



PRAIRIE CONSERVATION FORUM

The Prairie Conservation Forum Newsletter

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Save the Date! The PCF Spring Meeting and Tour will be in south-eastern Alberta (based out of Elkwater, Cypress Hills) on June 20 and 21, 2012. More information will be sent to members as details are finalized.

Alberta Prairie Conservation Forum Educational Video Broadcast “Deep Roots: Exploring Alberta’s Grassland”

“Deep Roots” is an educational presentation created and offered by the Prairie Conservation Forum’s Education and Communications Committee. The presentation has been in the works for many years and with the help of Benton Brown, A University Applied Studies Student, Heidi Eijgle with Alberta Tourism, Parks and Recreation, and the leadership of Justin McKeown from Parks Canada, Waterton Lakes National Park, the presentation is now in pilot mode.

Deep Roots was created to educate Alberta’s youth about the importance of grasslands and aims at giving them a chance to experience these diverse landscapes without leaving their classrooms. There are direct links with the grade 4 and 5 social studies curriculum having students learn how people influence the grassland and how the grassland influences people and our way of life.

The presentation has been delivered four times via videoconference technology. One of the great benefits of using videoconference technology is the presenter does not have to travel to the classroom and can present to many different classrooms at the same time. Interaction with the student audience is not compromised as the students are encouraged to participate and ask questions through activities during the presentation.

Deep Roots has been delivered to approximately 200 students in 8 schools throughout Alberta. Next steps for the presentation include creating promotional material, post presentation activities, and ensuring continued delivery.

- Sasha Harriott



Our Vision:

The biological diversity of native prairie and parkland ecosystems is secure under thoughtful and committed stewardship of all Albertans.

Our Outcomes:

Maintain Large Native Prairie and Parkland Landscapes

Conserve Connecting Corridors for Biodiversity

Protect Isolated Native Habitats

Waterton Lakes National Park Update

By Denis Haché

Waterton Lakes National Park protects an area of national significance for its high diversity of plants and habitats. In Waterton, some of the oldest mountains in the Rockies abruptly meet the prairies along one of the narrowest sections of the Rocky Mountain chain. Frequent Chinook winds can make Waterton one of Alberta's warmest places in the winter, as well as one of its windiest. The influence of maritime weather systems from the west lead to the highest levels of precipitation in the province. The unique blend of climate and geography makes it possible for over 1,000 species of vascular plants and a large diversity of wildlife species to thrive in this relatively small park. Waterton Lakes is also the only national park that protects a portion of the Foothills Parkland ecoregion - a mixed landscape of fescue grasslands and stands of aspen trees.

The diversity of habitats in Waterton attracts many visitors to the park, but also makes the park vulnerable to colonization by non-native plants (weeds). A number of human-induced changes to the park, both past and present, have created conditions that favour the establishment of non-native plants and there are over 100 such species in the park. Some, like spotted knapweed, can disrupt plant communities, interfere with wild plant and animal relationships, and if left unchecked, have serious long-term and potentially irreversible impacts.

Parks Canada has been working to control spotted knapweed and other invasive species for several decades. Managing invasive non-native species remains one of its greatest long-term conservation challenges. Knapweed control activities have considerably reduced the severity of individual infestations, but have not slowed the gradual spread of this species. Even a single year without control can result in "lost ground". Many other species literally lie at Waterton's doorstep. Significant infestations of invasive non-native plants that are scarce in Waterton, like blueweed, Dalmatian toadflax, and leafy spurge exist along travel corridors near the park. To meet this conservation challenge, Parks Canada is persistent in its efforts to control species like knapweed and also looks beyond the weeds already established in the park. Prevention and restoration are priorities. Their strategy is developing and examines the ecological factors that lead to weeds becoming established or spreading.



A volunteer pulls weeds on her adopted patch.

Ecological factors include transportation into the park on vehicles, pets, horses, people, heavy equipment, and materials used for project work; wind, water, and wildlife movement that disperses seeds; and, natural disturbances that expose bare soil to create sites where non-native seeds can grow. The loss of natural processes like wildfires and grazing has also had an impact. Without these processes, native fescue grassland becomes dense and thatch-choked, creating cooler and moister conditions that favour non-native species like awnless brome and timothy. Many of the factors that promote non-native plant problems have a human dimension and can be addressed through changes in land-use behaviour, policy, and management approaches.



A volunteer helps to restore a disturbed site by planting native species.

In Waterton Lakes National Park, the non-native plant management team is working to cut off sources of non-native plant seeds and to restore disturbed habitat in the park. Initiatives include gravel pit inspections, a roadside maintenance plan, and regulations on importing soil. Native plant seeds have been collected in the park to grow native species and re-plant and/or seed disturbed sites. Prescribed fire plans have been developed for grassland areas and will be implemented when the proper conditions are met. The control of existing infestations is being continued in an integrated fashion. For example, spotted knapweed is being treated with herbicide, mechanically controlled through pulling, and will soon be stressed by increased herbivory after the planned release of bio-control insects. Enhanced monitoring efforts are also helping to inform the program. Continued success in management of non-native plants will rely on the ability of the program to adapt to changing situations and incorporate ecological factors to treat the causes, not just the symptoms, of the problem.

The Parks Canada restoration team is also reaching out to the public. Communication efforts seek to raise awareness of important invasive species of concern and the ways in which their spread can be prevented. Volunteers have been invited to take part in protecting the environment too. They have helped to pull weeds at group events, adopted their own patches to keep 'weed-free', gathered seeds from native wildflowers and grasses, re-planted disturbed areas, and helped to map locations of invasive plants. For more information please contact Denis Haché, Project Manager: Restoring Terrestrial Ecosystems Together, Ph: 403-859-5123, E-mail: Denis.Hache@pc.gc.ca.



A volunteer collects native plant seeds to be used to restore disturbed sites.

EDDMapS Alberta Launch

By Kelly Cooley, Project Lead, EDDMapS Alberta

(reprinted with permission from AIPC Newsletter, *The Invader*, Volume 6, No 1, Winter 2012)

Alberta Invasive Plants Council is pleased to announce the pilot launch of EDDMapS Alberta, the Early Detection and Distribution Mapping System for Alberta. EDDMapS Alberta is an innovative, web-based mapping tool, which can be used to document the distribution of targeted invasive plants across the province. It will also help to identify the leading edge of new infestations.

The original EDDMapS system was first developed in 2005 by the University of Georgia's Center for Invasive Species and Ecosystem Health. EDDMapS is now used by many varied jurisdictions across North America. AIPC is partnering with the University of Georgia to adapt this system for use in Alberta. The formation of this partnership is the first step towards extending the existing EDDMapS mapping system into North American wide, web-based mapping tool for invasive species.

This AIPC-led EDDMapS Alberta project is funded in part by Environment Canada's Invasive Alien Species Partnership Program (IASPP) and Alberta Agriculture and Rural Development Pest Surveillance Branch.

EDDMapS Alberta is designed as a tool for agencies, organizations, and individual citizens to develop more complete local, regional, and provincial level distribution data of invasive plants. Identification of "leading edge" ranges of new invasive threats allows implementation of EDRR (Early Detection and Rapid Response) programs. Invasive plant lists and management priorities can be updated regularly as new data is recorded.

Volunteers can learn how to collect data on invasive plants, and enter the data into EDDMapS Alberta through a web-based data entry form (no GIS experience is required). The intent is to empower the public to become actively involved, in order to more effectively slow the spread of invasive plants and to reduce their environmental and economic damage.

Public participation in this initiative will contribute not only to weed mapping efforts in Alberta, but also to international efforts to map the distribution and spread of invasive plants across North America.

Gathering information to input into EDDMapS Alberta requires taking photos of the invasive plant infestation and noting the location. Location information can be determined by taking the GPS coordinates on-site, or simply by using the EDDMapS Alberta on-line map functions (which are based on Google Maps) to locate the point of the infestation, and enter the details.

AIPC is grateful to the group of qualified and dedicated verifiers who have volunteered to check submissions to EDDMapS Alberta. Anyone interested in serving the pilot launch of this project as a verifier, contact EDDMapS Alberta Project Lead, Kelly Cooley. AIPC welcomes your ability and enthusiasm.

More information and training documents are available at the EDDMapS Alberta website (www.eddmaps.org/alberta/). We ask your patience as the site is currently under development. The aim is to make the website as user friendly as possible. So, check back regularly over the next several months, and bear with us as we strive to improve it for you!

The pilot project of EDDMapS Alberta will be supported by AIPC through resources to assist with training on plant identification. Excellent photos of the initial species being monitored under EDDMapS Alberta can also be found at Invasive Plant Atlas of the United States at www.invasiveplantatlast.org.

EDDMapS Alberta Pilot Program— Target Invasive Plant Species:

- Eurasian Watermilfoil (*Myriophyllum spicatum*)
- Flowering Rush (*Butomus umbellatus*)
- Garlic Mustard (*Alliaria petiolata*)
- Himalayan Balsam (*Impatiens glandulifera*)
- Hoary Alyssum (*Berteroa incana*)
- Japanese Knotweed (*Fallopia japonica*)
- Meadow Hawkweed (*Hieracium caespitosum*)
- Mouse-eared Hawkweed (*Hieracium pilosella*)
- Orange Hawkweed (*Hieracium aurantiacum*)
- Medusahead (*Taeniatherum caput-medusae*)
- Pale Yellow Iris (*Iris pseudacoris*)
- Purple Loosestrife (*Lythrum salicaria*)
- Salt Cedar (*Tamarix spp.*)
- Sulphur Cinquefoil (*Potentilla recta*)
- Yellow Starthistle (*Centaurea solstitialis*)



Yellow Starthistle,
Peggy Greb, USDA Ag Research Service, Bugwood.org

Orange Hawkweed, UAF Cooperative Extension Arhive, U of Alaska—Fairbanks, Bugwood.org.



Saltcedar, Steve Dewey, Utah State University, Bugwood.org.

News



Kochia scoparia.

Glyphosate-Resistant Kochia Found Growing in Southern Alberta

Federal agricultural researchers have found the Prairies' first confirmed case of glyphosate-resistant weeds in populations of kochia in three chem-fallow fields in southern Alberta. The weeds were found in fields where typical crop rotation does not appear to have included regular use of Roundup Ready crops. Kochia is the third weed species in Canada that is confirmed as glyphosate-resistant. Giant ragweed was confirmed in 2009 and Canada fleabane was confirmed in 2011, both in south-western Ontario.

Cattle Can be Taught to Eat Noxious Weeds

Last summer the Montana Farmers Union received a grant to teach cattle to eat weeds, specifically Canada thistle. The plants remained about 5 inches tall and never matured, meaning that they never produced seeds in fields where the cows were. The training program takes about 5 days and includes introducing cattle to familiar, and then not-so-familiar tastes and textures in an effort to train them to become accustomed to trying new foods. Near the end of the training period, cows are introduced to chopped weeds. The calves from these cows should learn to eat the weeds from their mothers. Canada thistle has a nutritional value similar to alfalfa. The full article can be found at: http://www.farmandranchguide.com/news/cattle-can-be-trained-to-eat-weeds-controlnoxious-growth/article_00234574-330d-11e1-a7ba-001871e3ce6c.html



Canada Thistle, Steve Dewey, Utah State University, Bugwood.org.

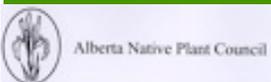


Tall Hawkweed, Peter M. Dziuk.

New Invasive Weed Found in Alberta

Tall hawkweed (*Hieracium piloselloides*) has shown up in the Hinton area. This plant has been found in B.C. and Montana, but this is the first report of its presence in Alberta. Tall hawkweed is difficult to distinguish from meadow hawkweed, and they often grow side-by-side. Typically, it is less hairy on all parts of the plant, its flower cluster less compact, and usually has no stolons. Tall hawkweed is not yet regulated under the Weed Control Act, but due to its invasiveness, eradication is recommended if it is found.

Thank-you to our contributing partners:



Government of Alberta



If you have any comments, questions or ideas, please contact the PCF Coordinator at:

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