

Wetlands Update



The Newsletter of the BC Wildlife Federation
Wetlands Education Program

Spring 2014

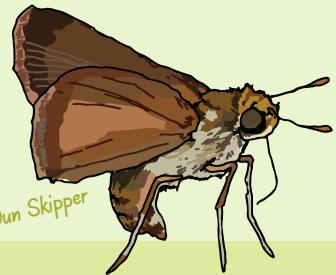


The 2013 Wetlands Institute took place from August 18-24, in Salmo, Castlegar and Passmore.

West Kootenays Wetlands Institute

Thirty-one participants representing a wide breadth of conservation groups, government agencies, and consulting firms joined us from across the West Kootenays to attend a seven day, intensive workshop on wetland restoration and stewardship. In partnership with the Village of Salmo and members from the Nelson Rod and Gun Club, participants constructed a wetland in KP Park, a green space in the heart of Salmo, BC. The wetland increases Salmo's green infrastructure by acting as a storm water retention pond and provides habitat to a variety of wildlife species. A historical wetland complex was also restored at Tulaberry Organic Farms in Passmore. The outlet was stabilized and several pools were added to the wetland to enhance wildlife habitat complexity.

Participants received guidance and support for their own wetland projects through technical training, planning theory, and field experience by renowned trainers. Many plan to apply their newly acquired wisdom and skill sets to improve upon their own projects in wetland restoration and stewardship. Training included invasive species removal with the Central Kootenay Invasive Plant Council, bird monitoring with biologist Janice Arndt, and aquatic invertebrate sampling with Dr. Brian Heise (Thompson Rivers University). The Institute also contained a slew of wetland-related presentations and workshops focused on law, grant writing, bioengineering, forestry, and landowner communication.



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Wetlandkeepers Courses

These two-and-a-half day, hands-on workshops educate participants about wetland conservation and provide them with technical skills to steward their own wetland. Each course is uniquely tailored to the host community, and topics such as wetland classification and mapping, soil sampling, vegetation surveys, and wetland services are part of the basic structure. In 2013 BCWF hosted three different Wetlandkeepers courses around the province.



The group becomes engrossed in examining invertebrates they found in Phillips Lake. BCWF makes great use of new microscopes.

A Lakeside Approach

The first Wetlandkeeper course of 2013 was held in partnership with the Chase & District Fish & Game Club. With a special focus on lakeside wetlands, this workshop was centred around Phillips Lake near Chase and its extensive southern wetland complex. Participants were fortunate to hear from a number of unique speakers, such as Kirsten Harma, the Program Coordinator of the Lake Windermere Ambassadors, who discussed how wetlands tie into lake management plans. Marge Sidney from the Ministry of Environment explained the history of fisheries and invasive species in Phillips Lake. A presentation was made on the importance of wetlands to fish species by Thompson Rivers University (TRU) Professor Dr. Brian Heise, who also led an aquatic invertebrate sampling and identification exercise. Another TRU professor, Steve Joly, taught participants the proper techniques for wetland bird surveys out in the field.



Largest Wetlandkeepers Course Ever!

In partnership with the Slocan Lake Stewardship Society, Slocan Lake Research Centre, and the Slocan River Streamkeepers Society, we integrated BCWF's first-ever Bioblitz (Biological surveys that attempt to map as many species as possible in a short period of time). With amphibian, bat, butterfly, invertebrate, and plant specialists working around the clock, we managed to catalogue over 150 species at Bonanza Marsh and Hunter Siding Wetland. In addition to participating in surveying many of the above species, participants learned about Sensitive Ecosystem Mapping from Ryan Durand of Durand Ecological and about the CABIN protocol for sampling invertebrates from the Slocan River Streamkeepers Society.



An adult Western Toad, a blue-listed species in BC, is identified by specialist Jakob Dulisse, during the amphibian survey in New Denver.

A Grand Time

For our final Wetlandkeepers course of the year BCWF headed to Boothman's Oxbow in Grand Forks. Biologist Lisa Tedesco led the group on an amphibian search where the eighteen participants learned identification tips and put them to use in an encounter with a Columbia Spotted Frog, a Pacific Chorus Frog, and a Western Toad. Productive discussions were held at the nearby Selkirk College where many local organizations including the Christina Lake Stewardship Society and the Kettle River Management Advisory Committee were represented. Graham Watt of the Regional District of Kootenay Boundary made a presentation on the watershed management plan that is in development for the Kettle River.

Map Our Marshes



Unless wetlands are mapped, they could go unrecognized and become inadvertently destroyed. Map our Marshes is a one day crash course that educates individuals in the value and tools of community mapping. Participants learn the step by step approach to mapping wetlands and their important features using GPS. They are also taught how to upload this data to Google Earth and the BC Wetlands Atlas. This information will help communities identify conservation needs at a wetland or watershed scale. Not only can this data be shared publicly with other stakeholders, but it is the first step to help conserve wetlands. In 2013, we held six Map Our Marshes workshops around the province: at Burnaby Lake, Shawnigan Lake, Kamloops, Passmore, Peachland and Duncan.

The first Map Our Marshes of the season was held in partnership with the **Burnaby Lake Park Association**. Eighteen participants ventured around the beautiful Burnaby Lake wetlands to practice their GPS skills and learn about the value of this urban oasis and its changing topography. The lake itself would be a large marsh and shallow water complex if not for dredging, and is home to a carefully monitored population of endangered Western Painted Turtles.

A condensed version of the workshop was taken to the renowned **Shawnigan Lake School**, where two mini Map our Marshes were held for members of the Environmental Science class, Environmental Club and an Outdoors Club. A total of twenty-eight students, teachers, and locals were given GPS units to use outdoors. They divided into two groups, stepped into their waders and braved a muddy marsh on the school property. Students mapped the perimeter, inflow and outflow of the school wetland before heading indoors to place the tracks onto Google Earth. Everyone was quick to absorb almost a day's worth of information in only three hours!

In **Kamloops**, our workshop was held at Thompson Rivers University where an on-site wetland acted as the field location for a small group of eager participants who plan to map local wetlands for conservation.

A special training session was held in **Passmore** for ten committed members of **SWAMP** (The Slocan Wetland



A participant wades through the rushes and past the swallow nest boxes at Burnaby Lake, GPS in hand.

Assessment and Monitoring Project), a new initiative that has come out of past Wetlandkeeper and Wetland Institute courses in the region. Durand Ecological and BCWF worked together to tailor the course and specialize wetland assessment forms for the Slocan Valley.

BCWF partnered with the **Peachland Sportsmans Association** to bring a course to thirteen participants, many of whom were active members of BCWF clubs. Hunters and anglers are a valuable resource to wetland mapping initiatives through their connection with the land and outdoor recreation. Furthermore, they often own GPS units. Ecoscape Environmental Consulting, a leader in mapping wetlands with their innovative work in Kelowna, also attended and spoke with participants of future partnership opportunities for mapping in the area.

A highly educated and passionate group of twenty participants gathered at a small urban park wetland in **Duncan** for the final Map our Marshes course of the year. The course was held with the assistance of the Cowichan Valley Land Trust.

Youth Restoring Wetlands

Stewart Creek Food Forest Wetland Yarrow Eco Village, Chilliwack

Go Wild!: Youth for Conservation is the new youth leadership workshop from BCWF. It strives to inspire future environmental stewardship through engaging hands-on activities that teach youth leadership skills and how to spearhead local conservation projects. One such activity was assisting in the construction of a small liner wetland at the Yarrow EcoVillage in Chilliwack. After a short presentation on the importance of wetlands, their disappearance from the area, and methods of restoration, seventeen youth grabbed shovels, rakes, buckets, mallets, and knives to turn a dusty pit into a thriving mini-ecosystem.

The youth experienced a number of steps first-hand, including removing sharp objects from the pit; raking it smooth; cutting, placing, and anchoring the liner; covering it with fresh soil, and then planting a number of native species. Though the work was physically demanding, it was satisfying to see what could be accomplished in a single day with helping hands and a bit of elbow grease. The local ducks certainly appreciated it, and were exploring the wetland within minutes of it being filled with water.

Kinnaird Elementary Outdoor Classroom Castlegar

In collaboration with the Castlegar and District Wildlife Association, BCWF constructed a 40 x 40 foot liner wetland at Kinnaird Elementary school in Castlegar. Thirty-seven 7th grade students participated by diligently removing boulder-sized rocks, placing the very heavy 500lb liner, planting over 700 plants, and landscaping natural benches.

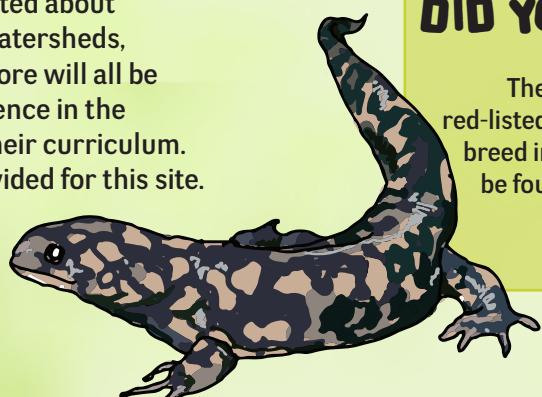
The wetland will provide an outdoor classroom where students can become engaged and excited about learning. Food webs, the water cycle, watersheds, soil sciences, art classes, botany and more will all be enhanced with direct, hands-on experience in the wetland as teachers integrate it into their curriculum. An interpretive sign has also been provided for this site.



BCWF Youth Facilitator Katie Hikida (right) and two participants show off their enthusiasm while anchoring the liner for the constructed wetland at Yarrow Eco Village in Chilliwack.



A class is taken outside for some hands-on wetland construction at the Kinnaird Elementary School in Castlegar. Here the BCWF guides the group in removing rocks before the liner is installed.



DID YOU KNOW...

The Blotched Tiger Salamander is a red-listed species that needs wetlands to breed in. In BC, this amphibian can only be found in Okanagan, Similkameen & Kettle River Valleys, and in the Kootenay Trench.

Planning for the Future

After the success of our first-ever Planner's Workshop in Squamish during the 2012 season, BCWF decided to incorporate more workshops aimed at bringing multiple agencies, stakeholders, and levels of government together to discuss the future of wetlands in their respective areas and develop strategies to protect and restore them.



A full house at the Wetland Symposium meant productive dialogue.

Wetland Symposium, Winlaw

This meeting featured economic, cultural, social, and environmental interests to plan future projects and goals for watershed conservation in the Slocan Valley. Key stakeholders in the valley, including a number of speakers, decided to form the Slocan Wetland Assessment and Monitoring Project (SWAMP) with the aim to map all of the wetlands in the Slocan Valley watershed to identify and prioritize sensitive ecosystems that may require restoration or protection. An open house with keynote speaker Lee Hesketh from the BC Cattleman's Association attracted forty-eight local residents.

Planner's Workshop, Castlegar

Representatives from the Kettle River Water Management Plan, West Coast Environmental Law, and City of Kelowna spoke at this workshop focused on informing planners on ways they can incorporate wetland protection into their policies. The workshop was attended by participants representing three regional

districts, several municipalities, and a few NGOs.

Wetland Workshop for Municipalities, Vancouver

This workshop targeted municipal and regional staff in Metro Vancouver to strengthen the region's capacity to secure wetlands as green infrastructure for the benefit of ecological and human health. Seventeen participants representing seven municipalities and regions attended. The Stanley Park Ecological Society used this opportunity to vet the opinions of participants in regards to the management of Beaver Lake, which is slowly filling in.

Okanagan Wetlands Strategy Workshop, Kelowna

In collaboration with the Okanagan Basin Water Board and the Regional District of the Central Okanagan, BCWF embarked on an ambitious initiative to develop a wetland strategy for the Okanagan. The strategy incorporated public surveys to identify priorities among various user groups, the coalition of numerous wetland maps into one repository, as well as a public open house featuring break out sessions and presentations to the community. These initiatives will help identify priority sites and focus conservation actions when resources are limited.

Lower Mainland Wetlands Declaration

The BCWF is proud to be part of the newly created Lower Mainland Wetlands Declaration. We have partnered with the David Suzuki Foundation, World Wildlife Fund Canada, South Coast Conservation Program, and Ducks Unlimited with the aim of:

"Protecting 100 percent of the remaining wetlands in British Columbia's Lower Mainland from further loss and degradation, and restore at least 10 percent of our lost wetlands before 2030."

Wild Kidz Camp

The Wild Kidz Camp is a free, week-long summer camp that strives to educate children about the practices and importance of wildlife and environmental conservation. Through fun, hands-on outdoors activities, the lucky twenty-five children who attend learn about the interrelated dynamics of ecosystems. By providing a real life connection with nature, we ensure children will return home with experiences and memories to last a lifetime.

In 2013 we held two Wild Kidz Camps in the province. Both camps featured a number of similar activities like good old-fashioned camp games (relay races, Dragon Dodge-ball, Capture the Flag, Zombie, Kickball, Blindfold Soccer, Man Hunt, etc) as well as educational modules that taught children about BC mammal skulls and furs, bear safety, native plant species, and food chains. Both groups also experienced exciting activities like shooting targets, archery, nature painting, building bird houses, scavenger hunts, and swimming.

Wild Kidz Goes North!



Wild Kidz Camp participants show off their deluxe birdhouses, outfitted with details such as wooden shingles! These were built with the help of Jim Wiebe & Cliff Gardener of the Kitimat Rod and Gun Club.

In partnership with the Kitimat Rod and Gun Association, the BCWF held it's first Wild Kidz Camp: the farthest North a Kidz Camp has ever been held.

In addition to the above activities, children were lucky enough to visit Giant Spruce Tree park (home of the largest living spruce tree in the province) and the Kitimat River Hatchery where they learned about salmon life

cycles, their biology, and made fish prints to take home. Back at camp, they were allowed to make custom fishing jigs. Local trapper Mike Langegger also demonstrated trapping techniques and how to board a beaver pelt.

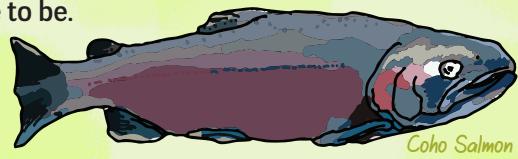
Outdoor Culture in Chase



In Chase, the Fish and Game Club taught kids to fish, with some successful results!

BCWF's second Wild Kidz Camp of 2013 was in partnership with the Chase & District Fish & Game Club. Activities unique to Chase included swimming and fishing at Little Shuswap Lake, as well as learning about invasive species. Children received a strong dose of the outdoors through a packhorse camping demonstration. Kamloops Search and Rescue also visited and made sure participants knew what to do if ever lost in the woods. Other survival skills taught throughout the week included knot tying and how to use a compass.

A visit to the Adams River Salmon Society's interpretative centre taught children about salmon survival rates. This was followed by a traditional story by representatives of the Sepwepemc (Shuswap) Nation. The children learned about the coyote, how the bear lost its tail, and how salmon came to be.



Youth Outreach



Squamish River Estuary

In partnership with the Squamish River Watershed Society, BCWF Wetlands Education Program manned two booths to teach approximately five hundred young students about the Squamish estuary. Its importance to hundreds of bird species, mammals (even whale!), fish, plants, and insects was quickly understood by even the youngest of participants by using a powerful food web activity.

Our new interactive watershed model engaged children first-hand on the effects of development on how water moves through a landscape. Water poured down the “natural watershed” moves slower, does not flood, and comes out more clean than in the “fully developed watershed”. This simple activity demonstrated the importance of a balanced landscape.

Raft River School Interpretive



BCWF Wetlands Intern, Christine Cooper, uses the new watershed model to teach students about wetland health at an outreach event.

Program, Clearwater

BCWF returned for a second year to the Raft River Interpretive School Program to provide support to the Simpcw Nation. Nearly four hundred students from North Thompson Valley schools including Raft River Elementary, Blue River Elementary, Vavenby Elementary, Clearwater Secondary School and Neqweyqwelsten School attended over the three days.

Students ranged from Kindergarten to Grade 11, and each group learned according to their previous knowledge base. Some simply grasped the concept of a watershed and wetland, while others were asked to suggest ways

to lessen human impacts of those systems. Many groups also learned about aquatic invertebrates like giant water beetles and backswimmers. Older students also received training on how to sample aquatic invertebrates in the Raft River.



BCWF Wetlands Assistant, Jason Jobin, shares some Pacific Chorus Frogs with children at the Murrayville Wetland on Arbour Day.

Community Arbour Day, Langley

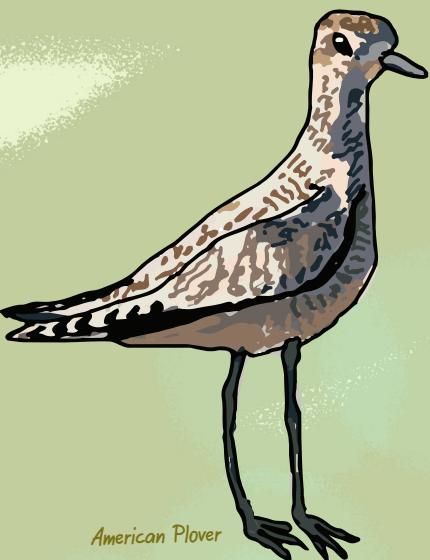
Alongside the Langley Environmental Partners Society (LEPS), the BCWF participated in Community Arbour Day in Murrayville by hosting tours of the now-thriving Murrayville Wetland (restored in 2012 by LEPS and the BCWF).

Children played with dip nets in the wetland (some were lucky enough to catch frogs!) while adults were recounted the site’s history and how it was transformed from a field of invasive species to a home for Pacific Chorus Frogs, waterfowl, native plant species, and more. Local neighbours were also invited to plant sedges, rushes, and grasses around the wetland. Approximately eighty people toured the wetland and learned about its importance in the landscape.

A Year of Celebration!

In 2013, The WEP celebrated World Wetlands Day (February 2nd) and World Rivers Day (September 28th) at the New Westminster Quay. In partnership with Canadian Freshwater Alliance, Watershed Watch, and World Wildlife Fund we celebrated World Water Day (March 22nd) at the Vancouver Public Library.

A Space For “Wetworking”



American Plover

The BCWF Bog Blog

www.bcwfbogblog.com

A multi-layered website set up to share wetland steward experiences and knowledge on how to protect BC's remaining bogs, fens, marshes and swamps. It also features links to resources that might suit people who are monitoring and conserving wetlands. Furthermore, it has a growing list of featured stewards and educators within the Wetlands Education Program. Wetlandkeeper and Wetland Institute alumni are also encouraged to share their work.

Get involved in 2014

Wetland Institute
Eastern Vancouver Island
September 6-12

Wetlandkeepers
Cumberland April 11-13
Rossland May 23-25
Duncan June 20-22
Prince George June 20-22
Kitimat/Terrace September 2-4

Map Our Marshes
Vancouver
Langley

Wild Kidz Day Camps
Dawson Creek July 14-18
Peachland August 11-14

Restoration Workshop
Meadow Creek May 30-June 1

Working Group Workshop
Grand Forks June 3

For more information, or to make a donation, contact:
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Ducks Unlimited Canada
Conserving Canada's Wetlands



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The BC Wildlife Federation is a province-wide voluntary conservation organization of hunters, anglers and outdoor recreationalists, representing all British Columbians whose aims are to protect, enhance and promote the wise use of the environment for the benefit of present and future generations.