

Central Kootenay Invasive Plant Committee

2009 Summary Report



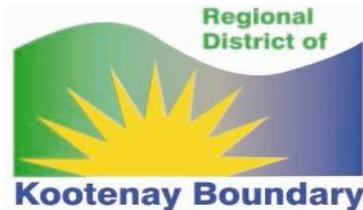
Prepared by:

The Central Kootenay Invasive Plant Committee
March, 2010

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EXECUTIVE SUMMARY

The Central Kootenay Invasive Plant Committee (CKIPC) was formally established as a non-profit society in February 2005 with the goals of education and awareness, preventing new species introduction, promoting coordinated and collaborative management, working toward control/containment of highly invasive plants, providing a conduit of information, and developing and maintaining an inventory of invasive plant species. Currently, CKIPC pursues these goals by focusing on four program areas: education and awareness, coordination, limited on-the-ground treatment, and inventory.

During 2009, CKIPC provided eight presentations to 72 people, including a Back Country Horseman's group and regional Ministry of Transportation and Infrastructure (MOTI) supervisors. We hosted our display booth at six events reaching over 1900 people and we helped to promote and advertise an invasive aquatic species workshop which was held in Sandpoint Idaho.

CKIPC continued to develop and utilize a variety of educational outreach tools, including installing highway invasive plant signs along road corridors, updating the CKIPC website (www.kootenayweeds.com), maintaining the "Weed Hotline", and widely distributing the *Invasive Plants of the Central Kootenay* and the Invasive Plant Council of BC's (IPCBC's) *Tips* and *Grow me Instead* pamphlets. CKIPC also issued eight press releases to the local media and distributed eight electronic newsletters to the 400+ membership.

A great opportunity for CKIPC in 2009 came from the funding provided by IPCBC for "Hot Spot" and "SWAT" program coordination. Results included inventory of numerous highway corridors, 15 hectares of manual treatments, and inventory of 240 hectares in 8 lake systems for Eurasian water- milfoil and other aquatic invasive species.

Other coordination and extension activities included providing support to the Nakusp, Kaslo and Slocan Integral Forestry Cooperative invasive plant Job Opportunity Program projects.

In 2009, CKIPC conducted inventories based on reports of blueweed, plumeless thistle, hoary alyssum, Himalayan blackberry and yellow flag iris. Manual treatments were coordinated on isolated sites of hoary alyssum, blueweed, plumeless thistle and yellow flag iris. As well, two trial stem injection treatments of knotweed sites were conducted in the Regional District of Kootenay Boundary (RDKB) area B on MOTI rights-of-way.

The Communities Pulling Together program had its third successful year in 2009. Six groups treated 4 hectares of high priority invasive plants; four more pulls are planned for spring 2010. A new initiative was our Youth Pulling Together program which targets elementary aged students.

It was a successful year for CKIPC thanks to the generous support and funding from many sponsors.

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1.0 INTRODUCTION

CKIPC was formally established as a non-profit society in February 2005 with the following goals:

- To raise awareness and educate the public, government agencies, and other land managers about invasive plants and their impacts in the area;
- To prevent the further introduction and spread of invasive plants through education and awareness, early detection and control, and coordinated integrated weed management efforts;
- To promote coordinated and collaborative management of invasive plants between agencies and land occupiers;
- To work toward the control/containment of highly invasive non-native plant species;
- To provide a conduit for information and a source of expertise on invasive plants; and
- To develop and maintain a comprehensive inventory of invasive plant species within the CKIPC area.

Currently, CKIPC pursues these goals by focusing on four program areas which are education and awareness, coordination, limited on-the-ground treatment and inventory. Our intention is to move in the direction of coordinating and delivering increased on-the-ground treatment during the next few years. CKIPC's activities focus on the RDCK geographic area, and Areas A and B of the Regional District of the Kootenay Boundary (RDKB). This report summarizes CKIPC's activities from January to December 2009.

Administration

Board of Directors, Contractors and Membership

The Board of Directors for 2009 as elected at the Annual General Meeting and appointed throughout the year, include:

- Catherine MacRae Chair (Ministry of Forests and Range)
- John Gwilliam Vice-Chair (Retired Wildlife Biologist)
- Terry Anderson Treasurer (Ministry of Environment)
- Alan Freeborn (Kootenay Weed Control)
- Darrell Smith (Ministry of Agriculture and Lands)
- Carol Bell with Hilary Elliot as her alternate (Regional District of Central Kootenay)
- Valerie Huff (Consulting Botanist)
- Ingrid Russell (Ministry of Forests and Range, BC Timber Sales)
- Rob Davidson (Creston Valley Beef Growers)

Our Coordinator in 2009 was Eva Cameron. Jennifer Vogel and Frances Swan were contracted to complete inventory, extension and treatments for CKIPC. Juliet Craig, CKIPC's former coordinator, provided valuable advice through 2009.

CKIPC currently has an open membership policy. Any person who wishes to join the weed committee needs to provide their email address to the CKIPC coordinator. There are currently over 400 members of CKIPC, which is an increase from 2007 of 100 members.

2.0 EDUCATION AND AWARENESS

One of CKIPC's main program areas is education and awareness. The key messages for education and awareness are as follows:

- Invasive plants threaten our ecosystems and economy,
- People are the biggest source of spread of invasive plants,
- Prevention is the best control, and
- CKIPC promotes a collaborative and cooperative approach to invasive plant management in the central Kootenay.

Activities undertaken in 2009 included presentations and events, and the distribution of outreach tools and publications.

Presentations and Events

Workshops and Presentations

Presentations were given to a variety of local community groups, including 3 municipalities. Presentations were also given as part of training workshops (Table 1).

Table 1: Groups and locations of presentations in 2009.

| Date | Event | Location | Audience |
|-----------|---|-------------------------------|----------|
| May 13 | MOTI Supervisors Meeting | Nelson | 15 |
| May 21 | RDKB area A landfill attendants | Trail | 4 |
| June 2 | Municipality of Salmo | Salmo | 3 |
| June 3 | Municipality of Rossland | Rossland | 4 |
| July 22 | Kokanee Creek Interpretive Centre | Kokanee Creek Provincial Park | 22 |
| August 17 | Castlegar Bylaw Officer | Castlegar | 1 |
| August 23 | Backcountry Horsemen of BC – Kootenay Chapter | Trail | 20 |
| | | TOTAL | 69 |

Invasive Aquatic Species Workshop

CKIPC helped to promote and advertise the cross border workshop “Invasive Aquatic Species: The future for the big lakes of Idaho” which was held in Sandpoint Idaho. The workshop was advertised through our member newsletter and CKIPC contacted coordinators and contractors in southern BC who are beginning to express interest in aquatic invasive species. Featured speakers included the following:

Dr. Bill Haller - University of Florida Professor and Director of the Center for Aquatic and Invasive Plants. He specializes in invasive species, aquatic plant ecology, physiology, and management;

Amy Ferriter - Invasive Species Coordinator for the Idaho Department of Agriculture;

Tom Woolf - Aquatic Plants Program Manager for the Idaho Department of Agriculture.

Crystal Klym – Senior Project Manager for IPCBC; and

Eva Cameron - CKIPC Coordinator.

This was an excellent opportunity to meet US and Canadian invasive plant specialists. Information was shared concerning education, monitoring and treatment methods in the United States and BC, and a discussion was held concerning invasive aquatic species that have potential to move into BC.

The Idaho Department of Agriculture presented the results of a boat wash station project which was completed at boat launches in Idaho during the summer of 2009. This project may serve as a model CKIPC could use in a future aquatic education and outreach program.

Display booth

During 2009 the CKIPC display booth was hosted at six events, including spring and fall venues (Table 2). Given the invitations we receive to host our display booth at a variety of venues, and the cost associated with transporting and hosting the booth, CKIPC is following a rotation schedule to ensure that over a three to five year period, the booth will have a presence at each community in our area.



Table 2: Events where the CKIPC display booth was hosted in 2009.

| Date | Event | Location | Audience |
|-----------|-----------------------------------|-------------------------------|----------|
| April 25 | Creston Garden Conference | Creston | 75 |
| May 09 | Nelson Garden Festival | Nelson | 350 |
| July 5 | Rossland Garden Tour | Rossland | 35 |
| Aug 01-12 | Kokanee Creek Interpretive Centre | Kokanee Creek Provincial Park | 300 |
| Sept. 12 | Kaslo Market | Kaslo | 50 |
| Sept 13 | Hills Garlic Fest | New Denver | 1000 |
| | | | |
| | | TOTAL | 1810 |

Landowner Visits



CKIPC completed seventeen landowner visits in the Salmo, Sheep Creek, Pass Creek, Kootenay Lake, Rossland, Winlaw, Slocan Valley and Fruitvale areas in 2009. Discussions focused on biocontrol; its benefits and limitations; and on invasive plant identification. Additional management suggestions were also provided. Landowners were interested to learn that many biocontrol agents were already present on their property.

Ministry of Transportation and Infrastructure

Eva Cameron gave a one hour presentation to 15 regional MOTI supervisors that built on last year's collaborative IPCBC "Roads and Weeds" workshop (Table 1). Practical, feasible, and cost effective tools for standard roadside activities were discussed, including highway surface and shoulder gravelling, highway shoulder maintenance, ditch and watercourse maintenance, vegetation control, and rest area and gravel pit management.

Invasive Plant Job Opportunity programs (JOP)

Invasive plant JOPs in Kaslo and Nakusp were supported with invasive plant identification, inventory and IAPP data entry training, and assistance with invasive plant species prioritization. CKIPC invasive plant highway signs and IPCBC and CKIPC brochures were provided to each JOP as a public education resource. The Kaslo JOP project was highlighted at the September 12th display booth at the Kaslo Market (Table 2); one of the crew members assisted Eva Cameron in presenting highlights of their JOP to the public.

Nakusp's invasive plant JOP crew manually treated high priority sites of blueweed, hoary alyssum, Himalayan blackberry, baby's breath and Scotch broom in the Municipality of Nakusp. Public education/ outreach was an important component of this project.

The Kaslo JOP crew completed an inventory of Area D moving from south to north starting at Balfour and ending at Gerrard and the upper Duncan Lake Forest Service Road (FSR); all jurisdictions were included. The majority of manual treatments were conducted following inventory on Scotch broom, common tansy and Himalayan blackberry; small infestations of blueweed and hoary alyssum were manually controlled as they were found during inventory. A grader trial on spotted knapweed occurred at the old Meadow Creek scale; a large open area infested with knapweed was graded and two different seed mixes were planted in separate areas of the old scale yard; an unseeded control was left for comparison. A mini-hoe trial was conducted on the Duncan FSR; common tansy roots were first excavated by the hoe, then removed by the JOP crew. CKIPC monitored these sites in 2009 and will monitor efficacy of both trials again in 2010.

Slocan Integral Forestry Cooperative's (SIFco) JOP crew undertook a project to control invasive plants growing along roadsides and other disturbed areas within SIFco's Community Forest Agreement tenure. Target species included primarily spotted knapweed, but other species such as hawkweeds, thistles, oxeye daisy, and St. John's-wort were also treated. FSR road edges were first hand pulled, then were graded, hand raked and grass seeded by the JOP crew. CKIPC members were impressed with the results of the treatments during an initial monitoring field trip in October 2009 and we will monitor the treatments again in 2010.

Publications and Outreach Tools

Brochure

The CKIPC brochure has proven to be popular; it outlines what invasive plants are, why they are a problem, what people can do, and as well provides general information about CKIPC and how to become a member. The brochure was made available at fairs, presentations, Communities Pulling Together (CPT) events, workshops, and at a diverse variety of garden centres, farmer supply stores, coffee shops, offices, information booths, and to IPCBC "Hot Spot" and JOP crews. CKIPC circulated the Invasive Plant Council's *T.I.P.S.* brochures and the new "*Grow Me Instead*" brochure which targets gardeners and suggests replacement choices for invasive plants. CKIPC continued to distribute the WeedsBC "*Guide to Weeds*" and "*Seven Steps to Managing Your Weeds in British Columbia*" to key groups, resource centres, municipalities, and libraries.

Invasive Plant Carabiners

Invasive plant carabiners featuring priority invasive plant identification cards were first developed and distributed provincially in 2007. In 2009, a card showing a photo and description of Himalayan blackberry was added to CKIPC's carabiners; 1000 carabiners

were assembled and approximately 250 carabiners were distributed this year at CPT events, landowner visits and presentations.

Website

Our website continued to be updated and revised. More information was added this year to link to invasive plant resources beyond CKIPC. The website is widely advertised in our written literature, and may be viewed at www.kootenayweeds.com. The IPCBC's "Report-A-Weed" 1-888-WEEDSBC number was added to our website as an alternative phone number for people wishing to report an invasive plant sighting.

Weed Hotline

The CKIPC "weed hotline" (1-250-352-1160) was well advertised in 2009. CKIPC received 130 phone calls and 180 emails from people inquiring about invasive plant identification and management, requesting membership information, and expressing general concern about the perceived lack of management of invasive plants on crown lands. Many calls were regarding spotted knapweed on transportation and utility corridors; a number of people requested biocontrol agents for knapweed. Some reports of potential Eurasian milfoil locations were received as a result of the Eurasian water milfoil sign project, but upon investigation, were species of native milfoil.

Invasive Plant Highway Signs

The highway sign project continued in 2009; signs generated interest and inquiries from the public about invasive plants. Forty-five signs were posted along major road corridors in the central Kootenay, timed to coincide with the flowering of each species. Signs were removed once the plant finished flowering. Local JOP crews supported the installation, maintenance and removal of signs throughout their projects.

Eurasian Water Milfoil Signs

The Fish and Wildlife Compensation Program's (FWCP) summer crews installed 12 Eurasian milfoil interpretive signs at Kootenay Lake boat launches and at other sites that experience high public use. An article was written by FWCP and submitted to the press; it was also sent to CKIPC members in our newsletter (Appendix 1). In addition to these signs which were funded by FWCP, the Columbia Power Corporation provided funds to produce another twelve signs, some of which will be installed in early 2010.

Press Releases

Eight press releases were submitted to local newspapers in 2009 (Appendix 1). Feature press releases included the following:

- *This Spring, Effective Disposal of Invasive Plants is Important.* June 3;
- *Community Groups Can Pull Together For Cash.* July 14;
- *Horse Owners Beware of Toxic Weeds.* August 18;
- *Help Stop the Spread of Eurasian Water-Milfoil.* August 18;
- *Invasive Milfoil Has Made its Way Into Kootenay River.* August 20;
- *Fighting the Invasion;* August 24;
- *Divers Also Clear Milfoil From Christina Lake.* September; and
- *Group Tackles Problem at Roots.* October 15.

Radio interviews were broadcast on Mountain FM about Eurasian water milfoil treatment in Champion Lakes and on CBC about the removal of Himalayan blackberry by IPCBC “Hot Spot” crews in Kokanee Creek Provincial Park. The text from each interview was printed by local papers and was available on-line at The Rossland Telegraph, The Agri Digest and on the IPCBC website (<http://www.invasiveplantcouncilbc.ca/>).

E-Newsletters

Eight e-newsletters were sent to the CKIPC membership in 2009. This year we included information on Weed Committee and IPCBC Job opportunities in the e-newsletter. Each e-letter included the following information:

- Current CKIPC projects (updating activities CKIPC was involved in);
- What’s happening? (Calendar of Events);
- Did you know? (Current information on invasive plants); and
- Weed of the week (a profile of an invasive plant species).

Youth Pulling Together Program

The Youth Pulling Together (YPT) program was developed in 2009 with the goal of targeting young people and school groups. Ten teaching kits are being developed for Grades 4 to 6. The YPT program utilizes the Fraser Basin Council’s “Nab the Bully” program and other teaching tools to meet learning outcomes in Science and Social Studies for Grades 3 to 6 in our region. Outdoor YPT sessions will be conducted by CKIPC with ten classes in the spring of 2010 targeting accessible invasive plant sites near schools.

Provincial Coordination

The CKIPC Coordinator represented the committee on a broader level (primarily Provincial) to ensure that current information is brought to the central Kootenay and that the concerns and issues of the central Kootenay are taken to the Provincial level. The CKIPC Coordinator participated in a number of meetings including the following:

IPCBC Forum and AGM (Richmond – January);
IPCBC communications committee tele-conference (Monthly);
IPCBC Coordinators meeting (Richmond – October); and
IPCBC Monthly Coordinator calls(Weed Coordinators Working Group) and weekly Friday File feedback.

3.0 ON-THE-GROUND TREATMENTS

Terasen Gas and RDKB Areas A and B

Jennifer Vogel was contracted by CKIPC to mentor under John Gwilliam, who has coordinated the invasive plant program for Terasen Gas and Areas A and B of the RDKB from 2007 to 2009. CKIPC will assume full responsibility for coordinating this program in 2010 following John's retirement. In 2009, invasive plant management activities focused on areas where there were landowner concerns and where Terasen right-of-way (ROW) represented important wildlife habitat or was found in close proximity to sensitive wildlife habitat potentially impacted by invasive plants travelling off the ROW. CKIPC's invasive plant priority list and strategic plan for the central Kootenay was followed when planning treatment activities; areas targeted for invasive plant inventory were established in consultation with Catherine MacRae, Invasive Plant Specialist, Ministry of Forests and Range (MFR).

Twenty sites were treated with herbicides and 10 sites were manually treated in the general vicinity of Sunshine FSR and Nine Mile Road near Fruitvale, Santa Rosa and Swehaw FSRs west of Big Sheep Creek, Tiger Creek near Rossland, near the junction of Highway 22A and lower Columbia Gardens Road, and Hutchison Road off Columbia Gardens Road. Target species included hoary alyssum, common tansy, and spotted and diffuse knapweed. Incidental species such as sulphur cinquefoil, ox-eye daisy and St. John's wort were also treated if they were growing with target species.

Four releases of *Cyphocleonus achates*, a biocontrol agent for knapweed, were made on or immediately adjacent to Terasen pipelines by Crackerjack FSR near Creston. A reconnaissance conducted during the fall of 2009 identified additional release sites on Terasen ROW; *Cyphocleonus* will be released at these sites in 2010.

Mogulones cruciger, a hound's tongue root feeding weevil, was released at three sites, one in the RDKB area B on Drakes road, and two in Rossland.

All inventory and treatment data was entered into the Invasive Alien Plant Program application (IAPP).

Ministry of Transportation and Infrastructure

A list of roads that were high priority for early mowing was provided to MOTI in 2009. IPCBC "Hot Spot" crews inventoried and manually treated target species along numerous highway corridors in the southern portion of the CKIPC region. In Salmo, CKIPC pulled and monitored field scabious on Airport and Porcupine Roads. An isolated yellow flag iris site south of Nakusp on highway 6 was removed in early summer and a stem injection trial was conducted on one site of giant knotweed and one of Japanese knotweed in the RDKB area B on MOTI ROW. CKIPC will monitor both sites for efficacy in 2010.

Coordination of Invasive Plant Council of BC crews

IPCBC provided funding for a crew of five people who completed inventory and manual treatments along roads bordering the United States. Although the focus was to ascertain whether yellow starthistle had crossed the border from Washington State into Canada, a multi-species inventory was conducted along all roads surveyed. The “Hot Spot” crew also treated yellow flag iris in the Creston Wildlife Centre and teasel sites in Creston, Patterson, and Rossland. They inventoried mouse ear hawkweed in Kokanee Creek Provincial Park and staked it for follow-up herbicide treatment, and they manually treated Himalayan blackberry, Scotch broom, black locust, and hoary alyssum in Syringa and Kokanee Creek Provincial Parks (Appendix 2).

CKIPC assisted IPCBC with hiring, training, and directing the day to day activities of the crew throughout the duration of the project. CKIPC also hosted an IPCBC training program in July for “Hot Spot” crew workers in Castlegar; the course was also attended by local JOP crews.



A “SWAT” crew of 2 people was funded by IPCBC to conduct Eurasian water-milfoil surveys in eight lake systems in the central Kootenay in November and December. Invasive milfoil was found only in Duck Lake north of Creston. The eight lake systems surveyed were Nancy Greene, Champion, Erie, Duck, Summit, Box, Wilson and Slocan. The search for Eurasian water milfoil plants began with the pre-selection of several one-hectare survey sites located in littoral zones that were most likely to harbor Eurasian Milfoil and were also accessible by boat or otherwise; sites included boat launches, public beaches, significant bays and out-flowing creeks and rivers. Aquatic plant sampling was not limited to these sites, but was conducted throughout each lake’s littoral area as much as possible.

All data from “Hot Spot” and “SWAT” crew treatments and inventories was entered into IAPP.

‘Communities Pulling Together’ Program

The CPT program raises awareness about invasive plants in the central Kootenay and engages groups in management and stewardship. In 2009, the CPT program was continued and has built on the success of the 2007 and 2008 programs. CPT encourages community groups to commit three hours to manual treatment of a high priority invasive plant site. The program includes an introduction to invasive plants and information on identification, appropriate methods of treatment, and disposal. In recognition of the group’s efforts, each one receives a \$250 honorarium, t-shirts (with the CPT logo), refreshments, invasive plant carabiners, and other invasive plant education items.

CKIPC facilitated six CPT events for a variety of groups in 2009; four more are planned for early spring 2010. Target species included Scotch broom, yellow flag iris, policeman's helmet, hoary alyssum and common teasel. Sites were selected early in the season and matched with interested community groups and additional invasive plant carabiners were produced and assembled for the program. There was excellent feedback from participants and two of the returning groups are stewarding areas where they conducted their first community pull. CPT treated sites will be monitored for treatment efficacy in May and June 2010.

All CPT treatment data was entered into IAPP.

Ministry of Forests and Range



CKIPC collected 2900 (29 releases) *Cyphocleonus achates*, a weevil whose larvae impact knapweed roots. Twenty five releases of the biocontrol agent were shipped to other areas of the province and 4 releases were re-distributed near Creston. CKIPC manually treated three rush skeletonweed sites and one policeman's helmet site for MFR on Goose and Garrity FSRs. One pass was completed in July and the other in August.

Other Invasive Plant Priority Site Management

CKIPC manually controlled some small weed infestations of priority species this year while working on other projects. In Salmo, we pulled and monitored field scabious along a rail trail site and on MOTI ROWs and conducted a door-to-door campaign with adjacent private land owners. Jen Vogel and Eva Cameron hand pulled three isolated sites of rush skeleton weed and hoary alyssum while conducting inventory in the Slocan valley.



Sheet mulching was used to control common teasel rosettes and Japanese knotweed at two sites in Rossland; treatments will be monitored for effectiveness in 2010. This is the second year of treatment at the knotweed site and stem vigour was notably reduced from the initial 2008 CPT treatment.



There were several garden waste dump sites found on dirt roads near Kaslo, Winlaw, and Rossland which CKIPC monitored; waste was removed from the sites and taken to the landfill. Invasive plants which were discovered at these isolated dump sites included policeman's helmet, hoary alyssum, Japanese and giant knotweed, and common tansy. Most of these dump sites are in areas close to creeks or where these invasive plants are not yet present. Monitoring of these sites and educating the public with articles and signs will be accomplished in 2010.

4.0 INVENTORY AND MAPPING

Inventory

The strategy for inventory in 2009 was to work toward completion of multi-species inventories where there were still gaps in the region. “Hot Spot” crews inventoried all roads bordering Washington State and Jen Vogel, Eva Cameron and Juliet Craig completed inventories in the Pass Creek and Lower Slovan area. The Kaslo JOP crew completed a multi-species inventory of the RDCK area D north of Balfour on all main roads.

MFR Provincial inventory standards were used and a *Site and Invasive Plant Inventory Record* was completed at each site. Generally, 100m breaks or private land boundaries were used to designate new sites.

Another component of CKIPC’s inventory strategy is to follow up on reports of rare or isolated patches of invasive plants in the area. New sites inventoried and/or treated in 2009 contained Himalayan blackberry, plumeless thistle, common teasel, blueweed and hoary alyssum.

All inventory data was entered into IAPP.

Mapping

A priority species map for RDCK areas A, B, C and D was produced to facilitate inventory and land management coordination with groups working in the area. A GIS contractor was given IAPP extracts of high priority sites and he worked with the CKIPC coordinator and chair to produce concise maps of species and site locations; MFR plotted the maps. The Creston Valley Beef Growers and the IPCBC “Hot Spot” crews utilized these maps for inventory and treatment planning.

5.0 FUNDING

Agency Contributions

Funding for 2009 was generously provided by numerous agencies (see Table 3). Some of this funding was project specific (e.g. education, community pulling program, inventory and biocontrol) while other funding was for general committee activities. We are particularly grateful for those “general” funds, provided by Ministry of Agriculture and Lands, BC Hydro, Atco Wood products, and the Fish and Wildlife Compensation Program in cooperation with FortisBC, since they allow the committee to continue to function and to provide general programming.

Table 3: Weed program revenue summary by funding agency in 2009.

| Agency | Funding Contribution 2009 | Description |
|--|---------------------------|--|
| IPCBC “Hot Spots” and “SWAT” crew coordination | \$9495.98 | Project coordination |
| Ministry of Agriculture and Lands | \$42,000.00 | General funding for 3 years; 2009 to 2011 |
| Columbia Basin Trust | \$11,400.00 | Education, CPT, YPT |
| Agriculture Environment Partnership Initiative (AEPI) and BC Ag. Council | \$8,000.00 | Education and awareness |
| Ministry of Forests and Range | \$ 5,000.00 | Biocontrol agent collection, manual treatment, inventory |
| BC Hydro and Fish & Wildlife Comp. Program (with Fortis BC) | \$ 6,500.00 | General funding and milfoil signs |
| Terasen Gas | \$1,800.00 | Inventory, manual treatment, data entry |
| Regional District of Kootenay Boundary | \$4,000.00 | Education and outreach |
| Columbia Power Corporation | \$2,250.00 | Milfoil sign production |
| Atco Wood Products | \$250.00 | General funding |
| | | |
| Other Revenue | \$898.81 | GST Rebate |
| | \$15.27 | Interest |
| | | |
| TOTAL FUNDS | \$91,610.06 | |

In-Kind Contributions

A number of agencies and companies provided in-kind services this year (Table 4):

- Ministry of Environment: (Treasurer, use of meeting rooms, photocopying, colour printing);
- Ministry of Forests and Range: (Chair and board member, photocopying printing, carpooling, storage, training for IAPP, inventory, biocontrol agent collection, general);
- Ministry of Agriculture and Lands: (board member, book keeping, booklets and materials);
- Kootenay Weed Control (board member); and
- Regional District of Central Kootenay (board member and use of meeting room).

Table 4: Estimated In-Kind Contribution to CKIPC by a variety of agencies in 2009.

| Category | Estimated In-Kind Contribution |
|-------------------------|--------------------------------|
| Human resources | \$10,175.00 |
| Materials & Supplies | \$500.00 |
| Meeting rooms | \$700.00 |
| Travel & field expenses | \$3000.00 |
| Grand Total | \$ 14,375.00 |

CKIPC Program Expenditures

Table 5 provides a summary of CKIPC Program expenditures in 2009.

Table 5: CKIPC Program Expenditure Summary 2009.

| Activity | Expenditures |
|----------------------------------|---------------------|
| Inventory and mapping | \$3,017.56 |
| On-the-Ground Treatment | \$9,088.74 |
| Administration and Coordination* | \$34,795.27 |
| Education and Awareness | \$13,737.35 |
| Compliance and Enforcement | 0 |
| Research | 0 |
| Other....Strategy | \$1,216.00 |
| Total | \$ 61,854.92 |

* Note that GST was not included in the above expenditures.

7.0 OPPORTUNITIES AND CHALLENGES

Generous funding from a broad group of agencies in 2009 allowed CKIPC to continue offering outreach and education and allowed us to move into more on-the-ground work. The IPCBC “Hot Spot” and “SWAT” programs and local JOP projects presented an opportunity for unemployed resource workers to be trained as crew workers in invasive plant management; this gave CKIPC an opportunity to coordinate inventory and manual treatment of priority sites across the region. Much of this work would not have been completed without these programs. John Gwilliam provided training to CKIPC contractors in 2009 with the goal of CKIPC assuming full responsibility for the Terasen Gas and the RDKB area A and B program in 2010. There is also good potential for CKIPC to work more closely with the CVBG in 2010 to coordinate invasive plant prioritization and treatment from Yahk to Creston through to Salmo.

Many of CKIPC opportunities in 2009 were also our challenges. It was a stretch for the committee to deliver successful programs such as “Hot Spot” while at the same time maintaining our commitments to other funders.

8.0 PROPOSED PROGRAM FOR 2010/11

CKIPC is excited about the proposed projects described in Table 6. We anticipate that 2010 will see us take on more “on-the-ground” invasive plant management projects, while at the same time continuing to move forward with a broad outreach and public education program.

Table 6: Proposed CKIPC Projects for 2010.

| Proposed Project | Description |
|---|--|
| Communities Pulling Together | <ul style="list-style-type: none"> • Target Priority Species sites with 10 stewardship, non- profit groups • monitor 2009 CPT treatment sites for efficacy |
| “Youth Pulling Together” School program Education and school yard site pulls | <ul style="list-style-type: none"> • 10 Presentations/workshops in schools, stewardship of schoolyards and close green spaces • 8 Resources packages sent out to youth groups • French material developed |
| RDCK & RDKB landfill staff training | <ul style="list-style-type: none"> • No tip fee program guidelines-bagging • Invasive Plant ID |
| Invasive plant profiles | <ul style="list-style-type: none"> • Develop more and categorize from 2010 priority list |
| Invasive Aquatics Web site page and links | <ul style="list-style-type: none"> • Invasive Aquatics page for region • Link to IPCBC resources and assist with |

| | |
|---|---|
| | development |
| Invasive highway sign program | <ul style="list-style-type: none"> • Engage members to manage signs in their communities • Install 50 signs in growing season |
| Spotters workshops for Trail Societies, Garden Clubs and Naturalist groups, Agriculture and range | <ul style="list-style-type: none"> • Inventory and mapping tools • Best Management tools for species being controlled |
| Library displays | <ul style="list-style-type: none"> • Spring library displays and workshop at libraries in region |
| Land owner visits | <ul style="list-style-type: none"> • Management tools and assessment of IP and bio controls |
| Inventory | <ul style="list-style-type: none"> • Continue Slocan Valley inventory and Crawford Bay to Creston • FSRs in areas not recently inventoried |
| Monitor Knotweed field trials | <ul style="list-style-type: none"> • Sheet mulching • Stem injection trials monitored • Treat other knotweed sites |
| Management trials on <i>Tussilago farfara</i> sites | <ul style="list-style-type: none"> • Digging/sheet mulching and monitor |
| Best Management Practices for Municipalities and Public Works crews | <ul style="list-style-type: none"> • Develop a Weed Management Plan for City/Municipal staff • Education tools- Id key chains, posters for lunch rooms |
| Garden Center workshops & training | <ul style="list-style-type: none"> • Staff training: utilize the IPCBC <i>Grow Me Instead</i> campaign • Engage nurseries to advertise replacement plants for invasive plants in their displays and advertising |
| Biological Control releases and collection of agents and monitor 2009 releases | <ul style="list-style-type: none"> • Monitor hound's tongue releases in Fruitvale and Rossland • Assist MFR with collection, monitoring and releases of biocontrol agents |
| Booth/ display update | <ul style="list-style-type: none"> • New pictures and information added; 6 venues for display |
| Brochures distributed | <ul style="list-style-type: none"> • Dentists and Doctors offices • Realtors-contact realty board • re-stock other venues |
| Coordinated invasive plant | <ul style="list-style-type: none"> • Work with Terasen Gas, BCTC, the RDKB, and |

| | |
|--|---|
| management on Terasen Gas ROWs, in the RDKB areas A and B, and in the Creston area | the CVBG |
| “Hot Spot” and JOP crews | <ul style="list-style-type: none">• Provide training and direction for IPCBC “Hot Spot” and local JOP crews |

Appendix 1: Featured Press Releases.



Fighting the invasion

Volunteers from the Rotary Club of Rosland work with the Central Kootenay Invasive Plant Committee removing invasive plant species from areas around the city.

Trevor Kahoe

12 Trail Rosland News

2009 09 24

www.trailrosslandnews.com

FRONTROSE & FRUITVALE TRAIL DAILY TIMES

EURASIAN MILFOIL

2009 09 28

pg 1

Team pulls invasive plant from lake

BY VALERIE SCHILLACI

Times Staff

While you probably wouldn't know it was there unless you ran your foot along it while swimming, an invasive aquatic plant has been thriving in Champion Lakes for over 20 years.

But a dedicated team has reduced the number of mature plants through annual treatments and this year, the group came close to their goal of wiping the species out.

When a team first started to remove Eurasian water milfoil – a submerged aquatic plant that grows in still or slow-moving water – more than 3,000 were pulled from Champion Lakes in the early 1980s.

Last year, only eight were found and this year, 31 plants were taken out of the water.

The aggressive plant has been transported to lakes throughout North America by boaters and recreationists.

It grows in shallow water – up to 30 feet deep – and if not removed can destroy swimming holes. In some lakes, thick patches of milfoil choke boat propellers, clog beaches and out-compete native plant species.

"If we didn't do this every year, the whole lake would be full of milfoil..."

TERRY ANDERSON

"If we didn't do this every year, the whole lake would be full of milfoil, nobody would swim and eventually the plants would rot and take up oxygen from the fish and painted turtles living in the water," explained Terry Anderson, treasurer of the Central Kootenay Invasive Plant Committee, which secured a grant for the project this year.

The \$2,000 initiative is funded by the province, which hires the Regional District of Kootenay Boundary to manage the job.

Two divers and a supervisor spent about seven hours Friday scanning the lake for the plant.

When found, divers clip the plant into a net and carefully removed it from the water – a practice that has been perfected since the species easily spreads when its tiny branches break off and re-root at the bottom of the lake.

"It's like underwater gardening," said Hailey Troock, a 23-year-old diver.

She and Catherine Lund, 23, have developed a very intimate relationship not only with Champion but Christina Lake, too – especially since Lund has also written a research paper on milfoil.

"I see the lake from a completely different view," said Troock of her time spent scanning the 650 properties on Christine Lake.

See DIVERS, Page 2

Community Groups Can Pull Together For Cash

Tansy, yellow flag iris, Scotch broom, teasel, policeman's helmet, and the list goes on. Not a shopping list, or a roll call, or a recipe for a magic potion, these resilient, foreign interlopers squeeze out our valuable, native plants in the competition for water, soil, and light.

So what do we do in the fight against these plants that are taking over? The Central Kootenay Invasive Plant Committee (CKIPC) says, **PULL!**

Any interested community members in volunteer societies or groups can become involved in the CKIPC Communities Pulling Together initiative. This program encourages community groups to become local stewards through the control of invasive plants at a high priority site. In recognition of the group's efforts, the committee provides you with a \$250 honorarium for your efforts, as well as gifts and refreshments.

Anyone can become involved. Previous participants have included Streamkeepers, garden and trails clubs, rod and gun clubs, community service and arts groups, church groups, etc. It's a wonderful way to promote stewardship, encourage a family activity, and raise money for your community group.

How does it work? Fill out the application form at www.kootenayweeds.com and send it in to the Central Kootenay Invasive Plant Committee. We will be in touch with you once we have found a high priority site that matches your local interests.

If everyone pulls together, our community and environment will stay strong and healthy!

The Central Kootenay Invasive Plant Committee is a non-profit which conducts education awareness programs and promotes coordinated management of invasive plants in the RDCK and areas A and B of the RDKB. Please see our website www.kootenayweeds.com for more information.



Castlegar Friends of Parks and Trails remove Scotch Broom at the Kootenay Gallery. Below Kaslo Area Youth Council receive their cheque for removing Scotch Broom, in Kaslo Bay.



CONTACT THE TIMES:

This spring, effective disposal of invasive plants is important

Spring has sprung and so have those tenacious invasive plants which are popping up in gardens.

People have introduced a number of plants to this area as cultural ornaments which have jumped the fence to neighbouring yards and alleys to their move on to colonize forests, grasslands and wetlands. As pretty as some of these plants are, because they arrive in Canada without their natural predators to keep them in balance, they can spread rapidly, forming dense patches over huge areas causing irreversible impact to ecosystems, agriculture and even man-made structures. Around the world, invasive species are considered the second largest contributor to the loss of biodiversity (e.g. extinction of species next to the loss of habitat).

To rid a garden of invasive plants and control the spread of them, care must be taken with their handling and disposal. When digging or

For detailed information on identifying invasive plants in the region, and info on the Central Kootenay Invasive Plant Committee, visit www.kootenayweeds.com

cutting invasive plants, wear gloves and long sleeves because some of these plants, like spotted knapweed, Scotch broom and yellow flag, contain irritants.

Once removed, dispose of these plants responsibly in the landfill where they go to seed or if in flower or seed, cut the seed heads off and bag them before removing them to the landfill where they accept invasive plants free of charge, in both the Regional District of Kootenay Boundary and Central Kootenay.

Composting is another alternative, however it is not recommended for all species, especially those that propagate from root fragments or seed quickly when in flower. Your compost needs to reach temperatures of 50 C to 70 C to kill off seed and

most home composts don't have enough mass to reach such high temperatures.

Contained burning in a fire pit is an effective method of destroying invasive plant matter as well, if it is allowed in your area.

Please do not dispose of yard waste anywhere but in your own yard or at your area landfill, and take some time to read about methods of weed control and more detailed information about identification of invasive plants in this area at the Central

Kootenay Invasive Plant Committee website: www.kootenayweeds.com

For more information, call 352-1160 or toll free

HOMES & GARDENS

Kootenay Invasive Plant Committee website: www.kootenayweeds.com

For more information, call 352-1160 or toll free

—submitted

Invasive milfoil has made its way into Kootenay River

Eurasian watermilfoil (*Myriophyllum spicatum* L.) has been a troublesome aquatic invader in British Columbia since the 1970s, impacting waterways in the Okanagan and elsewhere.

Unfortunately, a recent survey funded by the Fish and Wildlife Compensation Program and Fortis BC, confirmed that this aquatic invader has made its way into the Kootenay River system.

Thick mats were detected in the Kootenay River and plants were also found at several locations in Kootenay Lake.

The problem is that this non-native, immersed rooted perennial aquatic plant spreads rapidly and forms dense canopies of vegetation.

These thick beds of tangled stems can interfere with recreational activities such as boating, swimming, fishing, and diving, and can also alter the ecology of a water body by reducing water quality, impacting fish and wildlife habitat and killing native plants.

It is found in a variety of habitats including lakes, ponds, reservoirs, rivers and streams and can tolerate a wide range of environmental conditions. It is especially well adapted at colonizing new areas and even small fragments, such as those trapped on engine propellers or recreational vehicles, can start a new infestation, and once it is established it is nearly impossible to eradicate.

In an effort to educate the public and prevent the spread of Eurasian watermilfoil, the Central Kootenay Invasive Plant Committee, along with project partners including the Fish and Wildlife Compensation Program, BC Ministry of Environment, and Fortis BC have developed informational signs that were installed earlier this summer at several boat launches throughout the area.

The goal of the signage is to inform the public about the problem, provide details on how to identify the plant and to prevent the spread by encouraging people to clean all recreational equipment including boats, trailers, motors, anchors, live wells, bilges, bait buckets, fishing and diving gear.

It can be somewhat difficult to tell the difference between the native milfoil species and the Eurasian invader, but a good rule of thumb is that generally Eurasian watermilfoil has between 12-24 pairs of thread-like leaflets; where as the native milfoils have less than 12 pairs of leaflets.

Early detection of this invasive plant is critical, so if you think you may have seen Eurasian watermilfoil, or would like more information, please contact the Central Kootenay Invasive Plant Committee by phone at (250) 352-1160 or e-mail at coordinator@kootenay-weeds.com. People can also visit the website at www.kootenayweeds.com



Anneli Schadeli (left) and Claire Schadeli (right) pose for this picture during the installation of the sign letting the public know about the Eurasian Watermilfoil.

Barb Houston photo

Divers also clear milfoil from Christina Lake

FROM PAGE 1

From a canoe, program supervisor David Caswell ensures the divers' safety by following them around the edge of the lake.

Four months of the year is spent at Christina Lake, where the milfoil has a much stronger presence. This year, 470,000 plants were removed and last year, 430,000 were pulled from the lake.

"Just like a forest's plant community is important, so is the eco-community in lakes," said Caswell of the value of the program.

He has spent about four months under water during the five years he's devoted to the initiative.

In partnership with University of British Columbia and the Canadian Association of Underwater Science, he is now looking into bio-control options.

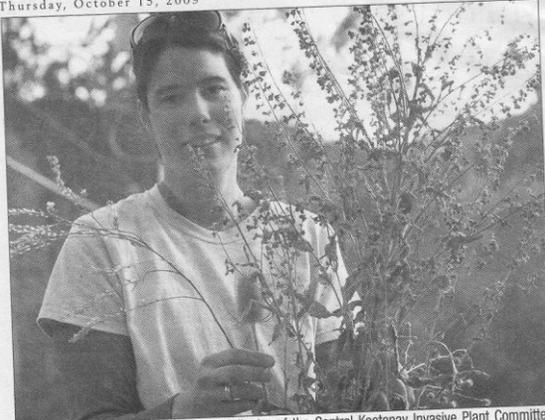
The group will return next year to do another cleaning but boaters and swimmers should be checking their water gear to ensure they're not transporting invasive plants back into B.C.'s lakes.



VALERIE SCHILLACI PHOTOS

Hailey Troock, 24, is one of the two divers who removed Eurasian milfoil from Champion Lakes. David Caswell keeps an eye out on the divers from his canoe.





WEED EATER — Eva Cameron co-ordinator of the Central Kootenay Invasive Plant Committee shows off some of the invasive plants (Fullers Teasel, Himalayan Blackberry and Hoary Alyssum) found near Rossland. Trevor Kehoe

Group tackles problem at roots

TREVOR KEHOE
Trail Rossland News Reporter

It was a busy summer again for the Central Kootenay Invasive Plant Committee (CKIPC), working at keeping unwanted foreign weeds from taking over native plants in the area.

Invasive plant species are the second largest contributor to extinction of species next to development and many citizens are unaware of the consequences that can occur if foreign plants are able to take over vast areas of land.

"Educating people is the biggest thing for us along with prevention, co-ordination



SNAPSHOT — Meghan McAllister takes inventory on some invasive plants near the Redstone Resort in Rossland.

out native plants and in turn kill much of the plants that feed our lo-

fers no dumping fees. "Herbicides are not used much in the area

on said the faster these weeds are dealt with the less money it will

in the long run. Foreign weeds from taking over native plants in the area.

Invasive plant species are the second largest contributor to extinction of species next to development and many citizens are unaware of the consequences that can occur if foreign plants are able to take over vast areas of land.

"Educating people is the biggest thing for us along with prevention, co-ordination and physically working at getting foreign species out of the area," said Eva Cameron, co-ordinator of the CKIPC.

"The sooner we can spot the invasive plants and take action the better chance the native plants have to survive."

Cameron said foreign species are highly competitive and, with no natural predators, spread rapidly over large areas.

These plants choke



SNAPSHOT — Meghan McAllister takes inventory on some invasive plants near the Redstone Resort in Rossland.

out native plants and in turn kill much of the plants that feed our local wildlife leading to a domino affect on our ecosystem.

Cameron has organized more than 10 community pulls with over 100 volunteers helping rid local areas of foreign species in the Trail and Rossland area alone.

She said invasive plants cannot be composted or dumped at other locations because they end up spreading their seeds there. The RDKB accepts plant waste for free and of-

fers no dumping fees. "Herbicides are not used much in the area which is a good thing, but it also makes a perfect environment for these weeds to grow," said Cameron who has a horticulture background from Capilano University.

"People are understanding more about this issue now than 10 years ago, but there's still lots of work to be done."

One of the largest 'Rush Skeletonweed' infestations in B.C. occurs in the central Kootenays and Cameron

on said the faster these weeds are dealt with the less money it will cost in the long run.

Priority lists are made each year grading what plants pose the biggest risks and action plans and funding forms are generally completed in the winter months.

Volunteers are always welcomed to tackle invasive weeds in your area. For more information on the CKIPC and invasive weeds in the Central Kootenays check out www.kootenayweeds.com.

Local Groups Can 'Pull' Together for Cash

By Contributor
Created 2009-07-09 01:29



Tansy, Yellow flag iris, Scotch Broom, Teasel, Policeman's helmet and the list goes on. Not a shopping list, or a roll call, or a recipe for a magic potion, these resilient, foreign interlopers squeeze out our valuable, native plants in the competition for water, soil, and light.

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Anyone can become involved. Previous participants have included Stream keepers, garden and trail's clubs, rod and gun clubs, community service and arts groups, church groups, etc. It's a wonderful way to promote stewardship, encourage a family activity, and raise money for your community group.

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Eva Cameron-Coordinator
Central Kootenay Invasive Plant Committee
(250) 352-1160
www.kootenayweeds.com
coordinator@kootenayweeds.com

Support for the "Community Pulling Together" program comes from the Columbia Basin Trust, Fortis BC and the Fish and Wildlife Compensation Program.

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[2] <http://www.kootenayweeds.com/>

Effective Disposal of Invasive Plants

By Contributor
Created 2009-06-08 21:03



Spring has sprung and so have those tenacious invasive plants, popping up in your garden. People have introduced a number of plants to this area as cultivated ornamentals which have jumped the fence to neighbouring yards and alleys to then move on to colonize forests, grasslands and wetlands. As pretty as some of these plants are, because they arrive in Canada without their natural predators to keep them in balance, they can spread rapidly, forming dense patches over huge areas causing irreversible impact to ecosystems, agriculture and even man made structures. Around the world, invasive species are considered the second largest contributor to the loss of biodiversity (e.g. extinction of species), next to the loss of habitat.

Japanese knotweed (*Fallopia cuspidatum*) and Giant knotweed (*Polygonum sachalinense*) which people commonly call Bamboo in the Kootenays, can damage rock walls, concrete paths and foundations with their massive spreading root systems are nearly impossible to contain or remove once they are established. Concern over knotweed has been mounting around the world as more and more native habitat is being lost to this plant, particularly in riparian areas where it is taking over habitat and causing soil erosion.

If you wish to rid your garden of invasive plants and control the spread of them, care must be taken with their handling and disposal. When digging or cutting invasive plants, you may wish to wear gloves and long sleeves because some of these plants, like Spotted knapweed, Scotch broom and Yellow flag iris contain irritants. Don't pass along divisions or seedlings of invasive plants like Japanese knotweed, Yellow flag iris (*Iris pseudacorus*) or Policeman's helmet (*Impatiens glandulifera*) to friends or neighbors, you are just passing on a problem.

Since many invasive plant species are prolific seeders (Purple loosestrife can produce up to 2.5 million seeds per plant), it is very important to deal with them before they go to seed or if in flower or seed, to cut the seed heads off and bag them before removing the rest of the plant. Some of these species also reproduce by sprouting from their root systems, so when pulling or digging care must be taken to remove all of the root.

Once removed, disposing of these plants is relatively easy, but it is important to do so responsibly in order to not spread them to new areas. Keep them separate from your other yard waste by bagging them and taking them to your local landfill, where they accept invasive plants free of charge in both the Regional Districts of Kootenay Boundary (RDKB) and Central Kootenay (RDCK). Composting is another alternative, however it is not recommended for all species, especially those that propagate from root fragments or seed quickly when in flower. Your compost needs to reach temperatures of 50-70° C to kill soft seed and most home composts don't have enough mass to reach such high temperatures. Contained burning in a fire pit is an effective method of destroying invasive plant matter as well, if it is allowed in your area.

Please do not dispose of your yard waste anywhere but in your own yard or at your area landfill, and take some time to read about methods of weed control and more detailed information about identification of invasive plants in this area at the Central Kootenay Invasive Plant Committee website: www.kootenayweeds.com If you have questions, please call us at (250) 352-1160 or toll free to the Invasive Plant Council of BC at 1-888-WEEDSBC.

-contributed by Eva Cameron

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KOOTENAY WEED INVASION! Help Stop the Spread of Eurasian Watermilfoil and Hoary Alyssum

By Contributor
Created 2009-08-18 22:54



by Barb Houston

Eurasian watermilfoil (*Myriophyllum spicatum* L.) has been a troublesome aquatic invader in British Columbia since the 1970's, impacting waterways in the Okanagan and elsewhere. Unfortunately, a recent survey funded by the Fish and Wildlife Compensation Program and Fortis BC, confirmed that this aquatic invader has made its way into the Kootenay River system. Thick mats were detected in the Kootenay River and plants were also found at several locations in Kootenay Lake.

The problem is that this non-native, immersed rooted perennial aquatic plant spreads rapidly and forms dense canopies of vegetation. These thick beds of tangled stems can interfere with recreational activities such as boating, swimming, fishing, and diving, and can also alter the ecology of a water body by reducing water quality, impacting fish and wildlife habitat and killing native plants. It is found in a variety of habitats including lakes, ponds, reservoirs, rivers and streams and can tolerate a wide range of environmental conditions. It is especially well adapted at colonizing new areas and even small fragments, such as those trapped on engine propellers or recreational vehicles, can start a new infestation, and once it is established it is nearly impossible to eradicate.

In an effort to educate the public and prevent the spread of Eurasian watermilfoil, the Central Kootenay Invasive Plant Committee, along with project partners including the Fish and Wildlife Compensation Program, BC Ministry of Environment, and Fortis BC have developed informational signs that were installed earlier this summer at several boat launches throughout the area. The goal of the signage is to inform the public about the problem, provide details on how to identify the plant and to prevent the spread by encouraging people to clean all recreational equipment including boats, trailers, motors, anchors, live wells, bilges, bait buckets, fishing and diving gear.

It can be somewhat difficult to tell the difference between the native milfoil species and the Eurasian invader, but a good rule of thumb is that generally Eurasian watermilfoil has between 12-24 pairs of thread-like leaflets; where as the native milfoils have less than 12 pairs of leaflets.

Early detection of this invasive plant is critical, so if you think you may have seen Eurasian watermilfoil, or would like more information, please contact the Central Kootenay Invasive Plant Committee by phone at (250) 352-1160 or e-mail at coordinator (at) kootenayweeds.com . You can also visit their website www.kootenayweeds.com [2]

Horse Owners Beware of Toxic Weeds

Hoary alyssum (*Berteroa incana*) is an invasive weed species that has been introduced from Eurasia in "wildflower" seed mixes and is quickly spreading throughout the West Kootenay, particularly in the Fruitvale, Harrop-Procter, and Lower Arrow Lake areas. This plant is commonly found growing in closely grazed pastures, drought-stressed meadows (particularly alfalfa fields), abandoned fields, and along roadside edges. Hoary alyssum is well adapted to dry conditions, particularly in areas with sandy to gravelly soils. Due to the recent extreme temperatures and lack of rain this summer, this plant is flourishing. Hoary alyssum is toxic to horses, both when fresh and dried in hay, and can remain toxic for up to 9 months. Though it is not preferred horse forage, horses will nibble on it when other plants are not available due to overgrazing and/or drought. Horses

buying hay, be sure to thoroughly examine all bales for presence of Hoary alyssum and other Invasive plant seeds. It is often very difficult to see this plant once dried, and as little as 30% of Hoary alyssum in one bale of hay may cause signs of toxicity in horses.

Toxicity symptoms in horses range from depression to "stocking up" (swelling in the lower legs), which generally occurs 12 to 24 hours following ingestion of hoary alyssum in hay or on pasture. A fever, short term diarrhea and abortions in pregnant mares, have also been observed. These clinical signs normally subside 2 to 4 days following removal of the Hoary alyssum source. In more severe cases, an apparent founder with a stiffness of joints and reluctance of the animal to move has been observed. Recovery of animals with clinical evidence of founder may take several additional days. Some horses are extremely susceptible to the toxin, and consumption of Hoary alyssum may prove fatal.

Key identifying traits

- * Flowers are white with 4 petals, deeply divided
- * Usually only branched at the top of the plant
- * Leaves are alternate, blades are simple, gray green in colour and coarsely textured to the touch
- * Fruit is oblong, with two compartments containing 2 to 6 seeds
- * Seeds grow close to stem, are round to oblong, narrowly winged, grayish-brown and rough

Minimizing problems with Hoary alyssum begins with good pasture management and controlled grazing. When this weed is found in an established pasture, hand-pulling/cutting followed by bagging and/or herbicide use are good containment strategies which should be completed before seeds ripen and spread. These plant seeds do not carry on the wind, so an awareness of it and early control can go a long way in reducing its spread. Seeds disperse primarily in contaminated hay and are often spread by vehicles, equipment, and footwear. Ensure that vehicles, equipment, footwear and clothing are free of seeds when leaving an area where Hoary alyssum is established. Taking steps to decrease transfer and ensuring that your hay and pastures are not contaminated with Hoary alyssum will go a long way in meeting the Central Kootenay Invasive Plant Committee's (CKIPC) priority of containing the spread of this toxic invasive plant. Please contact us for more information about invasive plants at www.kootenayweeds.com, or call us with your questions: 250-352-1160 or call the Invasive Plant Council of BC (IPCBC) at 1-888-weedsbc

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[2] <http://www.kootenayweeds.com>

Appendix 2: Summary of Work Completed by the IPCBC “Hot Spot” Crew.

| Site Location | Target Species | Proposed Work (inventory or treatment: Manual, Mechanical, or Chemical) | Jurisdiction |
|--|----------------------------|--|----------------------------|
| All road systems with susceptible habitats | All Species, YS | Inventory | MoTI |
| Salmo main and forestry roads | FS, HA, BW | Treatment - Manual | MRD, MOT |
| Salmo main and forestry roads | FS, all species | Inventory | MoTI, MOFR |
| Highways and secondary roads | TC, HA, YI (known), PL | Inventory | MoTI |
| All main highways Central Kootenay | TC, HA, YI (known) | Treatment - Manual | MoTI |
| Main highways Central Kootenay | IM, BY, PT | Inventory | MoTI |
| Main highways Crawford Bay to Riond | HI | Treatment – Manual | MoTI |
| Main highways Central Kootenay | HI, CT | Inventory | MoF, MOE |
| Creston and Wynndel | TS | Treatment - Manual | MoTI |
| Kokanee Creek Provincial Park | ME | Inventory | PP |
| Main highways Central Kootenay | All species HA, HI, IM, TC | Inventory | MU/MOTI |
| Syringa Provincial Park | BL, HI, | Treatment - Manual | PP, MOE |
| Kokanee Creek Provincial Park | SB, HA, BL | Treatment - Mechanical | PP, MOE |
| Blaylock and Hwy 3A sites | PL | Treatment - Manual | RDCK; HYDR |
| Creston Reserve lands | all species | Inventory | First Nation Creston Reser |
| Mel Deanna Pond-Castlegar | YI | Treatment - Manual | MoFR |
| Bird Creek Marsh-Blewett | YI, PL, SB, RS | Inventory | BC Hydro |
| Bird Creek Marsh, Kootenay Canal -Bl | YI, SB | Treatment – Manual | BC Hydro |
| Thrums area | YI, SB, HI, IM | Inventory | MRD/ MoTI |
| Thrums area | YI, SB, HI, IM | Treatment – Manual | MRD |
| Kootenay lake boat launches | EW | Education-signs installed | MRD, Crown |
| Rossland | PT, HA, TS, SB, ST | Treatment – Manual | MRD, Muni |
| Creston Valley Wildlife Management | YI | Treatment – Manual | Protected |

| Jurisdiction Breakdown | | | People Reporting |
|-----------------------------------|---|---|---|
| Jurisdiction | Approximate proportion of time spent in each jurisdiction | Approximate number of hectares inventoried and or treated in each jurisdiction | Number of crew members who had valid Pesticide applicators tickets on the crew |
| Ministry of Forests and Range | 15% | 30 | 1 |
| Ministry of Agriculture and Lands | 0% | 0 | |
| Ministry of Environment- BC Parks | 15% | 15 | |
| Ministry of Transportation | 55% | 227 | |
| First Nations | 0% | 0 | |
| Federal Parks | 0% | 0 | |
| HYDRO (Bonnington Gen. Station) | 5% | 3 | |
| Others (Municipality) | 10% | 40 | |