

SQUALICUM CREEK GETS A SMOLT TRAP

BY: JADE JARVIS, CITY OF BELLINGHAM CREW MEMBER

Fish were on our mind even more than usual in February. We were ready to begin construction on one of the largest projects of the year. The plan was to build and install a smolt trap on Squalicum Creek to measure and record any and all fish moving up or down stream. Our main focus was Chinook salmon. After we completed final designs and gathered materials, we turned the shop into an assembly line and cranked out 23 wire mesh weir panels and 1 large smolt trap box, equipped with a removable divider and a muskrat escape tube. After 4 days of measuring, cutting, re-measuring, re-cutting, hammering, drilling, stapling, and painting, the gear was ready for Squalicum Creek.

The next step was preparing the area for such a large contraption.

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Completed smolt trap in Squalicum Creek.

Waders on and Pulaskis in hand, we excavated the areas to install weirs. We dug, swung, and chopped away at the creek bed. As you might imagine, swinging an axe under water is not the

driest of activities; yet despite being damp with the icy cold February waters, the hardest part of the installation was yet to come. Getting the box, (big enough to fit two average sized crew members with ease), down a steep 8-12 foot slope, was the real challenge. We lowered the giant box down the slope and into the creek with a handy pulley and rope system created by our own Edgar Marks-Franks. Once everything was in the creek, we installed the large downstream box for juveniles, an upstream box for adults returning to spawn, and weirs running to the banks of the creek to funnel all fish into our grasp. After a few more days of pounding t-posts, clamping pieces together, and sealing any holes with Visqueen and sandbags, we were finally

Cont'd. on p. 2

Smolt Trap, p. 1**Smolt trap box in progress.**

needed an accurate measurement and species identification before we could let the scarred beast continue downstream. After about 20 minutes of carefully wrestling this fish while trying not to stress or injure it any further, we were all fairly wet from the thrashing of its powerful caudal fin. However, the crew determined that it was most likely a Cutthroat Trout over 2 feet long. We did not anticipate anything larger than about 12 inches in the juvenile box and didn't have a large

**Moving weir panels into place.**

ready to start catching fish.

Our first few box checks resulted in small and colorful Trout, just a handful each day. The routine includes checking the boxes twice a day, (AM and PM) cleaning any build-up off of the weirs, recording air and water temperature, and of course identifying and measuring any trapped fish. On March 9, one of our crews began netting the juvenile box. The first few scoops came up empty, but with the next thrust of the net a monster was upon us. I was recording data from the shore as I saw a massive splash force the three other crew members to stumble back away from the box. Nelson Lee still had a hand on the net and Nicole Masurat and Andrew Budihas identified it as a massive salmonid with a decent sized gash in its side. We

needed an accurate

measurement and species identification before we could let the scarred beast continue downstream. After about 20 minutes of carefully wrestling this fish while trying not to stress or injure it any further, we were all fairly wet from the thrashing of its powerful caudal fin. However, the crew determined that it was most likely a Cutthroat Trout over 2 feet long. We did not anticipate anything larger than about 12 inches in the juvenile box and didn't have a large

enough measuring board for a fish this size. We improvised and placed our 5 foot long water depth stick next to the writhing Cutthroat to get our measurement (believe me,

we *underestimated* its length). We took a few dozen pictures as evidence and released the Trout along with a smaller buddy of his hiding in the bottom of the box.

Since our early March find, we have caught many more Trout, Salmon, Lamprey, and even a few Catfish. While we wait for Salmon and Muskrats to filter through our trap, we have a special crew out seining the shores of Bellingham Bay with members of the Skagit River Systems Cooperative. They will record all of the Salmon and other fish in the near shore habitat. I think it is safe to say that in the Bellingham area, no fish will go un-recorded.

**Crew Member Riley Thorpe and Supervisor Lyle Skaar survey the installation of the trap.**

SMOLT TRAP SNAPSHOTS



Weir panels funnel fish to trap.



View from above.



Checking the trap for fish.



Steelhead Trout.

"I think it is safe to say that in the Bellingham area, no fish will go unrecorded."

*-Jade Jarvis,
Crew Member,
City of
Bellingham*

ETHNOBOTANY: INTERVIEW WITH KAREN SHERWOOD, EARTHWALK NORTHWEST

INTRODUCTION AND INTERVIEW BY KATE LOWRY, CITY OF OLYMPIA CREW MEMBER

Kate Lowry attended the Ethnobotany Apprenticeship and Primitive Skills Apprenticeship at Earthwalk Northwest, which is owned and operated by Karen and Frank Sherwood. Karen currently teaches the Ethnobotany course at WCC Elective Trainings.

"Environmental stewardship can be just as nourishing to our individual lives and communities as it can be to the biodiversity and health of our forests, prairies, and streams."

*-Kate Lowry,
City of Olympia
Crew Member*

Have you been zapped by nettle while planting an Alder? Maybe you are planning a trip to the coastal kelp beds for your multi-vitamins and minerals? Are you inspired by the smell of Douglas Fir resin? There is a side to conservation and land stewardship that we do not experience when we are grubbing blackberries and counting bags of bare roots throughout the day to measure our progress.



Weaving berry baskets.

Environmental stewardship can be just as nourishing to our individual lives and communities as it can be to the biodiversity and health of our forests, prairies, and streams. This can be done by getting to know the edible, medicinal, and utilitarian uses of plants. Karen is a basket maker, wild foods gourmet chef, caretaker of gardens, medicine maker, teacher, and ethnobotanist. As a student of Karen's, I learned to interact with the environment not as a place to exploit resources, but as a garden to be caretaker of. It is an act of conservation, mindfulness, and respect to be in tune with the natural world as much as she is. Incorporating plants into our lives can be healing, entertaining, useful, challenging, and delicious. While carving out your career path working at WCC, remember you are as much a part of the community ecosystem as the salmon and the cedar.

Interview with Karen Sherwood:

1. How did you become an Ethnobotany teacher? How long have you taught?

My educational background is in botany. I studied both at Western Washington University and then the University of Washington, but my interest has always been there. I was fortunate enough to be hired immediately out of college to develop and teach the wild foods curriculum for a

leading wilderness survival school in this country. My teaching of plant studies started back in 1980. From teaching wild foods, my understanding of plants quickly expanded from edible to medicinal as well as utilitarian uses. Often times there is much overlap in these areas.

2. How does the knowledge of wild plants benefit the individual?

Our benefits of understanding wild plants are unlimited. I often times tell my students that no matter what your walk of life, to understand the plant life around you will benefit anyone. Certainly, we can use this plant knowledge for survival if we become lost in wilderness or are separated from our gear. There are incredible medicinal plants out on the trail that we can utilize for wilderness first aid. To know what plants we can use to make cordage or rope has come in handy for me personally more than once. Certainly, even in our every day life we understand that wild foods offer incredible nutrition, a fresh diversity as the seasons change, a fabulous source of free organic food, not to mention our connection with nature each time we go out.

3. How does it benefit a community? Environment? Wildlife?

I think that the more people understand how their lives can benefit from wild plants, the greater their interest is in preserving areas throughout their community. It means more green space for all when we understand the incredible benefits that lie in those wild places around us. By helping to maintain wildland areas, habitat for wildlife is maintained and healthy environments can be better preserved.

4. How is ethnobotany applicable to everyday life?

I think the first understanding is that ethnobotany is not only a knowledge of how people used plants historically, but ethnobotany is also how we use plants today. We are touched each and every day by plants.



Whole, chopped, and ground acorns.

Every time we go outside, we have the choice to harvest and invite these wild plants in as much as we wish to. I encourage my students to add wild foods to their diet each and every day. It keeps us connected, it invites an understanding of the changes that occur each season as we go out and look at what stages the wild plants are in. We have the opportunity to utilize some great healing plants for simple skin healing, pain reducing, and soothing qualities which they possess, whether we injure ourselves in the kitchen or on the trail.

5. What can a forager/wildcrafter do to help WA battle the invasive plants that destroy biodiversity of native species?

We have a favorite saying here, if you can't beat 'em, eat 'em. There are many invasive species that do have great qualities. For the forager to understand that we don't want to be spreading invasive species

"It [wild food] keeps us connected, it invites an understanding of the changes that occur each season..."
-Karen Sherwood

"Make yourself a commitment to learn one new plant each week."

*-Karen
Sherwood*

around, they do that pretty good on their own, but often times consuming them can be an answer. St. John's wort for instance, we harvest the flowers and flower buds before they bloom, and if we harvest all the flowers before they seed, those seeds won't be spread around. Japanese knotweed is another plant that is high up on the invasive list, it makes a great rhubarb substitute when harvested early. While we utilize these plants, it's important to understand that it's our responsibility to not spread invasive species to other areas, but perhaps we can make a bit of a dent.

6. What's your favorite native plant of Western Washington? Eastern Washington? Why?

I'm not sure I have a favorite plant, but in Western Washington one of the plants I interact with most is stinging nettle. It brings us that understanding of how multifaceted individual plants can be and how great their gifts are. Nettle, for instance, really epitomizes ethnobotany as it is a great wild food, has fabulous healing qualities, and is a tremendous utilitarian plant. There are so many Eastern Washington plants that I hold in high esteem, but some of my favorite harvesting times are when we dig Indian potatoes to make into a cream of potato and dandelion soup. I think mostly because the area that we harvest in is so beautiful, and invites a sense of calm and reverence. It is those times, out harvesting, that are most memorable for me.

7. What would be your advice to someone new to foraging and wildcrafting?

Start slowly. Understand that each and every one has the ability to learn all the plants that there are out there. Think about that all of us can go to the produce section of our grocery and identify a zucchini from a cucumber, red apple from a red tomato, and maybe even parsley from cilantro, even without looking at the label. Remember to use all of your senses, not just your eyes when identifying plants. Often times our sense of smell can be the key to identifying one species from another. Get a good book that allows you to positively identify plants, if you don't have somebody who can show you directly. Be smart, don't sample things you're not 100% sure of. Start with something in your own backyard, and after identifying it, bring it



Finished baskets

into your kitchen. Remember wild foods are full of vitamins, nutrition, as well as often times bold flavors. Go in with an open mind. And have fun. Make yourself a commitment to learn one new plant each week.

8. If you could say one thing to WCC Corps members, what would it be?

Follow your passion. Understand that everyone has the ability to learn all the plants that are out there. Don't be overwhelmed. Take it one step at a time. I've been studying and teaching for over 30 years now, and I am still learning things. It's always an adventure, always exciting, and I hope that I always will be learning new things. Again, make yourself a commitment to learn, and use, one new plant each week. By the end of the year you will have many great new experiences and have an intimate knowledge of plants that you will never forget.



Karen Sherwood and Jason Huntley (Padilla Bay Education IP), making cedar baskets at March training.

*"This world is but
a canvas to our
imagination."*

*-Henry David
Thoreau*

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*Please send your stories,
photos, and updates for
publishing to Maggie Counihan at
maggie.counihan@ecy.wa.gov*

WCC VIDEO CONTEST: WHAT DETAILS SHOULD I KNOW?

BY: LAURA SCHLABACH, OUTREACH AND DEVELOPMENT COORDINATOR

At March Elective Training, we launched a video contest within the WCC! This is a chance for everyone in the program to have fun telling the WCC story more visually. We're hoping to use some of these videos, or even sections of them, this summer to help recruit top-notch applicants for next crew year.

I'm interested in making a video, but where do I start? First, choose one of the following categories for your video: Instructional/How-To; Artistic/Creative; Day in the Life of a WCC Member or IP; Disaster Response/Emergency Preparedness; or Why You Should Join The WCC. Think about a specific task, project, or theme to feature in your video. Show us the proper way of planting a Western Red Cedar – or how to free a tree from the perilous branches of English Ivy. Give us a mini-tour of the beautiful places you work – from the Elwha to Ellensburg – but keep the camera steady so we don't feel queasy! Show us how to properly build a section of fence – or explain why each of your coworkers joined the WCC in the first place. The possibilities are endless.

What if I want to add music? You can – while keeping a few copyright laws in mind! You do not have to have permission to use a song in your video if the clip is less than 15 seconds. For clips longer than that, you have to have permission from the artist. However, music with Creative Commons Licenses is for general public use; the artists have granted their permission for anyone to use it. For websites with Creative Commons Licensed-music, try: [www.smartsound.com/Royalty Free Music](http://www.smartsound.com/Royalty-Free-Music) or www.freeplaymusic.com.

I am almost done editing my video. How do I submit it? Once you have imported your footage, embarrassed your coworkers by watching bloopers on repeat, and edited the best content with iMovie, Final Cut Pro or Windows Movie Maker (just to name a few programs), it's time to submit it! If you have Gmail, you can upload your under-3 minute video to YouTube, select the "unlisted" setting, and email the link to Laura.Schlabach@ecy.wa.gov. If you do not have Gmail, email Laura for an invitation to Dropbox. Feel free to send Laura any additional questions. Have fun!

*"Let us make our
future now, and
let us make our
dreams
tomorrow's
reality"
-Malala
Yousafazi*



A GUIDE TO CRUPINA: DO'S AND DON'TS

BY: MATT EVINGER, SEATAC/DNR URBAN FORESTRY CREW SUPERVISOR



DO:

Join a picking line next to Dave Coffey. One of the common names for Crupina vulgaris is "bearded creeper," after all.



Tumwater Spike Supervisor, Dave Coffey



DO:

Work is not the only time for uniforms. Pick a camp outfit as a crew and never listen to what anybody else says about it.



Zach McGill and Chris Reeder, Tumwater Spike Crew Members

"Nature is not a place to visit. It is home."

-Gary Snyder



DON'T:

Wear a rogue, non-WCC helmet. We get it, Bridget. You go rock climbing in the Alps and are stronger than all of us. But when your cubicle is ten feet from the tools and logistics coordinators, couldn't you get a real WCC hard hat?



Bridget Mason, Program and IP Coordinator

IP SPOTLIGHT: KRISTEN REICHARDT, KING CONSERVATION DISTRICT

BY: KRISTEN REICHARDT, KCD INDIVIDUAL PLACEMENT

Hello WCC Community! My name is Kristen and I'm an Individual Placement at the King Conservation District. I'm the Education Programs Coordinator, which basically includes anything education related. The conservation district helps landowners throughout King County, manage natural resources on their land in a sustainable way. My role is often introducing people to what KCD does and empowering them, to either make smart choices about managing their own property or to contact our other employees for free technical assistance. I get



King 5 interviews Kristen about her involvement in the 2015 Envirothon.

to be the "good guy (girl)" and teach people how to make a win-win situation out of beneficial property use and conservation.

My latest project has not been with landowners, but with high school students. At the last minute, I was tasked with planning the regional Envirothon. The Envirothon is a natural resource competition for high school students that requires hands-on skills —such as water quality testing or plant identification— and problem solving techniques, or presenting on a current environmental topic. Teams of 5 compete within their region and winners from each county move on to the state event. State winners then attend the national competition. It's been a really fun, diverse project full of asking people for favors, finding a date and venue (it felt like I was planning a wedding!), writing and editing tests, managing volunteers, coordinating teams, and trying not to forget all of those small details. On April 30, teams finally had a chance to show off their skills and vie for a spot at the state competition. Watching everything come together was so satisfying and fun.

I've had many chances to grow and be independent in this job - I feel like I've already learned so much in the quick 6 months that we've been a part of WCC. If you're interested in working on diverse and challenging projects, I would highly recommend the opportunity to anyone!



Students compete in the 2015 Envirothon.

"If you're interested in working on diverse and challenging projects, I would highly recommend the opportunity to anyone!"

-Kristen Reichardt, KCD IP

Photos courtesy of Kristen Reichardt

CAN YOU NAME THESE PLANTS?



A) _____

First Crew or IP to send in correct scientific names, will win some WCC Swag! Send answers to maggie.counihan@ecy.wa.gov



B) _____



C) _____



D) _____

*"Life is like riding
a bicycle. To
keep your
balance you
must keep
moving"*
-Albert Einstein



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PROGRAM UPDATES AND CHANGES



Walla Walla Spike Crew planting near the Tucannon River. Photo courtesy of Greg Dunbar.

Welcome, new supervisors and corps members! We added the following four 6-month crews in April and are excited to have them on board:

- Sultan/Reiter Foothills DNR Trails Crew: Supervised by Jennifer Briggs.
- Walla Walla Spike Crew: Supervised by Greg Dunbar.
- Port Angeles/Olympic National Park Crew: Supervised by Chelsea Krimme.
- Wenatchee Spike Crew: Supervised by Sam Neukom.
- Welcome to the three new IPs joining us in positions at Padilla Bay, Snohomish County Marine Resources, and Mid-Colombia RFEG!

Welcome to the following new supervisors:

- Leo Arias (Ellensburg Crew), Matthew Cone (North Yakima CD), Michael Franks (WDFW Forage Fish Crew), Jason Gurath (MTSGT Crew), Brennan Moores (Poulsbo/DNR Urban Forestry Crew), Josh Perry (Yakima Spike Crew), James van der Voort (Lake Stevens Crew).

Over the past few months, we also bade farewell to the following supervisors; thank you for your valuable work and leadership!

- Pat Boughton, Kris Buitrago, Jesse Debock, Russell Greer, Heath Kornegay, Aaron Lasha, John Longworth, Haz Reynosa, Meghan Turner, and Justin Zarzeczny. Recent backfills: Ashlie Arthur transferred to King County DNRP this month, and Phill VanKessel transferred to Lower Elwha Klallam Tribe Crew in February.

ABOUT THE WCC

The Washington Conservation Corps (WCC) was established in 1983 as a service program for young adults between the ages of 18-25. The WCC is offered through the Washington Department of Ecology and continues the legacy started by the Civilian Conservation Corps in the 1930s. The WCC has been an AmeriCorps program since 1994. Today, the WCC has around 300 members working on projects in every part of the state. Our partners include Federal, State, Local, and Tribal organizations. For more information please visit our website: www.ecy.wa.gov/wcc.