Junior Stream Stewards Plant Trees for Salmon

By Lucy DeGrace

Students in the Junior Stream Stewards program at Cascade Middle School and Concrete Middle School have completed their service projects for this year. On March 19 Mary Janda's 8th-graders planted evergreens and shrubs, as well as cuttings of willow and dogwood along Lorenzan Creek in Concrete. Despite the cold rain that pelted us throughout the morning, students dug right in with gusto. Mike Brondi and Gwen Peterson from North Cascades National Park assisted with the planting project, bringing traffic cones and some of the students' cedar seedlings that have been growing in the National Park's nursery. Park staff are working with the students produce multi media projects to teach the community about what they've learned through Junior Stream Stewards this year. Look for their artwork at the Concrete Library and the North Cascades National Park visitor center in Newhalem.

Bill Robinson's seventh graders from Cascade Middle School in Sedro Woolley had their service project at the Northern State Recreation Area. After learning a bit about the history of the Northern State Hospital, the students planted 70 cedar trees along Hansen Creek. This effort will be built upon when SFEG holds a volunteer planting party in honor of Earth Day here on April 19.

Students at Conway and Allen schools are designing educational signs to be placed at various locations in their watersheds during field trips in May.

We're thrilled to have great partnerships for the Junior Stream Stewards program. In addition to all the generous business donors, we're glad to have the National Park and local municipalities helping to make this program better each year.

Volunteers Brave Rain and Snow to Restore Floodplain Habitat

By Lucy DeGrace

This season's planting parties and nursery events have been challenged by Mother Nature. At our first event at Ovenell Slough, volunteers endured not just bitter cold but a bit of a blizzard. That didn't slow us down though- 200 trees were planted in a few hours by a small but hearty crew. Our second event, at the Marblemount boat launch, had to be cancelled due to existing snow. Fortunately we were back in action by week three, at a beautiful site on the Sauk River. Volunteers were shedding layers as the sun made a welcome appearance. We'll hold one more planting party this spring. In honor of Earth Day, we'll be planting at Hansen Creek in Sedro Woolley on April 18 (see inset). We hope you can join us if you haven't already.

Corinne plants trees in a winter wonderland

In addition to our Saturday planting parties, several groups have pitched in to help restore riparian areas around the watershed this spring. Laure Brooks' marine biology class from Mount Vernon High School came out to our East Fork Nookachamps site early in March to learn about riparian ecosystems and restoration. After planting 200 willow and dogwood cuttings, and 20 spruce trees, the students conducted simple water quality tests and came up with healthy readings of pH, dissolved oxygen, and turbidity levels for this section of the creek.

On March 24 about 35 students from Emerson High School joined us at the Ovenell Slough site. No snow this time, but the students planted 175 trees while learning about the dynamic power of the Skagit River. This site is home to massive log jams and some pretty impressive erosion.

Meeting local wildlife at East Fork Nookachamps

Mount Vernon High School Marine Biology students with teacher, planting

Join us to Celebrate Earth Day!

Didn't get out to plant with us this spring? Don't worry- there's still one more planting opportunity. On April 18 SFEG will celebrate Earth Day with a planting event at Hansen Creek in Sedro Woolley. In partnership with Upper Skagit Indian Tribe, Skagit County Parks and Recreation, Skagit Parks Foundation, and Starbucks, we will plant native trees and shrubs as part of a larger restoration effort at Hansen Creek at the Northern State Recreation Area. The event kicks off at 9:30 a.m. and we'll work until about 12:30. Starbucks will supply the morning refreshments to get you going, and Skagit Parks Foundation will provide lunch to refuel you afterward. **To get there**: Take Highway 20 to Sedro Woolley; just east of town, turn north onto Helmick Road, and park in the trailhead parking lot. To ensure we bring enough snacks and supplies, **please register** one of three ways: with SFEG at 360-336-0172; email NSRAEarthDay@yahoo.com; or sign up at one of several Skagit County Starbucks locations.

Dan plants in a field with a view along the Sauk River

We still have a few more school groups scheduled for planting before planting season ends. Considering the weather our volunteers have endured, we're particularly grateful to those of you have sacrificed your comfort in the name of habitat restoration! We would also like to thank Calico Cupboard in Mount Vernon for donating refreshments and to Wizards of Ooze for dependable service this season.

2008-09 Spawner Survey Report

By Joe George

It has been a very challenging year for spawner surveys. The first of many obstacles this year was that we had to dig our way through the snow to get to our creeks. Some of us walked when the temperature was 19 degrees, trying to keep warm, fighting the bitter cold and ice forming on our waders. After the snow and rain events, we then had to wait for the floods to recede. As we were able to gain access to our creeks, we found huge changes. Some of the creeks created new side channels or developed a new course, and gravel bars changed location. But, it did make for some beautiful scenery and interesting ice formations on logs and plants in and along the creeks.

I had a chance to walk a couple creeks with volunteers. David and Mary McDonald walk a tributary to Lake Creek near Lake McMurray. They have a beautiful walk up to a natural fish barrier waterfall. I also walked with David Farrow and Christine Kitch on GC creek, near Big Lake. There is a bit of a walk to get there. Dave and Chris say hi to the cows, and Chris brings carrots to feed the horses as they walk through the pasture to get to their creek. GC creek is beautifully tucked away and covered by a lush riparian area. What I enjoyed the most was listening to the stories, experiences, and the history of the creeks they walked.

Volunteers who attended our end of the year potluck had a delicious meal and plenty of good deserts. We shared good ideas for improvements to next season surveys and discussed using codes to record the different water conditions and weather

This year 26 creeks were surveyed totaling about 16.45 miles.

Total salmon documented by SFEG Staff and Volunteers

2008-09	Live	Carcass	Redds	Average Length (m)
Chinook	6	0	6	N/A
Chum	120	33	38	0.73
Coho	471	102	152	0.69

Hansen creek did not have any Chinook this year, which may be due to the low water level in the creek. Chinook returns on creeks that are regularly walked were very poor compared to last year's totals. Grandy Creek and East Fork Nookachamps, which are not regularly walked year to year, were the only ones that had Chinook return. We had over twice the number of chum return this year and we had a little more than half the coho of last year.

I was hoping with the last large rain event in January that some of the stragglers in the Skagit River would venture up some of the creeks. Lyle creek, in Darrington, was the only creek that had coho stragglers.

Our AmeriCorps intern, Ona Strikas, holds the record for the number of falls into the creek this year at 6.

Kara took her fiancé, Chris, out to walk the East Fork Nookachamps. He was excited to be out seeing salmon, and his job was to cut the tails on the carcasses they counted. Chris could not get past the smell, so Kara had to do it.

Corinne Hughes, our WCC intern walked Parson Creek and saw the first chum since we have been keeping records on that creek. Barnes creek also saw its first chum since we started keeping records.

This Male Chum has done his job.

Acknowledgements: I would like to thank everyone involved in making these spawner surveys possible this year. Thank you to Lucy DeGrace for her support and guidance in helping set up the workshop and potluck. I want to thank the volunteers Worth Allen, Ned Currence, Woody Deryckx, David Farrow, Dan Heimbigner, Jim Johnson, Christine Kitch, David and Mary McDonald, Chattan McPherson, Boshie Morris, Pat and Carol O'Hearn, Ally Schober; **landowners** Tom Berry, Ken Goodpastor, David Gribble, Anthony Hamerski, Floyd Kennedy, and Mike Wood; **SFEG Interns** Ona Strikas and Corinne Hughes; **Restoration Technicians** Andy Beckman, Kara Bloch, Kyle Koch; **Project Manager** Perry Welch; **Sauk-Suiattle Tribe's** Eugene Edwards, Kevin Lenon, Michael Wolten, and Scott Morris; **Upper Skagit Tribe's** Jennifer Trunkey, Mike Pereira, Christine Gourley; and **Washington Department of Fish and Wildlife's** Brett Barkdull and Natasha Geiger. We greatly appreciate all the hard work and effort that everyone puts into this very important part of salmon recovery. Thanks, and we hope to see you all next year.

The Changing Face of SFEG

The face of SFEG seems to be ever-changing these days. Kara Bloch joined us last spring. Kara was a great addition to our field staff, but new adventures await her as she embarks on a lengthy tour of Europe. We wish her well and will miss her. Please help us welcome some other new staff:

Greetings. My name is Andrew Beckman and I started working as a restoration technician for SFEG in May 2008. Before this I held a variety of jobs relating to fish in the Pacific Northwest. I conducted fish surveys in Mt. Rainier National Park, collected creel data for the state Dept. of Fish & Wildlife in Westport, WA, counted salmon redds in the Chehalis and Willapa Drainages, and then decided to get involved with river restoration work. After serving a year in AmeriCorps restoring parts of the East Fork Lewis River (Clark County), I am very interested in pursuing restoration work. I am hopeful we can make the Skagit Drainage an accessible, diverse, and natural habitat for wild salmon. I was born in Skagit Valley, living in Bow before my family moved to Olympia. I graduated from the Evergreen State College with a B.S. focused on Natural Sciences. I love exploring the outdoors, birding, mountain biking, reading, writing, and playing music. I enjoy working with the SFEG field crew and am glad to be a part SFEG's restoration efforts.

Greetings all! Perhaps an introduction is in order. My name is Bengt Miller. I was Skagit Fisheries' first Washington Conservation Corps intern, back in 1999. Over the years I have tried to keep in touch, with varying degrees of success. I am delighted to once again be fighting the good fight, this time as the most recent Restoration Technician on staff. Since my initial stint with SFEG I have used my AmeriCorps education award to pursue such varied interests as construction, GIS and land surveying. I hope these skills will fill a niche within SFEG. I look forward to rekindling old friendships and forging new ones.

Moving into the Digital Age

By Ona Strikas

These days, it seems everything revolves around the internet. One can watch movies, pay bills, and buy groceries, all online. We are currently trying to catch the wave of internet networking by a few new extensions of Skagit Fisheries Enhancement Group.

We are now on Facebook. You can find us by simply typing 'Skagit Fisheries Enhancement Group' into the search bar. This Facebook page allows you to easily view photos, track our upcoming public events, and get to know our organization in a more dynamic platform.

We are also updating our website at http://www.skagitfisheries.org. Please pardon our appearance on the website while we are under construction. Soon we will have a more informative, and more user friendly website.

If you have any questions about this transition, feel free to email me at education@skagitfisheries.org, or call the office at 360-336-0172.

Being a Salmon Friendly Gardener

Adapted from the brochure How to be a Salmon Friendly Gardener developed by Seattle Public Utilities and reprinted with permission by SFEG

It's garden season again, and while beautifying your own lawns and gardens, keep in mind how your actions may affect salmon and their habitat. Our landscaping practices are an important part of the changes around Puget Sound that threaten salmon with extinction. The way we garden can make a real difference in providing our salmon neighbors with a healthy place to come home. Here are just a few things you can do this spring to help keep our streams and salmon healthy.

Tip #1

Did the winter wind blow trees, limbs and branches into your stream? The debris can be important habitat and cover for young fish in your stream. So resist the temptation to take it out, leave that debris in the stream and let nature take its course. The fish will thank you.

Tip #2

As you begin to garden this season if you choose to use fertilizers and herbicides, remember to always use these chemicals as directed. Using more than directed often harms rather than helps your new plants. Rain then collects the extra chemicals applied to lawns and gardens and washes them into nearby storms drains or streams, polluting the water for baby salmon just emerging from the gravel.

Tip #3

Go native! Native plants thrive with little care, in the right conditions. Below are some examples of native riparian plants used in SFEG's habitat restoration, and that you might want to try on your property. These species benefit other animals in addition to salmon:

Redtwig dogwood (*Cornus sericea)* *(left)*

This fast-growing deciduous shrub provides wildlife habitat (food, cover, and nesting), stabilizes slopes, prefers moist soil, and will grow in a variety of light exposures. It can be planted as a rooted plant or as a live stake.

Oregon Grape (*Mahonia aquifolium)**(right)*

This evergreen shrub also provides habitat, flowering and fruiting from spring to summer, and will grow in either moist or dry soil conditions.

Snowberry (*Symphoricarpos albus)*
This deciduous shrub provides berries in fall and winter that benefit birds when most other berries are long gone.

For more information, stop by our office and pick up a copy of the brochure How to be a Salmon Friendly Gardener, or we'd be happy to mail it to you. Happy Gardening!

From the President

By Deene Almvig

It seems just a few months ago I was writing my first president's report and now, two years later, I'm writing my last. So, what has happened in this time span? Have we turned the salmonid returns to the returns of the forties and fifties, or even the eighties and nineties? For me, the answer is no, not even close. Coho, chum, pink, sockeye, Chinook, and steelhead populations are all declining with the possible exception of spring Chinook, where increased hatchery production and a harvest moratorium have resulted in a short net and recreational fishery. Does this mean the past fifteen plus years of river rehabilitation have been les than desired? From my perspective natural salmonid recovery is yet to be determined. However, we know some good changes are occurring:

- Finney Creek water temperatures are declining due to river narrowing resulting from engineered log jams and increased canopy cover.
- Stream and river water is cleaner and less turbid because of riparian plantings and fencing which excludes livestock and the waste they create.
- Miles of spawning habitat have been added because of the removal of failing culverts that do not allow fish passage, replaced with structures that do.
- Education and outreach programs that have increased public awareness of the value and means to protect our salmonids through volunteer efforts, landowner cooperation, workshops, publications, and the Junior Stream Stewards program.
- Every year several thousand salmon carcasses obtained from the Marblemount Hatchery are returned to Skagit River tributaries, providing nutrients for salmon fry as they come out of their redds.

It took fifty or more years of habitat degradation, over harvesting, and poor ocean conditions to get us where we are. If it takes fifty years to correct the problem, we must attempt it. It is a must-do situation! Our future well-being depends upon it because of the value of the resource and the secondary effects of water quality.

On another note, I would like to inform you who our new officers are. Bruce Freet, who has been the board vice president, has been elected president. Jeanne Glick has accepted the vice president position, Dan Ballard is continuing as treasurer, and Ned Currence continues as secretary. These people are exceptional leaders; SFEG is in very good hands.

Forage Fish: a Crucial Food Source for Salmon

By Ona Strikas

Pacific herring, Pacific sand lance, and surf smelt compose the main nearshore forage fishes. The importance of these forage fishes is reflected by the fact that many upper echelons of the ocean food web rely upon these fish for a meal. Juvenile nearshore salmon rely on forage fish for a substantial part of their diet, so knowledge of forage fish is helpful when learning about the salmon life cycle. Some of us have probably already used forage fish as bait when angling for salmon in ocean waters, especially Chinook, so let's learn more about their life histories and biology!

We have about 20 individual stocks of Pacific herring in and around Puget Sound. These stocks are usually counted by acoustic surveys done 3-4 weeks before the herring spawn. At this time, the herring will start to school in large numbers (tons of biomass) in order to spawn effectively in localized areas. These fish are pelagic, so they school in the middle of the water column, and the last estimates from the Washington Department of Fish & Wildlife (WDFW) had the cumulative stock biomass around 16,000 tons for the entire Sound. Pacific herring spawn in the nearshore habitat laying translucent eggs on sub tidal eelgrass. Most stocks lay their eggs between late January and early April. More than half of the adult herring stock fall to predation each year, and herring seldom live beyond five years. WDFW has limited commercial and recreational fishing for herring recently due to exploitation concerns since they are a critical link in the ocean's food web.

Unlike herring, surf smelt tend not to coalesce in large open-water schools. They spawn on the nearshore beaches, and are quite tolerant of the thermal variation, elevation variation, and even some grain size variation of their spawning grounds. Currently, they utilize about 10% of Puget Sound beaches for spawning, but their range covers the entire Sound, from Blaine all the way to South Hood Canal. Surf smelt can live up to five years, and can reproduce multiple times beginning at age one or two years. Surf smelt spawning beaches are degraded or destroyed by bulkheads and other structures that harden the high beach tidal zones to protect manmade structures from erosion. With increasing research in recent years, regulatory agencies are attempting to limit or remove beach armoring to protect these forage fish and their spawning grounds.

Pacific sand lance, known as candlefish to fishermen, are a favorite for juvenile salmon, comprising over 35% of their nearshore diet. They have the unique habit of burrowing in the sand at night to avoid predators. The sand lance spawn on over 130 miles of Puget Sound's beaches, within a variety of grain sizes, from fine grains to armored pebble beaches. These fish primarily feed on zooplankton, and are one of the main links from plankton to the higher reaches of the ocean food web.

Forage fish are important creatures not simply for sport bait, but also because they provide food for many other ocean creatures, especially salmon. The more we learn about these largely unknown species, the better chance we have to effectively recover Puget Sound salmon. To learn more about forage fish, visit the following web sites:

- http://whatcom-mrc.wsu.edu/MRC/projects/foragefish.htm
- http://wdfw.wa.gov/fish/management/saltwater.html

Annual Meeting 2009: Good Food, Great People

By Lucy DeGrace

SFEG's Annual Meeting and Silent Auction Fundraiser was a big hit this year. We celebrated the work and volunteers of 2008, and guest speaker Russel Barsh presented his program "Skagit Salmon's Use of the San Juan Islands."

The Dick Knight Award was presented to Kurt Buchanan for his many hours of volunteer service in 2008 toward education, project development, and monitoring. Kurt has contributed his expertise in so many ways to our organization, and we are lucky to have him as a volunteer. Beach Watcher volunteer Bill Bowen was recognized for all his efforts in education and assistance with At the Water's Edge, an educational event at Rasar State Park. Bill took on the task of setting up a tank of juvenile salmon from the Marblemount hatchery at his camp site at the park, and fed and cleaned up after them for several weeks! Anyone who passed by his campsite got an impromptu lesson about salmon. Also recognized were private timber companies Goodyear Nelson, Sierra Pacific Industries and Hampton Tree Farms, for their cooperation with our Lower Finney Creek logjam project.

Our silent auction and raffle fundraisers included a mix of beautiful artwork by several local artists, and great merchandise from local businesses. With Puget Sound Energy as a sponsor to our event, more money raised from this auction can go directly back into our programs. Our guests were treated to a grilled salmon dinner prepared by current and past board members, with salmon donated by Ken Urstad and Lone Tree Point Seafoods. Local beer donated by the Anacortes Brewery and Rock Fish Grill along with Skagit Fresh sparkling fruit juices donated by Sakuma Farms were the perfect accompaniment to the salmon.

Thank you to the army of volunteers who arrived early to help set up and stayed late to help get everything cleaned up. SFEG staff had a great time, and we could not have pulled it off without you. See you next time!

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