They are not receiving any competition from native species, so their populations are just taking off.

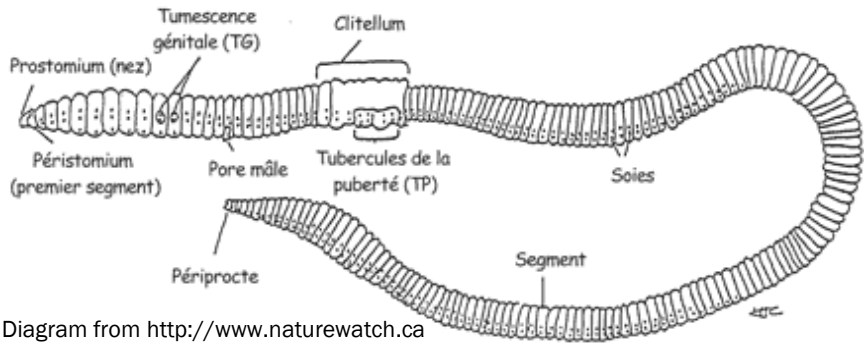


Diagram from http://www.naturewatch.ca

Currently there are no practical control methods for worms that are already present in an ecosystem. Even if you dug through your entire garden and picked out each and every worm, the eggs would remain and in a years time there will be just as many worms as before. The best method of control is to prevent their spread to new locations.

Picture from http://www.naturewatch.ca

WHAT YOU CAN DO:

If you have a compost pile, don't locate it near forest edges; try not to move mulch around from different areas. If you must move mulch, let it freeze solid for at least a week to a month to kill the worms and eggs

Don't discard you unused bait worms in the water or on shore; they don't drown, they can actually live a couple of weeks under water. If you must discard them, put them in the trash.

A few websites that may be of interest on this subject include:

Worm Watch Canada
http://www.naturewatch.ca/english/wormwatch/index.html

Invasive Earthworms
http://www.dnr.state.mn.us/invasives/terrestrialanimals/earthworms/index.html

Minnesota Worm Watch
http://www.nrri.umn.edu/worms/

For more information please contact ISCM at (204) 232-6021 or at info@invasivespeciesmanitoba.com.

Invasive Species Council & Salt Cedar (Tamarisk)

Physical Description:

General: Most salt cedars are deciduous shrubs or small trees growing to 4.5 m (15') in height and forming dense thickets. A few species can grow into large trees.

Bark: The bark of young branches is smooth and reddish-brown; becoming furrowed and purplish brown with age.

Leaves: Scale like, bluish-green, very small and overlap each other along the stem

Flowers: Pink to White with 5 petals. Form dense masses on 2-5 cm long spikes at the end of twigs. Fruit are capsules, 3-5 cm long, and split on maturity

Photo credits:
Upper left: Morton County, North Dakota website http://www.mortonnd.govoffice.com/

Middle left and right: S. Dewey Utah State University, www.bugwood.org

By: Stephen Gietz (ISCM GIS Technician)

One of the primary invasive threats that is first on the ISCM watch list is the shrub Salt Cedar (*Tamarix spp.*). It is apparently being sold through several different nurseries in Manitoba under the guise of "Pink Cascade" or "Tamarisk". In the next few years, Salt Cedar will be added to the Manitoba Noxious Weeds List, prohibiting its sale in the province.

The major concern behind this plant is similar to all invasives – it takes over the landscape. This is another plant that grows along waterways and in moist areas, taking over the stream banks and turning them into a monoculture of Salt Cedar. The major issues arise when you consider the growth habits of the Salt Cedar shrub. On average, a fully grown tree can transpire around 750 litres of water per day, potentially lowering water tables in the areas that the shrubs are found. The roots from the shrub can also clog waterways, creating the potential for flooding. As well, to protect itself from would-be predators the plant exudes salts from its leaves, which increases the salinity of the surrounding soil preventing native vegetation from reestablishing. Similar to other invasives, this plant also puts out hundreds of thousands of light weight seeds that can blow in the wind or float downstream along the waterways it colonizes.

Although naturalized clusters of the shrub have not been found, there have been several confirmed reports of it being on private property here in Manitoba. The property owners have happily agreed to remove the plants. In the US, the most northern states are beginning to have an issue with escaped ornamental shrubs taking over stream banks and altering the landscape. It has become a particular problem in Montana and North Dakota. In Pembina County along the International Border in North Dakota, there was a report of a Salt Cedar shrub that was in a private garden that as well has been removed.

The concern is that Pembina County is right along the international border and the Red River. At that point, and if there is an issue with the shrub escaping down in the US, it is only a matter of time before the seeds make their way into Canada and along our waterways.

WATCH ALERT:

The Souris River Valley flows south into North Dakota close to areas of known salt cedar presence and is therefore expected to be the first pathway for salt cedar into Manitoba. This is a high priority for prevention. It's a TamaRISK!

In terms of control, in Canada we need to focus on **prevention**; and manually removing the plants when found. We currently do not have any chemicals registered for use in water, so the chemical option is out too. In the US they have two biological controls registered for use, a mealy bug, *Trabutina mannipara*, and a leaf beetle, *Diorhabda elongate*. As well, if desirable grazing food is in short supply, cattle, goats, and sheep will graze the plant when it is still relatively young. Manual control consists of cutting the shrub or tree and removing it from the site. This however only results in seasonal control as the plant will grow back the following year. Other methods of control consist of mowing, burning, and disking the site. These also result in the removal of desired species as well, so they should be used with caution. The best method of control is through prevention. It is the least expensive and has the best results.

Salt Cedar is an attractive looking shrub that does nasty things to the landscape. If you happen to come across any Salt Cedar (Tamarisk) plants, you can report them to the Invasive Species Council of Manitoba or your local Weed Supervisor.

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* 2009

Cheryl Heming
ISCM Coordinator

Doug Cattani
MAFRI

Glen Campbell
Manitoba Cattle Producers Association

John Johnston
Manitoba Weed Supervisors Association

Ron Moss
Prairie Farm Rehabilitation Administration

Karen Rempel
Rural Development Institute

Jane Thornton
MAFRI

Garth Ball
Manitoba Conservation

Bill Gardener
MAFRI

Wayne Digby
Leafy Spurge Stakeholders Group

Julie Pelc
Nature Conservancy of Canada

Wendy Ralley
Manitoba Water Stewardship

Lisette Ross
Ducks Unlimited Canada

Wybo Vandershuit
Riding Mountain National Park

* Other Executive members to be confirmed.

The ISCM would like to thank our funding sources and partners, for we would not exist without the support of:

- Agriculture & Agri-Food Canada
  Prairie Farm Rehabilitation Administration
- Agriculture Sustainability Initiative through Manitoba Agriculture, Food and Rural Initiatives
- Assiniboine Watershed Network, City of Winnipeg, Ducks Unlimited Canada, Manitoba Agriculture, Food & Rural Initiatives, and Manitoba Water Stewardship (in-kind support)
- Dow AgroSciences Canada
- ECO Canada
- Evergreen
  Unilever Aquatic Stewardship Grant Program
- Industrial Vegetation and Management Association Manitoba/ Saskatchewan
- Invasive Alien Species Partnership Program
  A Government of Canada initiative
- Industrial Vegetation Management Association—Manitoba/Saskatchewan (IVMA—Man/Sask)
- Leafy Spurge Stakeholders Group
- Manitoba Agriculture, Food and Rural Initiatives (MAFRI), Agriculture Sustainability Initiative
- Manitoba Purple Loosestrife Project
- Manitoba Urban Green Team, Province of Manitoba
- Manitoba Weed Supervisors Association
- Rural Development Institute, Brandon University
  Service Canada Summer Jobs, Government of Canada
- Sustainable Development Innovations Fund, Manitoba Conservation
- Young Canada Works Summer Job Program through Heritage Canada Foundation

ISCM: AGM & WORKSHOP

November 19-20, 2009

Portage la Prairie, Manitoba

Upcoming Invasive Species Events

May 2009

May 4, 5, 6	CAISN AGM and Conference. Halifax, Nova Scotia.
May 9	2nd Annual Gardening Day. Canadian Mennonite University 500 Shaftesbury Blvd. 9 am - 4 pm
May 12	Leafy Spurge Bio Control Workshop, Brandon, Manitoba
May 22	International day of Biodiversity.
May 26	Forks Prairie Garden Spring Planting and Clean-Up. Nature Conservancy Canada. Volunteer event. http://www.natureconservancy.ca/
May 27	Weed Identification Session. University of Manitoba in Carmen MB.
May 30	Arbour Day: 9 am - 3:30pm at the Canadian Mennonite University at 500 Shaftesbury Boulevard . Sponsored by Trees Winnipeg: Coalition to Save the Elms. This year's event offers a variety of educational programs through out the day, interspersed with outdoor demonstrations on fundamental aspects of tree care, such as proper pruning and planting.

June 2009

June 14-18	ICLEI World Congress meeting in Edmonton, Alberta. http://www.iclei.org/worldcongress2009
June 18, 19	Saskatoon Alien Invasive Species Workshop and Seminar Series.
June 27	Spurge Pull and Hike. Stony Mountain Prairie Preserve. Nature Conservancy Canada. Volunteer event. http://www.natureconservancy.ca/

August 2009

August 8	Prairie Day at Manitoba Tall Grass Prairie Preserve, Tolstoi, Manitoba. Information (204)425-3229 or email tgpphq@mts.net

September 2009

ISCM New Website Unveiling!

Sept 9,10	IVMA Vegetation Tour and Seminar, Winnipeg MB.
Sept 21-24	North American Weed Management Association (NAWMA) Conference and Trade Show. Kearney, Nebraska. http://www.nawma.org

November 2009

Nov 3-5	Foraging Workshop - Teaching Cattle to eat weeds. Contact Jane Thornton 1-204-729-1384
Nov 19-20	ISCM Workshop and Annual General Meeting, Portage MB.

For more information Contact:
Invasive Species Council of Manitoba
c/o 5006 Roblin Blvd. Winnipeg, Manitoba R3R 0G7
Ph: (204) 232-6021 Fax: (204) 986-7236
E-mail: info@invasivespeciesmanitoba.com

Stop the Spread

Flowering Rush

Butomus umbellatus

UNWANTED PLANTS

Flowering rush's attractive flowers makes it a very popular water garden plant but it prevents the growth of native plants when it spreads to nature.

Origin

Flowering rush is native to Asia, Europe, and Africa. It was brought to North America for use as a water garden plant.

Status

First found in the United States in the 1890s it has now spread to many parts of North America. In Manitoba, it has been seen at Patricia Beach, near Lockport, and along the Assiniboine River in Winnipeg.

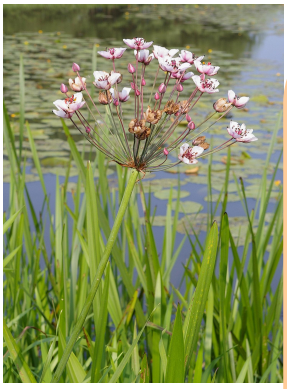
Impacts

Displaces native vegetation and reduces biological diversity.

Clogs irrigation canals.

Where to Look

Found in wetlands, sedge meadows, streams, river banks, ditches, and lake shores. It can grow on wet soil, in shallow water, or be underwater.



Look For:

- Leaves: Grow on opposite sides of the stem and are about 1 metre long.
- Flowers: Deep pink to white in colour, are 2 to 2.5cm across and are on stalks.
- Stems:Resemble bulrushes.

Prevent the Spread in Manitoba

Flowering rush is an aggressive plant that is still sold as a water garden plant. The best method to control flowering rush is to not plant it at all. Discarded plants should be burned or double bagged in garbage bags.

Report a Sighting!

E-mail: info@invasivespeciesmanitoba.com

Phone: (204) 232-6021

Canada

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

Invasive Species Council of Manitoba
c/o 5006 Roblin Boulevard
Winnipeg, Manitoba, R3R 0G7
ph: (204) 232-6021 fax: (204) 986-7236

Photo Credits: Banner photo: G. Hnatiuk; Multiple Flowers: Å. Park; Single Flower: C. Fischer