

# the REEDD



THE NEWSLETTER OF THE SKAGIT FISHERIES ENHANCEMENT GROUP

*Dedicated to Restoring Wild Salmon for Future Generations*

## Schooling Small Fry

By EMILY JANKOWSKI



*Evergreen students release coho salmon*

We often get asked, "where is the best place to find salmon?" And I finally have an answer: in a school of course! No, really. Through our Salmon in the Classroom program, seven area schools are raising salmon from eggs to fry. As Education Associate,

it has been my pleasure to work closely with teachers throughout this program, and now I'm thrilled to share a look inside with all of you!

Back in the fall, we spent a lot of time preparing students for their future salmon. First we taught about the salmon life cycle and habitat in class. Then we went on field trips to see local salmon streams. The mission we gave the students was to test if the streams are good salmon habitat. To be healthy, salmon need clear water with a neutral pH and at least six parts per million oxygen. I loved showing children that chemistry can be fun—even simple tests produce big changes in color. But even better was the plant walk, led by WSC Outreach Associate Keelin Maurmann. She always won students over with the opportunity



*West View students measuring dissolved oxygen*

to taste licorice fern and Indian plum, two edible native plant species. Many of our trips were cold and rainy, but it takes more than a little weather to stop science and by the end of the field trip, every student had learned something new about salmon and the environment.

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*Edison third graders exploring a salmon stream*

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**REDD:** A female salmon uses her tail to dig a nest in the gravel. After she deposits her eggs the male fertilizes them. The female then covers the fertilized eggs and the resulting nest is called a redd.

## MISSION

Our mission is to educate and engage the community in habitat restoration and watershed stewardship to enhance wild salmonids.

## BOARD OF DIRECTORS

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## BOARD MEETINGS

The SFEG Board meets the 4th Tuesday of each month. The public is welcome.

## STAFF

Alison Studley, *Executive Director*

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## CONTACT US

360.336.0172

sfeg@skagitfisheries.org

P.O. Box 2497

Mount Vernon, WA 98273

# New Grants Fund Local Projects

By ALISON STUDLEY - Executive Director

The Skagit Fisheries Enhancement Group prides itself on working with landowners to develop high priority habitat restoration projects that compete successfully for a diversity of funding sources at many levels. Recently the Skagit Fisheries Enhancement Group is happy to report a number of grants awarded from local, state, and federal sources to fund projects that improve habitat for salmon and other species that depend on salmon.

The **WASHINGTON STATE SALMON RECOVERY FUNDING BOARD** made funding announcements in January awarding \$590,000 in grants to the Skagit Fisheries Enhancement Group. The Skagit Fisheries Enhancement Group received three grants in 2018. One grant is to complete engineered design plans for restoring habitat in Britt Slough, a second grant is to continue working with the Hamilton community to restore fish passage and improve off-channel habitat for salmon, and a third grant is to work with multiple partners to plant trees and shrubs along the Skagit River to restore floodplain habitat.

The **WASHINGTON STATE DEPARTMENT OF ECOLOGY** also announced grant awards in January for clean water projects through the Centennial Clean Water Fund. The Skagit Fisheries Enhancement Group was awarded \$250,000 in grant funds to work with a number of different landowners to plant trees and build fences to improve water quality in local waterways. Specifically the grant from the Department of Ecology will fund building 4,000 feet of fencing to exclude livestock from waterways and plant 25 acres of vegetation in areas along the Skagit River and its side channels between Sedro-Woolley and Concrete. These grant funds will also help engage community members in caring for these waterways and fund education programs for students attending schools in Sedro-Woolley, Lyman, and Concrete.

Last but certainly not least, the Skagit Fisheries Enhancement Group is the recipient of grant funds through a new unique public-private partnership that created the **KILLER WHALE RESEARCH AND CONSERVATION PROGRAM**. This program has pooled together funds from the **NATIONAL FISH AND WILDLIFE FOUNDATION, U.S. FISH AND WILDLIFE SERVICE, NOAA, SEAWORLD**, and our own local **SHELL PUGET SOUND REFINERY** in Anacortes to create the Killer Whale Research and Conservation Program. This program funds projects to aid in the recovery of our iconic orca whales including salmon research, the monitoring of killer whale health, and habitat restoration for orcas and their prey, salmon.

The Skagit Fisheries Enhancement Group was awarded a grant for \$97,000 to help restore Britt Slough, which is on the eastside of the Skagit River just before the river splits into the north and south forks that border Fir Island. These grant funds together with funds awarded from the Salmon Recovery Funding Board will enable SFEG to work with our partners at the Skagit Conservation District to restore about 8 acres of floodplain on state Department of Fish & Wildlife property to support young Chinook salmon before they swim out to the Salish Sea.

SFEG previously received a grant in partnership with Restore America's Estuaries from the Foundation's Killer Whale Program for a project at Pressentin Park in Marblemount that is also designed to increase Chinook salmon habitat.

The endangered Southern Resident orca population, which frequents the Salish Sea including areas around west Skagit County, has fallen to 76 whales this year despite being protected under the federal Endangered Species Act. Having grant sources recognize the importance of funding projects that increase the abundance of Chinook salmon for orcas is just one example of how the work done by the Skagit Fisheries Enhancement Group is about "way more than just salmon!" Thank you to all the funding sources and all of you for your continued support of restoring salmon to have healthy communities for all of us.

# Schooling Small Fry

CONTINUED FROM PAGE 1



*Measuring the pH of a salmon stream*

After that, it was a waiting game. Students eagerly followed the progress of aquarium set up. Choruses of “When will we get our fish?” followed us whenever we visited. Finally, just after winter break, the time came. Over two days I personally picked up 2000 coho eggs from the Marblemount Hatchery and delivered them to our schools. Excited students helped me place eggs carefully into the water. Many students named their eggs and tried to memorize where they came to rest on the gravel. This year, we had a special surprise. Instead of a couple more weeks of waiting, eggs began hatching at delivery. A few lucky students had salmon hatch right in their hands! Within just a couple of days, the rest of the eggs in the tanks followed suit.

Since then, students and teachers have watched their salmon grow from newly hatched alevin into strong, active fry. But not all fish were so lucky. Darth Vader, a distinctive darker salmon and student

favorite, died before release day. In the wild, it is likely that only about one to two percent of coho eggs would survive all the way through the fry stage. But aquariums are safe environments and students are excellent caretakers, so most schools successfully release 60-85% of their fish. A typical salmon release field trip involves counting up the surviving fish as we catch them out of the tank, transporting them in a cooler of water to the stream, and divvying them up among the students in clear plastic cups. Students can't wait to get ahold of their cup of salmon. Most have two to four, and love coming up with names while they wait to put them in the stream. I've helped release several fish named Bubbles; a few Princesses and Sparkles; and many, many fish named after cartoon characters. The salmon almost immediately dart for cover, acting on instincts that will serve them well in the dangerous outside world. Students watch fish until they are swept out of sight and then begin imagining the new lives their fish will lead, often voicing the hope they will see their fish return in a few years.

For the salmon, release is the beginning of an uncertain life in the wild. For students, it is end of their care for individual salmon, but only the beginning of their care for all salmon. Salmon in the Classroom is such a special program, and I am so glad I was able to help make it happen.

## At the River's Edge on an Afternoon Nearing the End of the Second Decade of the Twenty-first Century

By JIM JOHNSON

*A buck Chum slides listlessly over  
Even around cobble back out of water  
Dorsal-fin erect leading edge white  
Ripening with flesh-eating fungus bright  
Under October sun. Newly grown canines  
Powerless to bring fall rains.*

*No hen nearby in shallows only Pinks  
Maybe thirty holding in slack water  
Above cobble too big too embedded to move.  
No digging of redds here; no spawning at  
hand.*

*Me watching a few yards away squatting  
Seeing more nearly kin than resource.*

*Intellect as useless as imposing  
Teeth, I pick my way back to yellowing woods  
Footing ankle-wrenching, balance  
Uncertain to a lesser stream  
Dry since midsummer.  
Waiting.*

**AUTHOR'S NOTE:** This little prose poem may seem particularly silly in the midst of a wet dark winter. It was written though, a couple days prior to a goose-downer of a storm blowing in from the Pacific and dramatically raising the level of the River and its tributaries. I was trying to get at the sadness of an otherwise lovely afternoon and the larger unease floating behind it.



# SKAGIT

## *A gem worth*



*Congressman Rick Larsen with AmeriCorps and volunteers*



*Ivy removed from nearby trees*

**By ERIN MATTHEWS**  
**AmeriCorps Restoration Associate**

Americans have been celebrating Earth Day on April 22nd since 1970, but did you know there is another national day dedicated to raising awareness for an environmental issue that is critically important in our community? April 21st 2018 is World Fish Migration Day! Created in 2016 by the World Fish Migration Foundation, World Fish Migration Day was established to raise awareness about the connections between the economic and environmental importance of migratory fish, the need for healthy rivers, and the communities that depend on these resources.

Migratory fish, such as salmon, are not only an economic resource worth millions of dollars, they are also culturally

important to the people who have lived around the Skagit River for over 11,000 years, as well as immensely important to ecosystem health with at least 137 different native species relying on salmon and the marine-rich nutrients that salmon provide. Despite their economic, ecologic and cultural importance however, Skagit River Chinook salmon stocks have been declining since at least 1935 with only short, intermittent periods of population growth. Salmon are an indicator of overall watershed health, and it is clear that the Skagit River is not the pristine water body it once was.

The Skagit Fisheries Enhancement Group is one of dozens of organizations that is currently addressing this serious issue in our community. On April 21st 2018 we celebrated Earth Day and World

## FAST FACTS! THE SKAGIT IS....

- The largest watershed in the Puget Sound, providing over 30 percent of all water that flows into the Sound -- Over 10 billion gallons of water every day. That is enough water to keep a family of four happy for 6,845 years!
- The only river in the continental US to have substantial runs of all five Pacific salmon species: Chinook (king), coho, chum, pink, and sockeye
- Where 60% of the wild Chinook in Puget Sound are born.
- A source of drinking water for Burlington, Mount Vernon, Sedro-Woolley, and Anacortes

*It's about way more than just salmon!*



# RIVER

## h preserving

Fish Migration Day at a restoration site in the heart of Mount Vernon: Edgewater Park. In 2005 a major salmon habitat restoration project was undertaken at Edgewater Park with the City of Mount Vernon. Over 2,000 feet of shoreline were re-vegetated with 2,400 native plants, 2 acres of invasive species were controlled, and a 1,200 foot side channel was constructed in order to provide rearing habitat for young salmon. This restoration area is already a success story because juvenile salmon have been observed utilizing the slough, but more can be done. SFEG, the Mount Vernon Parks Department, and the Mount Vernon Parks Foundation partnered this Earth Day with dozens of community volunteers to remove harmful invasive species, pick up trash, maintain a nature trail that goes through the restoration area, and to educate and engage the community in restoration and stewardship. Thank you so much for Earth Day donations from

the following: Sorooptimist International of Anacortes, Swinomish Casino & Lodge, Starbucks, Girl Scouts of Western Washington, Viva Farms, Breadfarm, The Woolley Market, Geo Engineers, Island Adventures, Max Dales, Vital Seafood, and Haeleum. Watershed restoration is a long and difficult process, but entirely worthwhile. The Skagit River is considered by many to be the best hope for wild salmon recovery as well as a driving force in the recovery of our resident orca whales. This unique watershed supports our communities of over 120,000 people, and it is well worth protecting and preserving for future generations.

#### SOURCES:

- <https://www.worldfishmigrationfoundation.com/projects/15/world-fish-migration-day-2018>
- <http://www.skagitwatershed.org/news/fish-of-the-skagit-river-and-how-they-are-doing/>
- <https://water.usgs.gov/edu/qa-home-percapita.html>
- <https://www.nps.gov/noca/learn/nature/fish.htm>



*A seining survey revealed many juvenile Chinook and chum salmon using the restored side channel*



*Volunteers pulled lots of ivy from nearby trees*



*Seining survey shows juvenile fish use of the side channel*



# The Good, the Bad, and the

By KEELIN MAURMANN  
AmeriCorps Restoration Associate

Sitting at my desk, doing whatever it is that I do, a little notification pops up for one of the spawner survey volunteers sending in their data sheet. The survey season had been dry. Physically, the streams were all pretty low, some not even connected to the Skagit. Most of our data that we were receiving was zero. Zero water, zero flow, and zero fish. We were hopeful that the previous week's rains would bring in fish and so far it had seemed to work, some of the reports we got were of a couple fish in some of the streams.

So when I open this email and print out the data sheet, I'm pleasantly surprised to find that they saw 27 live fish. This is crazy! Immediately I schedule a time to go out with them.

That specific creek doesn't really have a name. We affectionately call it Little Cascade, because it is a tributary to the Cascade River. It's a small reach that is now accessible to fish. There had once been a



Volunteers Jim Johnson and Kurt Buchanan

fish barrier culvert that was removed and is now just open streambed.

Going out to walk a creek in December doesn't sound like fun, especially considering that I need a blanket in the office just to keep warm. Now that I've reached my ripe age of 22, I don't play around anymore; I bring out the big guns. I had already gone out to a couple surveys earlier in the season, so I know what I need to keep warm and comfortable. Unfortunately, I forget my good work gloves, but bring cotton gloves.

"You have cotton gloves?" says one of the surveyors, it doesn't even matter which one because I know ALL of them are thinking it.

"Yes..." I reply sheepishly.

"You should get fingerless wool gloves, like the ones I have," says Kurt Buchanan as he shows me his well-worn gloves. Each of the three men have their own way of keeping their hands warm. Jim Johnson has bright orange water-proof gloves that come up to his mid forearm with some sort of wool or work glove under them. Kurt has his fingerless gloves and Hal Lee has his own work gloves. I know they're right, I don't have any problem saying that they

are, mostly because my hands are cold.

During the car ride up to Marblemount we have the heat turned up and a few snacks in our bellies; it's not hard to relax. These three men, all retired and thoroughly involved in their community are too much fun to listen to. They were around for the beginning of Skagit Fisheries. Kurt and Jim are former Board members.

"Until they kicked us out," says Kurt slyly, all of them laughing. They've been doing these surveys for a while, walking different creeks as well as volunteering for other organizations. Each of them a previous Dick Knight Volunteer of the Year Award winner, well-versed in the trials and successes of contributing to their community.

I think my favorite part of the ride is just listening to them talk. They've been volunteering together for so long that they seem to know everything about each other.

"We've been together too long if you ask me," says Jim. I want friends like that.

Finally, we arrive at Little Cascade. I'm excited. The previous stream was a little bit of a disappointment, our hope dashed not seeing any fish. Both sites are Skagit Land Trust properties. I love when organizations work together like this, cooperating to restore different aspects of the land is how I think all environmental organizations should interact.

"I think you ran over a sapling," Hal says looking under the truck. "Yup, there he is."

"Really? I was so careful!" I say, running to stick my head under the vehicle.

"Don't worry; he was planted in a very odd place. He should be fine." Hal says smiling. These men love to tease.

I take forever to suit up; I just have so much stuff. I would love to get video of the surveyors suiting up, have superhero music to back them up and put it in a video. But I swear, I am literally flailing around in the back trying to get all my gear ready and everyone else is already done. Finally I'm ready, with all my camera equipment (a waterproof camera and a GoPro) and too big work gloves on, we begin.

We walk down a slope that used to be the site of a culvert, now removed and the beginning of our reach. We already see two fish, hanging out just above where



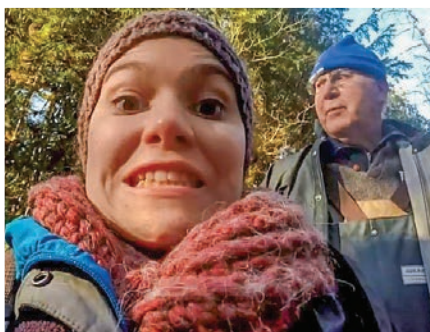
# Fishy

the culvert used to be. I turn the GoPro on and dip it in the water. I am shaking with excitement, internally screaming. We move on and find some carcasses. The water is exceptionally clear; I can see the fish fairly far up from where we are. With a cloudless sky above I am now comfortably warm.

Now there are fish everywhere. As we walk through the creek, the gravel is so squishy and clean where fish have stirred it up. Kurt, a fish biologist in his previous life, is our go-to for all our redd questions. We spot them everywhere. Fish hit up against our legs as they swim past us, and others merely relax in the shelter of a log. I'm on cloud nine. I probably look like a little girl frolicking in a meadow, chasing butterflies, but that is where I am in my mind. We finally get to the end of our reach and begin bush-whacking our way back up to the road. It is such a good day.

"It's so nice to see the younger generation getting excited about this. I wish we could bring more people out to these streams, but it's just so far out of the way." Comments one of them. I know the feeling. Just think: if we could give everyone an experience like this, I wonder what things we could accomplish.

The work that our Spawner Survey Volunteers do is so important. How can we possibly know if we are making an impact if we can't see the results? Through this surveying year, I have met more knowledgeable and kind volunteers at any other time in my life. They all have this deep-set desire to do their part, but I think they also enjoy it. I think that they probably really love going out in those tough conditions, counting fish, grabbing carcasses and being out in nature getting to know this stream like it was their friend. I know I did.



#SalmonSpawnerSurveySelfie

# 2018 Membership



## SFEG IS A MEMBERSHIP BASED ORGANIZATION

If you are enjoying reading this newsletter, perhaps it's time that you became a member! Your membership dollars are critical to support the operation of SFEG (including producing this newsletter), allowing us to develop new projects with landowners, providing education programs to kids throughout our watersheds, and collecting monitoring data regarding restoration project sites to document successes.



### MEMBERSHIP INFORMATION

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY / STATE / ZIP \_\_\_\_\_

EMAIL \_\_\_\_\_

PHONE \_\_\_\_\_

### MEMBERSHIP LEVEL

☐ \$20 - INDIVIDUAL

☐ \$35 - FAMILY/HOUSEHOLD

☐ \$100 - SUPPORTER

☐ \$500 - BENEFACTOR

☐ OTHER \$ \_\_\_\_\_

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**P.O. Box 2497  
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### GIVE ONLINE AT:

**[www.SkagitFisheries.org](http://www.SkagitFisheries.org)**

*Skagit Fisheries Enhancement Group is a 501(c)3 nonprofit organization. All contributions are tax deductible to the extent that the law allows. Tax ID#: 94-3165939*

## Volunteer Spotlight



*Jamie and Antonia Weiss*

### How did you get started volunteering with SFEG, and what volunteer projects are you involved in?

**A:** We started volunteering with SFEG after participating in the Skagit Watershed Masters program. The director of the program notified the class of volunteer opportunities in the community and SFEG's educational work intrigued us.

### Do you volunteer with any other organizations?

**A:** Toni does not currently volunteer with any other organizations, but she is looking for opportunities that fit her schedule. Jamie volunteers with the Skagit Stream Team as well as the Marine Bio toxin team.

### What inspires you to donate your time to salmon habitat restoration?

**A:** We have always been interested in helping and being involved in our community, which is what led us to take the Watershed Masters course. During the course we learned about how prominent the salmon are in Washington. We also learned about how important salmon are to the environment and economy in Washington. Additionally, we learned about the declining salmon numbers and what we could do to help. Naturally, we wanted to do whatever we could to help the salmon populations rebound, which starts with healthy and available habitat.





## SKAGIT FISHERIES ENHANCEMENT GROUP

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# Events and Opportunities Calendar

### **Penn Cove Water Fest**

**May 12 (Saturday), 11-5 pm in Coupeville**

Help with SFEG's educational display and a crafty, fishy project for all ages. More info: [www.penncovewaterfestival.com](http://www.penncovewaterfestival.com)

### **SFEG Vegetation Monitoring Workshop**

**June 2 (Saturday)**

Learn monitoring protocol to help survey vegetation at restoration sites. Introduction to identifying native and invasive plants, assessing plant health, and estimating coverage in riparian planting projects. For more information or to RSVP: [outreach@skagitfisheries.org](mailto:outreach@skagitfisheries.org) (360) 336-0172 or visit our website at [www.skagitfisheries.org](http://www.skagitfisheries.org)

### **Berry Dairy Days**

**June 16 (Saturday), 10am-6pm in Burlington**

Help with SFEG's educational display and a crafty, fishy project for all ages. More info: [www.burlington-chamber.com/community-events/berry-dairy-days/](http://www.burlington-chamber.com/community-events/berry-dairy-days/)

### **SFEG at Mount Vernon Farmers' Market**

**July 14 (Saturday)**

Help with SFEG's educational display and a crafty, fishy project for all ages

### **SFEG at Edison Farmers' Market**

**July 15 (Sunday)**

Help with SFEG's educational display and a crafty, fishy project for all ages

### **Kids in Nature with Skagit Conservation District**

**August 18 (Saturday), 11am-2pm at**

**Pomona Grange County Park**

Help with SFEG's macroinvertebrates activity along Friday Creek. More information at [Kristi@skagitcd.org](mailto:Kristi@skagitcd.org)

### **Skagit River Salmon Festival at Edgewater Park**

**September 8 (Saturday), 11am-6pm  
in Mount Vernon**

Join us for a fun-filled experience for families featuring: Youth Activities and Crafts, Educational Booths, Live Music and Cultural Opportunities, Great Food and Salmon BBQ, Beer & Wine Garden, Commercial Arts & Craft Vendors, And much, much more! More info at [www.skagitriverfest.org](http://www.skagitriverfest.org)

### **Fidalgo Bay Day**

**September 15 (Saturday), 11am-3pm at  
Fidalgo Bay Resort.**

Help with a crafty, fishy project for kids. More info: [www.skagitmrc.org/projects/education-outreach/fidalgo-bay-day/](http://www.skagitmrc.org/projects/education-outreach/fidalgo-bay-day/)