

# Wetlands Update



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

2020 Edition



Planting upland and riparian plants at Earl Ranch in Newgate, BC. These plants will prevent soil erosion and become an important food source for elk and deer.

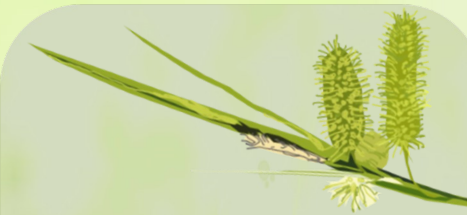
## Monitoring and Maintaining Past Restoration

The Wetland Education Program has completed several restoration projects over the years. Some of these restoration projects were finished during the Wetland Institute Wetlandkeepers workshops or through partnerships with landowners and government.

It's important to check on the work that's been done in the past to make sure the restoration project is coming along as it was planned. There's a lot of things that can change such as invasive plants taking over, or erosion making the banks unstable.

Maintaining a healthy native plant community provides food for several types of species, including deer and elk throughout the winter, shelter for hiding from predators, and breeding grounds for waterfowl, amphibians and turtles. Native plants also support the wetland by anchoring soil with their roots which prevents erosion and soil movement.

Following up restoration projects with monitoring and maintenance allows us to make the most of the hard work and time that's already been put into the wetland. This year, 5 restoration sites throughout the Kootenays were monitored and maintained; over 1000 live stakes (live plant cuttings) were placed, 3000 plants and saplings were planted, and an overall area of 5,500 m<sup>2</sup> was managed for invasive plant species!



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# The Wetlands Institute



Image of the Wetland Institute participants from one of the observation towers at Creston Valley Wildlife Management Area (photo credit: Hayden Baker)

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. The 17th Annual Wetlands Institute was hosted in two Kootenay communities: Creston and Rossland. The participants were diverse, coming from various backgrounds such as NGO, Municipal Government, Provincial Government, Environmental Consulting, and the Resource Industry. A portion of this training was delivered by 18 experts from various fields. Just a few of the topics covered included:

- *History of Wetland Drainage in North America*
- *Wildlife Monitoring, including invasive wildlife (e.g., American bullfrog)*
- *Community Engagement & Volunteer Mobilization*
- *Schoolyard Wetlands as an Educational Tool*
- *Restoration Monitoring*
- *Team Building Activities*
- *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 2019 Wetlands Institute included the restoration of two wetlands: The Hunting Grounds Restoration on Lower Kootenay Band land in Creston, and restoration at BC Parks' King George VI Provincial Park in Rossland.

Participants also visited a number of previously restored sites throughout Rossland, Creston and surrounding jurisdictions.

The 2020 Wetlands Institute will take place in Kamloops.

## Did you know?

**The Hunting Grounds project** is a first of its kind in British Columbia involving the restoration of **121 hectares (299 acres)** of floodplains, wetlands, streams, and rivers damaged by the construction of impoundments, dams, ditches, and installation of pipes and pumps.



Top Left: Participant learning survey techniques. Top Right: Eva Cameron and Robin Annschild talking with the excavator operator at King George VI site. Bottom: Wetland Institute participants removing watercress at Erickson Elementary School.

**Restoration projects visited during the 2019 Wetlands Institute:**

- Yaqan Nukiy Hunting Grounds Restoration** on Lower Kootenay Band reserve lands in Creston
- Yaqan Nukiy Floodplain Restoration** on Lower Kootenay Band reserve lands in Creston
- Lister Creek Spring Wetland Restoration** in Lister
- Erickson Elementary Schoolyard Wetland** in Erickson
- King George VI Provincial Park Restoration Project** in Rossland
- Centennial Park Wetland Restoration** in Rossland
- Jubilee Park Wetland Restoration** in Rossland

# Wetlandkeepers Courses



Left: Bedstraw hawk-moth spotted in-field. Middle: Aquatic vegetation ID in Rossland. Right: Kamloops participants learning about a Spadefoot toad, a local at-risk species.



A Wetlandkeepers participant getting her hands dirty during a soil sampling exercise.

Over 2.5 days, these hands-on workshops educate participants about wetland conservation and provides them with technical skills to steward the wetlands in their own backyards. 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 base structure of this course.

## Kootenay and Kamloops 'Keepers

In June and July the WEP team traveled to run two Wetlandkeepers workshops: in Kamloops and in Rossland in the Kootenays. Every workshop has a unique mix of participants across many backgrounds, and the WEP team was excited to welcome several Natural Resource Officers in the Kootenays looking to learn how to better protect wetlands. Being able to identify wetlands and assess their health is the first step to conserving and restoring these ecosystems in BC.

## Similkameen Valley

The WEP team hosted a unique Wetlandkeepers in Cawston with a focus on Ginty's Pond, a degraded oxbow wetland in the heart of the Similkameen Valley. Participants helped map out an area for proposed restoration.

## Roundtable and Conference in Cumberland

Alongside the Wetlandkeepers workshop in Cumberland in May, a 3-day event called The Cumberland Wetlands Conference occurred to increase awareness of the extensive, diverse, and beautiful wetlands that are such a large part of Cumberland's landscape.

# Map our Marshes



Left: Beautiful wetland in Tsay Keh Dene, Right: Pacific Tree Frog found by a participant

Map our Marshes is a 1-2 day crash course that teaches the value and tools of community mapping and inventory of wetlands. Unless wetlands are identified and mapped, they could go unrecognized and be inadvertently destroyed by agriculture, development, ranching, or invasive species.

## Supporting Remote Indigenous Communities

This year the WEP team focused on increasing the wetland stewardship capacity and training of remote indigenous communities. It can be difficult for remote communities to access training, so BCWF solved this issue by bringing the training to them. Training was offered to both Land Guardians and community members in Northern British Columbia, and Kwadacha Nation, McLeod Lake Indian Band, and Tsay Keh Dene Nation joined us this summer. The workshops provided hands-on training on wetland classifications, and how to conduct wetland health assessments. WEP was able to provide these communities with the resources and skills needed to identify, analyze, protect and restore the wetlands within their traditional territories.



Wetlands training conducted with the Kwadacha Nation focusing on classification and health assessments of wetlands

# Outreach & Education

In addition to training adults, the Wetlands Education Program attends outreach events, hosts public talks, and visits schools to teach the public (especially kids) about the benefits of wetlands. In 2019, we engaged almost 1000 children through school visits and educational events! Continue reading to learn about some other events.

## Squamish River Watershed Society Annual Education Program

For the seventh year, the BC Wildlife Federation Wetlands Education Program has taken part in Squamish's weeklong education program. Elementary students had the chance to explore four interactive stations that taught them about a salmon's life within the Squamish River Estuary. Over 600 kids got their hands wet during this year's theme, "Wild for Salmon", and learned about how estuaries are an essential part of the salmon's unique freshwater and saltwater life cycle.

## Chantrelle Creek Elementary

The BC Wildlife Federation partnered with the city of Surrey's Salmon Habitat Restoration Program (SHaRP) to deliver wetland education through a hands-on wetland education day for youth at Chantrelle Elementary School. Using a wetland next to the school, 60 students did a pond dip and learned about invertebrate species in wetlands and how to identify them.

### WEP Could Visit Your Classroom!

The Wetlands Education Program (WEP) has developed a variety of resources to bring 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](mailto:wetlands@bcwf.bc.ca) for more details



Top & Bottom: In Squamish, youth are learning about the importance of salmon, Middle: Chantrelle Elementary students looking for invertebrates,

# Restoration: Past & Present



Top & Bottom: WEP team members restoring a wetland at Xwaaqw'um, Middle: Wetland Restoration Specialist, Robin Annschild, surveying Sparrowhawk site

Alongside the restoration projects explored during the Wetland Institute, the Wetlands Education Program continued to work on wetland restoration projects throughout 2019. Across 7 sites, BCWF was able to restore almost 70 hectares of wetland and floodplain habitat across BC for the benefit of wildlife and humans alike. Two restoration initiatives are described below.

## **Xwaaqw'um Wetland Restoration**

An exciting restoration project took place in Xwaaqw'um, (Burgoyne Bay) on Salt Spring Island, this year. Previously known as Burgoyne Bay Provincial Park, the WEP team in collaboration with BC Parks and the Cowichan First Nation, worked to restore a wetland in the area that had been ditched and drained for past agricultural use. Most of BCWF's restoration work is done with a focus on enhancing the area for wildlife. As an area that was both culturally significant to the Cowichan people and home to many archaeological sites, the wetland will be a valuable asset to community as well.

## **Return to Sparrowhawk Ranch**

The WEP team was fortunate to revisit Sparrowhawk Ranch to continue restoration work. Last year, BCWF restored 4.6 ha on this ranch in Kimberley BC, and this year BCWF returned to restore an additional 0.84 ha of wetland.

### **Did you know?**

Xwaaqw'um means "Place of the Female Merganser Duck" in Hul'qumi'num. As the name suggests, this area is significant to birds as it's a part of the Pacific Flyaway. Every year, migratory birds travel up to 70,000 km along the same path to find food, access breeding grounds or areas to overwinter at. This journey can take a long time, sometimes up to many months, and having stopover sites like Xwaaqw'um can help these birds reach their destination by providing food, shelter and resting spots along the way.

# A Space For "Wetworking"



[twitter.com/BCFWWetlands](https://twitter.com/BCFWWetlands)



[facebook.com/BCFWWEP/](https://facebook.com/BCFWWEP/)



[flickr.com/photos/bcwfwep](https://flickr.com/photos/bcwfwep)

## The Bog Blog

[www.bcwfobogblog.com](http://www.bcwfobogblog.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.

## Upcoming Workshops in 2020

### Wetlands Institute

Kamloops: September 21-27

### Wetlandkeepers

Galiano Island: August 7-9

Cranbrook: August 28-30

### Map our Marshes

Cumberland: June 16-17

Lakelse/Terrace: July 11-12

Crawford Bay: August 22-23

### Other Workshops:

Kwadacha: June 25-26

In light of COVID19, dates of 2020 workshops and initiatives are subject to change, please contact us or check our website for updates

Consider following our social media to stay up to date!

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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