

A Space For “Wetworking”



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Upcoming Workshops in 2019

Wetlands Institute

West Kootenays:
September 30– October 6

Wetlandkeepers

Cumberland: May 3-5
Kamloops: June 14-16
Rossland: July 12-14
Cawston: July 17-18

Map our Marshes

Tsay Keh Dene: June 4-5
Kwadacha: June 6-7
Mcleod Lake: June 10-11

Wetland Roundtable & Conference

Cumberland: May 10-11

Consider following our social media to stay up to date!

Dates and locations are subject to change

For more information, or to make a donation, contact:

604-882-9988 ext 232
wetlands@bcwf.bc.ca



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

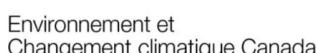
The Bog Blog
www.bcwfbogblog.com

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. Wetlandkeepers and Wetlands Institute alumni are also encouraged to share their work.

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TD Friends of the Environment Foundation



Wetlands Update



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

2019 Edition



BCWF and FLNRO team up to assess wetlands in cutblocks (Photo: Lisa Nordin)

Forestry Enters the Fold

The Wetlands Education Program continued to extend its reach in 2018 by partnering with The Ministry of Forests, Lands, Natural Resource Operations & Rural Development (FLNRORD) to develop a new wetland assessment protocol for the Forest Range and Evaluation Program (FREP).

FREP is a program designed to assess the impact of forestry and range development on values (ex. cultural heritage, fish habitat, recreation), and inform best practices and policy. Some values, such as stream health, have been surveyed for over a decade, while wetlands remained unmonitored. BCWF helped create a new wetlands protocol and hosted workshops in **Kamloops**, **Smithers**, and **Fort St. James** to train FREP professionals on its use. BCWF also introduced the new FREP form during Wetlandkeepers Workshops to collect additional feedback.

Working on FREP was just one of the few projects the Wetlands Education Program worked on in 2018. Continue reading to learn about other 2018 projects and what workshops may be coming to your area in 2019.

In This Issue

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A 7-day workshop on Salt Spring Island Wetlandkeepers

Stewardship courses in Nanaimo, Vancouver, Mackenzie, and more

Map our Marshes

Learning how to map small wetlands with GPS units in Peachland, Kamloops, and Salmo

Wetlands Outreach

Hundreds of BC residents learn about wetlands at schools and events

Restoration, Past and Present

Restoring new wetlands and evaluating our past projects

Workshops in 2019

Mark your calendars!

A Space For “Wetworking”
Keep up to date with our “Bog blog” and more



The Wetlands Institute



Institute participants in front of a wetland at Blackburn Lake, which was restored in 2014

With a thriving farming community, rich First Nations history, and strong sense of environmental stewardship, Salt Spring Island is a unique place in British Columbia. It is also home to the Blackburn Lake Wetland Restoration Project, which made it the perfect venue for our 2018 Wetlands Institute participants.

Our flagship workshop, the Wetlands Institute accepts applicants from across the province who have wetland projects in their respective communities and provides them with the skills necessary to complete them. A portion of this training was delivered by 11 experts from various fields. Just a few of the topics covered included:

- *History of Wetland Drainage in North America*
- *Wetland Plant Identification*
- *Wetland Archeology*
- *The Xwaaq'um Project*
- *Invasive Species Management*
- *Community Engagement*
- *Amphibian ID, Biology, and Design Considerations*

A main attractant for many participants is the workshop's commitment to hands-on training, including multi-step involvement in wetland restoration projects. Participants are able to participate in site assessments, complete detailed restoration designs, work with heavy machinery, and execute erosion and invasive species prevention management. The 2018 Wetlands Institute included the restoration of two wetlands on private land, as well as design work at other sites around the island.

The 2019 Institute will take place in the West Kootenays.

Did you know?

Due to development, agriculture, and forestry, wetland ecosystems account for only 1.7% of the East coast of Vancouver Island and adjacent Gulf Islands like Salt Spring Island.

Restoration: Past & Present



Top: Overview of restoration work near Newgate,

Middle: Metamorph found at a 2014 project,

Bottom: Installing logs during restoration near Creston

For the past few years, the Wetlands Education Program has increased its Wetland Restoration efforts and 2018 was no exception. Across 16 sites, BCWF was able to contribute to almost 30 hectares of restored habitat. Two restoration initiatives are described below.

From Farm to Wetland

With flat, open landscapes, rich soil, and access to water, wetlands were prime locations for settlers to grow crops (with a bit of drainage, of course). Many of these farms are now unprofitable due to flooding, invasive species, or a change in practices. With heavy machinery, BCWF is able to return some of this land to its former wetland state, often while improving the remaining farmland to create win-win situations. In 2018 this was done in **Kimberly**, **Newgate**, **Cache Creek**, and other areas of BC.

Creston Area Returns to its Roots

Wetlands in the Creston region were restored in 2018 through a diversity of partnerships. Stream and wetland habitat were restored at **Erickson Elementary** (which will be an invaluable learning tool) while the **Lister Creek** headwaters were restored in partnership with the Regional District of Central Okanagan. Finally, a multi-year restoration project was initiated with the **Yaqan Nukiy Band** to support wildlife and remove invasive species.

Past Project Checkup

With specialized funding from Habitat Conservation Trust Foundation, BCWF was able to visit 33 past restoration projects going back to 2010. Soil, water, and vegetation communities were studied to determine if the young wetlands were functioning as designed and on the proper trajectory. Though results are still preliminary, aquatic vegetation is doing well with higher rates of native species compared to nearby reference sites. In 2019, biologists will return to those same wetlands to complete wildlife surveys.

We look forward to learning which birds, amphibians, and mammals are using these sites.

Outreach & Education

In addition to training adults, the Wetlands Education Program attends events, hosts public talks, and visits schools to teach the public (especially kids!) about the benefits of wetlands. In 2018, we reached almost 1200 people at events like **Flashlight Mysteries** in Delta, where people learned how invasive species can harm wetlands. Continue reading to learn about some other events.

Squamish Field Outreach Days

For the 6th year, BCWF participated in this phenomenal outreach event, which led over 500 elementary school students through various stations to teach them about the interconnectedness of all life within the Squamish River Estuary. BCWF's learning station demonstrated how beavers are an important keystone species (and may have involved some dress-up too!)

Nature Knowledge Festival Returns

2018 marked the second time BCWF has organized this event as part of Surrey's Environmental Extravaganza. By partnering with other groups, Nature Knowledge Fest was able to reach 140 students in a single day! Children were encouraged to classify live water bugs, identify mysterious animal calls, match birds with their varied beaks, and even do detective work on mock animal "kill sites".

WEP Could Visit Your Classroom!

The Wetlands Education Program (WEP) has developed a variety of resources to bring to the wetland to you! Animal masks, watershed models, real skulls and pelts, and maybe even some live invertebrates can be used to teach students of all ages about the importance of wetlands. As WEP travels across the province, we may be coming to a community near you!

Contact wetlands@bcwf.bc.ca for more details



Top: In Squamish, students learn about beaver adaptations, Bottom: Kids play "Wetland Jenga" during the Surrey Environmental Extravaganza



Top Left: Using a rod and laser level for wetland design, Top Right: Participants identifying wetland vegetation, Bottom: Supervising the excavator restoring a wetland in a farm field

A Brief History of the Blackburn Lake Wetland Restoration Project

The Blackburn Lake Wetlands acted as an outdoor classroom for the Wetlands Institute whether it be for early-morning birding or a place to identify plants but the site wasn't always home to wetlands. Read a bit about its past below.

1850-2012 The land around Blackburn Lake was logged, drained, farmed, and even became an organic golf course!

2013 Salt Spring Island Conservancy (SSIC) acquired the property. BCWF, SSIC, and wetland restoration specialists host a public open house to promote wetland restoration. They later visit the site and design a number of wetlands.

2014 The first wetland is restored by SSIC and planted with hundreds of native plants

2015-2017 Additional wetlands continued to be restored each year, creating a growing wetland complex

Wetlandkeepers Courses



Left: Learning amphibian sampling methods in Vancouver, Right: Moberly Lake participants learn about wetland restoration

In 2 to 2.5 days, these 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, mapping, soil sampling, and vegetation identification are part of the basic structure.

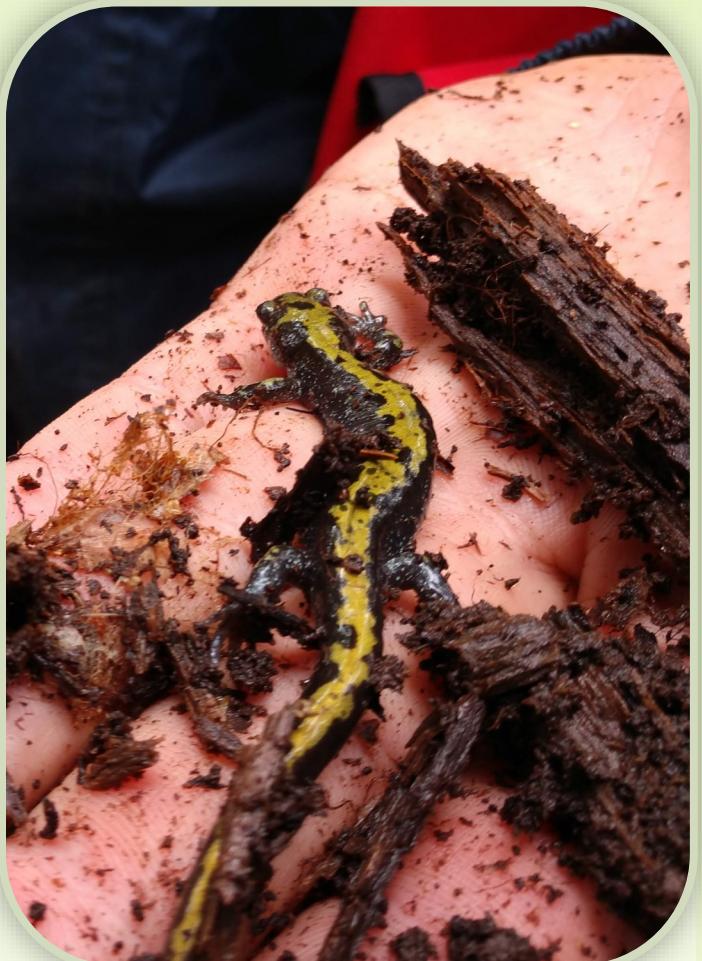
Hitting close to home

The **Vancouver** Wetlandkeepers was jam-packed with bird surveys, amphibian sampling, and restoration design at the Jericho Beach wetland. There was a special focus on urban wetland issues such as invasive species and how beavers can affect infrastructure. The **Nainaimo** Wetlandkeepers focussed heavily on stewardship and a number of local wetland research and mapping initiatives.

Bringing Training North

Through new partnerships with First Nations and other organizations, the Wetlands Education Program was able to bring training to several more northern communities where free workshops and professional development are harder to access. **Fort St. James, Moberly Lake, Mackenzie, and Tsay Keh Dene**

residents received training on special topics such as wetland restoration design, amphibian sampling, and moose inventory.



Long-toed Salamander found during amphibian sampling in Mackenzie

Map our Marshes



Left: Learning how to texture soil in Peachland, Right: Participant happily classifying wetland in Salmo

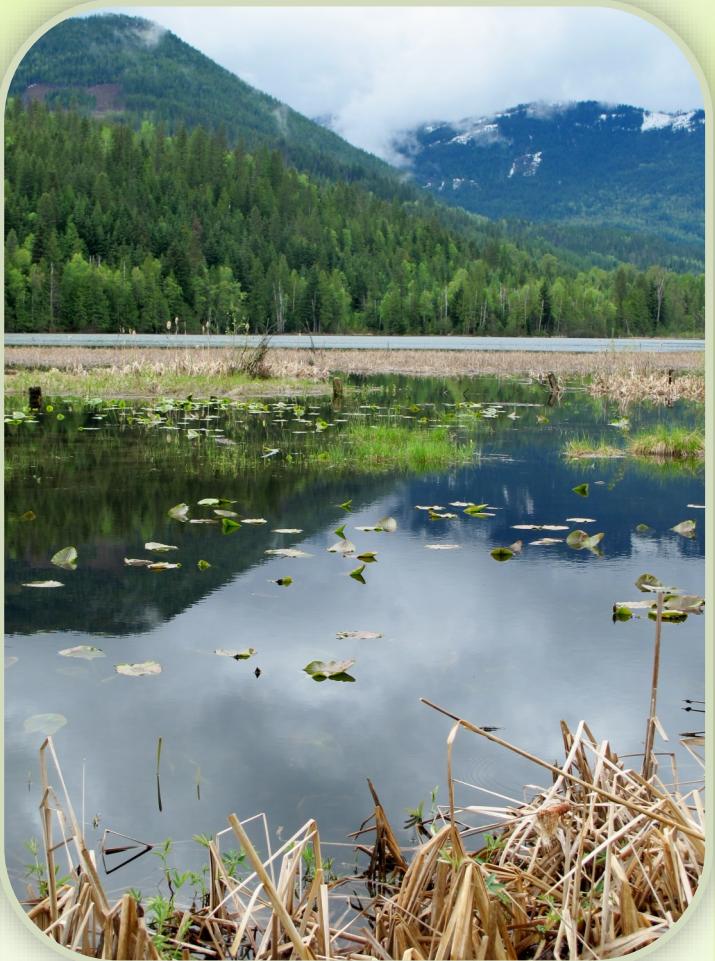
Map our Marshes is a 1-day crash course that teaches the value and tools of community mapping. Participants are also taught how to upload important GPS data online. This information will help communities identify conservation needs at a wetland or watershed scale. Not only can this data be shared publicly with other stakeholders, but it is the first step to help conserve wetlands. Unless wetlands are mapped, they could go unrecognized and be inadvertently destroyed.

Kicking It Off in Kamloops

Our first Map our Marshes of the year was packed with high-calibre participants from local First Nations, BC Parks, consultants, FLNRO, and landowners. This made it the perfect stage to debut the draft wetland evaluation form for the Forest Range and Evaluation Protocol (See cover for more details)

From Theory to Practice

Two workshops in 2018 were attended by gung-ho groups that immediately put their Map our Marshes training to use. The Peachland Watershed Protection Alliance began to map and classify wetlands in their area following a workshop in **Peachland**, while the Salmo Valley Seniors ATV Club created signage to protect wetlands near recreational trails after a workshop in **Salmo**.



Wetlands like these were classified and mapped during the Map our Marshes Workshops