

A Space For “Wetworking”

The 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 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.

Wetland Education Program Flickr

www.flickr.com/photos/bcwfwep

An online photo gallery open to the public through Flickr. Please visit the BC Wetlands Photo Group and consider sharing your treasured pictures. Who knows, they may get selected as our feature photo!

Feeling social?

“Like” our BCWF Wetlands Education Program Facebook page and “Follow” us on Twitter. [@BCWFWetlands](https://twitter.com/BCWFWetlands)

These projects were undertaken with the financial support of:
Ces projets ont été réalisés avec l'appui financier de:



Laura L. Tiberti Charitable Foundation

The BC Wildlife Federation is a province-wide voluntary conservation organisation 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



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Wetlands Update



The Newsletter of the BC Wildlife Federation's
Wetlands Education Program

Spring 2016



Wilmer Slough, an internationally recognized portion of the Columbia River Wetlands, played host to a Wetlandkeepers Workshop in 2015.

Wetlands Program Grows, Despite Drought

With some areas of BC reaching the highest provincial drought rating in 2015, the importance of wetlands cannot be understated. By storing water during wet periods and slowly releasing it during drier ones, wetlands are essential for aquifer recharge and mitigation against climate change. In these dry periods wetlands can act as a safe haven for plants and animals alike.

Unlike the shrinking water supply, the BC Wildlife Federation's Wetlands Education Program (WEP) continued to grow in 2015. Over 520 people participated in a WEP workshop (compared to 362 in 2014) and an additional 1245 individuals were engaged through educational booths and interactive activities. Some events, such as the Wetlands Institute (pg. 2) and Kelowna Wetlandkeepers (pg. 3) even had twice as many applicants as could be accommodated.

Other successes include 130 government staff, conservationists, and other stakeholders attending a Working Group Workshop held in Burnaby: the largest turn out for such a workshop in WEP history (pg. 5). In 2015 alone WEP contributed to the restoration of more than 10 wetlands in Meadow Creek, Salmo, Kelowna, and Vernon. See inside to learn more about WEP's 2015 programming.



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Mark your calendars!

A Space For “Wetworking”

Keep up to date with our “Bog blog” and more



Wetlands Institute



Participants at Kathleen Lake, an Alkaline Wetland

Did you know that in the Okanagan, wetlands cover only about 0.2% of the landscape? Unfortunately, it is estimated that over 84% of low elevation wetlands within the Okanagan and Similkameen Valleys have been lost to development. Between 1988 and 2012 alone, 38% of wetlands in the Okanagan Basin were lost. With such startling numbers, it is no surprise that the Okanagan was chosen for the 2015 Wetlands Institute.

Thirty-five participants representing a wide range of government agencies, conservation groups, consulting firms, educators, and more gathered in **Kelowna, Winfield, and Vernon** for the annual Wetlands Institute. This intensive, week-long, hands-on workshop focused on restoring, enhancing, and protecting wetlands.

Unlike previous years, both wetland restoration projects took place on private land. The first was on Curly Frog Farm in Kelowna. Due to changes in water management upstream, one of Curly Frog Farm's fields became inundated to the point of being unusable for crops. By excavating wetlands and using the spoils to create drier, higher ground, habitat and farming land were created simultaneously. The unique project will be used as a demonstration of sustainable development.

The second project restored a wetland in an ephemeral ditch in Vernon. Due to sediment infilling as well as poor clay compaction, the area did not hold water long enough to provide high ecological value. By removing and recompacting the clay on site, it was possible to create a clay liner wetland to hold water and provide significant ecological lift. The Radies

Wetland was restored in partnership with the Okanagan Collaborative Conservation Program, and Okanagan Similkameen Stewardship Society

In addition to assisting with the above restoration projects through planning, design, and planting, participants learned about bird banding, landowner contact, stormwater wetlands, grant writing, alkaline wetlands, aquatic invertebrates, wetland legislation, and much more.

As always, a bevy of experts were brought in for participants to learn from. There were guest speakers from the Centre of Wetland & Stream Restoration, Okanagan Basin Water Board, Ministry of Forests Lands and Natural Resource Operations, Canadian Wildlife Service, Golder and Associates, Kettle River Watershed Plan Coordinator, En'owkin Centre, and Thompson Rivers University.

After the institute, participants are trained to complete wetland projects in their communities. The 2016 Wetlands Institute will take place in the Lower Mainland.



Participants Planting the New Curly Frog Farm Wetlands

Outreach Education



Students walk into the Squamish Estuary to learn about aquatic invertebrates and wetland ecology

World Wetlands Day

The Wetlands Education Program joined the Semiahmoo Bay Fish and Game Club for their annual World Wetlands Day celebration in **Surrey**. Participants learned about the club's conservation efforts, as well as the importance of wetlands.

Squamish Field Outreach Days

The 2015 theme for the Squamish River Watershed Society's Outreach Days was "Estuary Alive!". BCWF collaborated with the group by teaching approximately 600 students grade 2-6 about the unique estuarine habitat. At the BCWF station, students learned first-hand about the wonderful world of aquatic invertebrates.

Kitsilano Kids get a Wetland Education

The children of Lord Tennyson's Out-of-School Care Program had a jam-packed afternoon with the Wetlands Education Program. They were able to smell bog moss during a wetlands presentation, see how water reacts in impacted vs non-impacted environments with an interactive model, touch a beaver skull after a mammal presentation, play games that taught ecosystem balance, and construct their own mini wetlands from natural materials.

World Oceans Day in Surrey

Over 100 people visited the Wetlands Education Program booth during the World Ocean's Day Celebration at **Blackie Spit**. Approximately half of the visitors participated in the wetland scavenger hunt, where they learned the history and values of wetlands. Our ever-popular, interactive, 3D watershed model made a return, demonstrating how an unbalanced landscape could lead to an unhealthy ocean.

World Rivers Day on the Fraser

As part of the Fraser River Discovery Centre's World Rivers Day celebration at the **New Westminster** Quay, BCWF hosted a booth containing animal skulls and a new, giant Wetland Species at Risk popup. Using natural materials like clay and moss, children were able to construct model wetlands for a chosen animal, such as a moose or salmon. Over 200 people visited the booth over the course of the day.



Wild Kidz Camps



Wild Kidz jumping for joy in Windermere.

The Wild Kidz Camp is a free, week-long summer day camp that educates children about the practices and importance of wildlife and environmental conservation. Each summer, at least 50 children learn about the interrelated dynamics of ecosystems through fun, hands-on outdoors activities. By providing a real life connection with nature, we ensure children will return home with experiences and memories to last a lifetime.

Both Kidz Camps featured a number of similar activities like good old-fashioned camp games and activities (“Foxes and Hares”, scavenger hunts, “Rabies”, animal charades, nature walks, etc) as well as educational modules that taught children about BC mammal skulls and furs, predator-prey dynamics, and native plant species. Both camps also took part in exciting activities like fishing, shooting .22s, archery, nature painting, swimming, and interactive presentations by local Conservation Officers.

Wild Kidz in Windermere

BCWF partnered with the Lake Windermere District Rod and Gun Club to host an action packed camp in the East Kootenays.

In addition to the above activities, 26 children were engaged in presentations on outdoor survival skills, wildlife in BC Parks, and wildfire safety. They were even fortunate enough to witness a horseback archery demonstration. Other hands-on activities involved creating plant presses, saddling



Participant learns how to shoot a bow.

horses, learning to use compasses and GPS units, building their own bird houses, canoeing on the Columbia River, and trap shooting with shotguns.

Playing in Prince George

BCWF’s second camp was held in partnership with the Spruce City Wildlife Association to create lasting memories for 26 children.

Activities unique to this camp included dissecting owl pellets, kayaking, horseback riding, birding, an invasive species pull, and a visit to the local fish hatchery and Prince George Exploration Place. There were also presentations on wildlife collaring and trapping, bear safety, and invasive species.



Wetlandkeepers Courses

These two-and-a-half day, hands-on workshops educate participants about wetland conservation and provides them with technical skills to steward their own wetlands. 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 2015 BCWF hosted five courses around the province.



Quesnel Wetlandkeepers Participants at West Fraser Timber Park

Opening with the Okanagan

Our first wetlandkeepers of the year featured site visits to Maude-Roxby Bird Sanctuary, Kathleen Lake, Thomson Marshes, and the Winfield Nature Reserve in the Kelowna region. Notably there was a waiting list of 27 people to attend! The Ocelo Fish and Game Club, Okanagan Basin Water Board, and the Ministry of Forests Lands and Natural Resource Operations (FLNRO) were partners for this workshop.

Wetlandkeepers in the Columbia Wetlands

In partnership with the Lake Windermere District Rod and Gun Club and the Columbia Wetlands Stewardship Partners, the Radium Hot Springs Wetlandkeepers took advantage of the beautiful Columbia Wetlands, one of the largest intact wetlands in North America. Guest speaker Rachel Darvill introduced a new waterfowl monitoring program that has since successfully recruited over 50 volunteers in its first year.

Wetlands abound in Quesnel

The unique Quesnel landscape allowed participants to experience a rare learning opportunity: nearby access to all five major wetland classes (bogs, fens, marshes, swamps, and shallow open water). Held in partnership with FLNRO, this workshop also featured birding with the Quesnel Birding Club and amphibian sampling with E. Wind Consulting. This workshop was instigated by a participant of the 2014 Wetlands Institute.

Smithers’s Star Status Biologists

True to reputation, Smithers is a hotbed for environmentally-minded academics. Participants and speakers alike were highly respected in their various fields, leading to a rich learning experience for all those involved. For example, Jim and Rosamond Pojar (known for their botany among other things) taught participants about wetland plants, wetland birds, and dragonflies. This workshop was held in partnership with the Bulkley Valley Rod and Gun Club and consulting firm Environmental Resource Management.

Prince Rupert Focus on Estuaries

This workshop focused on estuaries: a wetland system that is rarely explored in detail during Wetlandkeepers due to its unique, brackish water ecosystem found only along the coast. The World Wildlife Federation spoke to participants about local estuaries and the development pressures they are facing.



Four Spotter Skimmer seen during the Quesnel Wetlandkeepers

Map our Marshes

Map our Marshes is a one day crash course that educates individuals in the value and tools of community mapping. Participants are also taught how to upload important GPS 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. Unless wetlands are mapped, they could go unrecognized and become inadvertently destroyed. In 2015, the BCWF held Map our Marshes courses in Fernie, Creston, and Duncan.

Supporting Future Initiatives

In partnership with the Elk River Alliance and the College of the Rockies, the first Map our Marshes workshop of the year was hosted in **Fernie**. Participants traveled to Maiden Lake, a complex of wetlands partially created by beavers, to learn how to map wetlands. The workshop was held in part to support an initiative to map wetlands in the Elk River Valley. To further this, BCWF will be hosting a Working Group Workshop in the area in 2016.

Hands-On Learning for Fernie Youth

In 2015 the BCWF Annual General Meeting was held in Fernie. To launch the Youth Program, 17 young BCWF members attended a condensed Map our Marshes workshop at a Ducks Unlimited wetland on BCWF member Aaron McDonald's property. Youth learned why wetlands were important and how they can use GPS technology to protect them. As a bonus, they received a lesson in wetland aquatic invertebrates and participated in a geo-caching game. Prizes were awarded to the winners.

Training in the Cowichan Valley

To support a growing initiative to map wetlands in the Cowichan Valley, the BCWF partnered with the Cowichan Land Trust to host a workshop in **Duncan**. In addition to training, the workshop also included discussions on how to further develop the participants' initiative to connect landowners to a western toad study tracking seasonal movements between habitats.



Coordinator Neil Fletcher passes around a soil sample

Mapping the Creston Valley Wetlands

Participants joined BCWF in the beautiful Creston Wildlife Management Area for the **Creston** Map our Marshes. Originally part of a 70km stretch of wetlands in the Creston Valley, the 7,000-hectare management area is habitat for hundreds of wildlife species. BCWF partnered with The Eastshore Freshwater Habitat Society for this event.



Participant using a GPS unit to map a wetland in Creston

BC Wetland Atlas Update

The BC Wetlands Atlas on the Community Mapping Network has undergone changes to allow for more data to be gathered and better coincide with provincial standards. This information will help communities identify conservation needs at a wetland or watershed scale.

To see the BC Wetlands Atlas on the Community Mapping Network, please visit the website: cmnmaps.ca/WETLANDS/

Planning for the Future



Over 130 stakeholders participated in the Lower Mainland Working Group Workshop.

In 2015, the Wetlands Education Program has expanded its workshops aimed at bringing multiple agencies, stakeholders, and levels of government together to discuss the future of wetlands in their respective areas. One key outcome is the identification of knowledge and resource gaps which is crucial in advancing strategies to protect and restore wetlands. In addition, BCWF continued to be involved in wetland policy initiatives on the municipal, provincial, and federal scale.

Conservation Workshop for Southern Vancouver Island Stakeholders

The first workshop of 2015 brought 42 professionals with representatives from 6 municipalities and 4 regional districts together in **Nanaimo**. Three break-out discussions involved 1) municipal and regional tools and requirements for protecting wetlands, 2) storm water management and wetlands, and 3) access to financial resources for wetland projects. Speakers included representatives from the Partnership for Water Sustainability in BC, Environmental Law Centre, E Wind Consulting, and the Institute of Applied Ecology.

Strengthening Capacity & Collaboration in the Lower Mainland

Held in **Burnaby**, this workshop boasted a staggering 130 attendees: the highest numbers of any Working Group Workshop in the history of the Wetlands Education Program. Government workers, non-profit organizations, conservation groups, academics, experts, and a wide variety of other stakeholders were present to discuss the future of wetlands in Metro Vancouver. Guest speakers from Ducks Unlimited Canada, the Elk River Alliance, the South Coast Conservation Program, and various municipal representatives stimulated discussions during break out sessions designed to strengthen and foster collaboration among attendees.

Okanagan Working Group Workshop

Held in **Vernon**, this workshop focused on creating watersheds through wetland conservation. Guest speakers were from the Okanagan Basin Water Board, Ministry of Forests Lands and Natural Resource Operations, and the stormwater management field. These discussions provided context for a field visit to Marshall Fields where urban retention wetlands were being created.