

the REEDD



THE NEWSLETTER OF THE SKAGIT FISHERIES ENHANCEMENT GROUP

Dedicated to Restoring Wild Salmon for the Future Generations

On Volunteering

By **JIM JOHNSON**, SFEG Board Member

I have planted trees spring and fall with SFEG for maybe a dozen years without ever giving it much thought. Those planting dates just came along like the seasons and with the same inevitability. But a conjunction of three things got me thinking about volunteering and its larger context. Those three things include a couple of recent volunteer efforts: the wet and muddy potting party of February 25 and the planting party at the Alger Community Hall; the successful fundraising effort to celebrate the late Pat Hurley with a bench to be placed

along a walking trail near Hansen Creek; and lastly, phone calls to my representatives and senator in Olympia.

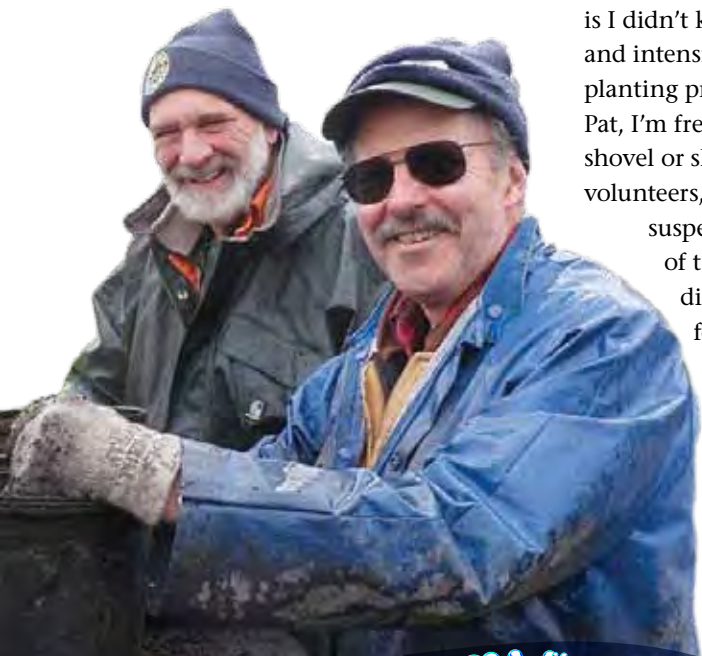
Those calls had me working up a spiel about how Republicans (the party affiliation of choice in my district) laud volunteerism and everything grass roots and all that suggests local control, and how in the Skagit Fisheries Enhancement Group we're just local folks going about our local business in local streams restoring local salmon. Maybe it played well. I don't know, since I didn't reach a live person, but only left messages.

And then there's Pat. The truth is I didn't know him well. The energy and intensity he brought to riparian planting precluded small talk. Unlike Pat, I'm frequently found leaning on my shovel or slurping the coffee provided for volunteers, or just schmoozing. For Pat, I suspect, the planting was a kind of therapy. I don't mean this disrespectfully; it's been therapy for me too. Pat, I think worked as an accountant before moving to Sedro-Woolley in his retirement. Perhaps he thought he had amends to make. I retired from thirty years of teaching, and though I worked in one of the "helping professions," I, too,

have things to answer for. There may also be among us those whose working lives directly and positively impacted the environment, but were, because of workplace constraints, unable always to do what they knew was right. We all have things to set straight. One of the great things about SFEG and the Skagit Land Trust and Skagit Conservation District is that they all provide those seeking some kind of redemption with venues to work out that need.

For those of us who grew up in a far different Puget Sound or remember a distant stretch of favorite trout water or fear the likelihood of climate change, planting trees is something tangible and real that we can do on a Saturday morning maybe in the company of our kids and friends. It is not a painful

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ABOVE: Jim Johnson (right) works with volunteer Jack Middleton potting new plants at the SFEG nursery



Trillium, AARON LOGUE

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 build partnerships that educate and engage the community in habitat restoration and watershed stewardship in order to enhance salmonid populations.

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BOARD MEETINGS

The SPEG Board meets the 4th Tuesday of each month. The public is welcome to attend.

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Mount Vernon, WA 98273

{ FROM THE PRESIDENT }



An East-Sider Moves West

By **CHRIS KOWITZ**

Fifteen years ago, as I was about to finish my junior year of high school, the only fish on my mind were the delicious rainbow trout in Lake Ellen – a small, isolated lake 10 minutes from my parents' house. The farm was humming along, and soon my days in science and math class would be replaced by long hours on a tractor working on my family's ranch. The ranch in Northeastern Washington that I grew up on has been in my family for over 100 years, although now it is primarily a hobby farm to occupy my dad's time after he retired.

Although I often complained of life on the farm as I grew up, it did offer me one thing that I am grateful for – room to explore. After my chores were done, I would spend hours exploring the streams and wetlands in the mountains behind our house. I wanted to know how things in nature worked and why – thus spawning (no pun intended) my intense interest in science. After attending Spokane Falls Community College for 2 years, I transferred to Western Washington University where I received a Bachelors of Science in Freshwater Ecology and Fisheries Management.

During my senior year at Western, I was lucky to land an internship (that

actually paid) with Skagit County Public Works as a Salmon Habitat Intern. We spent that first summer surveying streams around the county assessing habitat and stream health. One thing led to another, and after I graduated in the fall of 2004, I applied for and was awarded a full time position with the Public Works Department in the Surface Water Management Division. Two years later, I transferred to the Operations Division to start an environmental program within Road Maintenance- a position that I currently still hold.

Prior to 2008, my involvement with SFEG was primarily attending an occasional planting party and acting as a project partner on different restoration projects in the county. However, during a site visit in Sedro-Woolley during the summer of 2008, I met then board member Pat Hayden who invited me to attend a board meeting. After attending several board meetings, I was nominated to sit on the board in the fall of 2008 and I have now been on the board of directors for over 4 years. It is my pleasure to now serve as the president of the board- a challenge and opportunity that I am very much looking forward to!



Volunteering

CONTINUED FROM PAGE 1

penitence, usually, and rarely involves public humiliation. Where else can a citizen find an opportunity, a place beyond his or her own backyard, as important as that place is in the greater scheme of things, to bring into being an improved environment? At the Alger planting, fifty volunteers turned out and local folks expressed their thanks by kindly fixing for us chili and cornbread. By the end of the day I had become acquainted with a little parcel alongside Silver Creek. Someday, on my way to or from Bellingham I'll stop by and walk around. I can't in all honesty, ask for much more.

Sadly, to be alive in a car-oriented capitalist society is to exact a heavy toll on the environment. That doesn't mean we were especially greedy or rapacious, It simply means we were working at a trade, living our lives, and raising our kids, providing for them and perhaps enjoying a few small amenities and pleasures. We weren't bad people. We just went about our lives. Now we're given the opportunity to, in some small way, set things right. Thank you, local environmental groups.

Of course guilt and pride shouldn't be wasted only on the old. On a rainy spring morning some years back my daughter tagged along on an early SFEG planting party. After nearly three hours of slogging we had grown muddy and tired. She was sulky, whining, predictably adolescent, and sadly I wasn't the best of fathers. In retrospect, it's not a day of which I am particularly proud. Years later, home on a break from college, she borrowed the car to see some friends. Later that evening I asked her about her afternoon. She proudly announced that she and her friends

had been out looking at the trees she had planted years ago on that dreary day, a day that I had nearly forgotten. I was delighted, and have kept the memory of that conversation tucked close over the years.

I hope she is still able to point out those trees years from now. Of course things change and trees topple. At bottom volunteering isn't, at least consciously, about therapy, and guilt isn't the best or most enduring of incentives. It is rather about, in some small and local way, making the world a better place. It's also about the pleasures of middlin' hard physical work, a fondness for plants, particularly natives, an occasional spot of camaraderie in the rain, and the prospect of a hot shower when it's all over. Whatever the mix of motives, if a volunteer feels better while nudging the environment toward greater health and had a good time to boot, isn't that the best of all possible worlds?



KIERSTEN FERGUSON is SFEG's new Finance Intern. Kiersten is currently getting her MBA from WWU. She has a background in Marine Biology and an interest in combining her scientific knowledge with socially responsible and sustainable businesses. We are thrilled to have her with us to offer her expertise and skills as we transition to a new financial management system. Kiersten has a keen interest in nonprofits and is eager to learn as much as she can about nonprofit administration and grant management while she is with SFEG.



BELOW: When asked to draw a healthy stream, this is what an Allen Elementary 8th grader came up with. We like that he remembered oxygen and turbidity, as well as riparian plants and happy fish!



Coho Salmon

By **DAVID BEATTY**

Coho Salmon, KARI NEUMEYER

The coho salmon, *Oncorhynchus kisutch*, is also named the “silver” (not to be confused with the use of “silver” for kokanee, a resident sockeye salmon in some local lakes). The genus name, *Oncorhynchus*, means “hooked snout”, an obvious characteristic of spawning male coho (the “hooknose silver” in local jargon). When coho males are compared to females during spawning, the male has a more pronounced hooked upper jaw and ventrally has a brighter and more complete red coloration as the carotenoid skin pigments become evident when the scales containing the silvery guanine resorb.

After Chinook, the coho is the second least abundant of the Pacific salmon on this coast and after Chinook and chum, the next largest. As with Chinook, it is a popular sport fish both in salt and fresh water, but it also has commercial importance both in the net and troll fishery. Coho were popular in early west coast salmon aquaculture but have been replaced by Chinook and especially by Atlantic salmon (a non-native *Salmo* species).

Coho are distributed in North America from San Francisco Bay to Point Hope, Alaska. In Asia, coho range from the Sea of Okhotsk and Kamchatka to Siberia’s Anadyr River (Bering Sea). The distribution of spawning coho is

similar to that of Chinook; however, spawning coho generally do not migrate as far in major river systems as do Chinook. For both species, the largest populations are in the eastern Pacific Ocean and its coastal areas. Over the past decades, coho have declined in the southern area of their historical North American distribution. In 1966, coho were successfully introduced into the Great Lakes to control the non-native alewife (an anadromous member of the herring family). Alewife numbers had exploded when its major predator, the lake trout (a char), was decimated by an invasion of the anadromous, parasitic sea lamprey after the Welland Canal was constructed around Niagara Falls. Today, Chinook have almost supplanted coho in the Great Lakes and both are sustained by hatchery production. As has been true in earlier years for all Pacific salmon, coho have been introduced throughout the temperate world, but other than in the Great Lakes, the introductions have mainly been failures.

Locally, adult coho migrate into nearly every stream allowing fish passage, having sufficient cool water, suitable spawning gravel and appropriate habitat for juvenile rearing either on site or downstream. Spawning occurs in Colony and Harrison Creeks; in the Samish River and its major tributary

creeks, the few creeks in the Padilla Bay watershed; and in the Skagit River and its tributary creeks, and in the Sauk, Suiattle and Cascade Rivers and their tributaries. Spawning coho and their juvenile progeny are probably the most widespread anadromous salmonid in Skagit County. There are documented observations of coho spawning in very small creeks and even utilizing what are essentially drainage ditches. For over 60 years, the Washington Department of Fish and Wildlife has maintained a hatchery (Marblemount Hatchery) adjacent to the Cascade River for coho production.

Coho have less diversity in their life history than do Chinook (early or spring run; summer run; and late or fall run). Coho enter fresh water in October through January and spawn within several weeks. The eggs hatch in February to April and juveniles spend at least one year in fresh water while growing from fry to fingerling to parr before undergoing smoltification in preparation for living in the ocean. To some extent, the coho life history resembles the pattern in many early

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A JOURNEY THROUGH SKAGIT COUNTY

SPRING *Planting* Season 2012

By **KATIE LUTZ**

SFEG staff, community volunteers, and students traveled throughout Skagit County in the name of stewardship this spring. We held five community planting parties, five nursery potting parties, nine student planting parties, and one Earth Day event throughout March and April. Whew! All of this work would not have been possible without support from our local community and partners. Haggen's Burlington, Skagit Valley Co-Op, and Farm to Market Bakery made generous donations of snacks and drinks. The Skagit Valley College Welding Department, headed up by Michael Baker, created new planting tools for willow cuttings. The Conway Junior Stream Stewards students would not have been so successful without this crucial assistance. In association with our Earth Day event, we worked closely with Skagit County Parks and Recreation, Rockport State Park, the National Park Service, Puget Sound Energy (PSE), Starbucks, and private landowner Karen Marks. We also worked with the Swinomish Tribe on two of our

student plantings. A big thank you to all!

Our student plantings were in the news quite a bit this year. We worked with all of our Junior Stream Stewards schools, Mount Vernon High School Marine Biology classes, Immaculate Conception 4th, 7th, and 8th grade classes, Emerson High School, and Anacortes High School. One of our most exciting moments was working with the entire 7th grade-almost 300 students-of Cascade Middle School in one day on Hansen Creek. Photos graced the front page of the Skagit Valley Herald and a small article appeared in the Courier Times. Additionally, our planting with Mount Vernon High School on the East Fork of the Nookachamps received coverage in the Skagit Valley Herald.

Our community plantings and nursery potting parties were well-attended this spring with two events exceeding 50 volunteers! We worked upriver past Concrete on Seattle City Light's Granstrom/Sauk River site and all the way down to the Dana property on

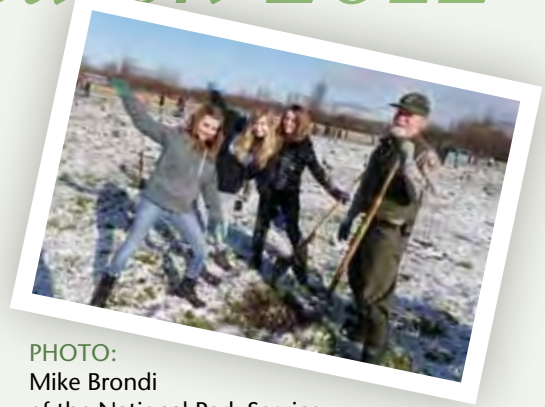


PHOTO: Mike Brondi of the National Park Service helps students plant at Hansen Creek in Sedro Woolley

the Samish River near Chuckanut Drive. Our Earth Day event in particular was a fun day. The weather was gorgeous at Howard Miller Steelhead Park and 59 volunteers helped to remove one ton of ivy and plant 150 native trees and shrubs. Landowner Karen Marks demonstrated how to weave ivy into baskets, PSE gave away goody bags, and a raffle with various prizes from our partners only added to the enjoyment of the day.

Our volunteers did an amazing job this spring and deserve a big thank you for taking time from their daily lives and/or classrooms to become stewards of the watersheds of Skagit County.



Red Flowering Currant, AARON LOGUE

BY THE

NUMBERS

267	537	1,852	5,892	3,164	2,402	2	2,220 lbs.
VOLUNTEERS	STUDENTS	HOURS	NATIVE TREES AND SHRUBS PLANTED	TREE PROTECTORS	PLANTS POTTED IN NURSERY	RAPTOR PERCHES INSTALLED	IVY REMOVED

BOTTOM LEFT PHOTO: Volunteer Terry Williams helps students plant trees in the Nookachamps watershed

BOTTOM RIGHT PHOTO: Anacortes High School students remove a giant ball of ivy on Earth Day

2011-12

Spawner Surveys

By **JOE GEORGE**

Spawner survey volunteers walked dry creek beds for a few weeks of fall until the rains came and the creeks started flowing again, enabling the fish to swim upstream. After a brief wet spell, the precipitation fell below normal, creeks stopped flowing and some were even drying up, leaving adult salmon stranded. Chinook counts are very dependent on the amount of rain; big fish need lots of water to swim up the Skagit tributaries. So counts on Chinook can fluctuate greatly from year to year. Despite the relatively dry fall this year the Chinook count was better than the last couple of years. This year Alder Creek had three Chinook, the first seen since 2005.

2011 was a pink year; we counted over 5,800 pinks, which is less than the previous pink year 2009 (when 8700 were counted) but still lots of fish! Numbers were also lower for other fish. Chum counts were down this year in the Skagit, as in the entire Puget Sound. According to WDFW the reason is that chum escapement counts are low and ocean survival has been low, resulting in low returns. Coho counts were the third lowest we have seen in the last ten years. Kokanee counts for the Samish basin were a little less than half of last year's count. This was expected, since due to funding cuts WDFW went back to stocking Lake Samish with fingerlings instead of smolts.

This year we had 2 interns, Crystal Bogue and Andrew Larson, and 12 volunteers who walked 25 creeks. Andrew Larson did spawner surveys on Granstrom Creek (a tributary to the Sauk River) for the very first time. He counted 7 live coho and 4 redds downstream of the South Skagit Highway. Nothing was seen above the highway culvert. On the downstream end, the culvert sits about six feet above the creek, restricting fish passage. Skagit County is developing plans to replace the culvert which would open up



ABOVE: Chris Brown and his feline assistant documenting Parsons Creek salmon

approximately 900 feet of spawning area for fish above the culvert.

An unnamed tributary to Lake Creek, located by Lake McMurray was surveyed by Crystal Bogue, who saw 66 coho this year. It is the most coho seen on that small stream since 2004. One of our volunteer teams, Chris Brown and Sheila Tomas, was accompanied by a couple of really curious cats as they conducted their surveys on Parson's Creek.






Volunteers Bill and Betty Connor surveyed Ennis Creek near Wickersham.

They had a great time photographing coho and had a great opportunity to see a sea-run cutthroat trout.

This is the second year we have conducted pre-spawn mortality surveys among coho. Pre-spawn mortality is when the salmon dies before spawning, of predation or other causes. Around Seattle, quite a few coho have been seen dying prior to spawning because of various causes. In 2010 of all the carcasses SFEG checked, there were only three coho that died before spawning. This year none of the carcasses we checked died of other causes. SFEG staff and volunteers have also been checking for the absence of the adipose fin on coho and Chinook carcasses. The adipose fin is clipped when fish are released as juveniles to identify hatchery fish. We have been looking for presence/absence of the adipose fin for three years. We do this to see whether hatchery fish are among the ocean-going fish returning to spawn. This year we had a 19% hatchery fish return. For comparison, in 2010 we had 2% and in 2009 we had 5%.

We ended the season with our annual Spawner Survey pot luck dinner. Staff and volunteers shared pictures and many stories. There was great food, great presentations and photos! Chris and David Farrow shared a film they had made of coho spawning in Gribble Chase Creek.

Next season we will need a few volunteers to start in August and help with Chinook surveys on a couple of the creeks we survey. If you are interested please contact Joe George at 360-770-5677. I want to thank everyone who has helped with the 2011 spawner surveys; without our volunteers we could not survey as many creeks as we do. Thank you again.

		LIVE	CARCASS	REDDS
	Chinook	8	51	3
	Coho	415	149	311
	Chum	10	1	4
	Kokanee	466	42	101
	Pink	5841	1783	NA

Coho

CONTINUED FROM PAGE 4

run Chinook (stream type) and in steelhead. Unlike other Pacific salmon, coho generally do not undergo extensive migrations in the open ocean; instead, remaining in coastal shelf waters for two ocean summers before returning to their natal stream (homing instinct) as three year old adults. However, some return at age four after three ocean summers.

A feature of coho and Chinook, one that is generally more common than in the other Pacific salmon, is the occurrence of precocious males called "jacks" (12-16 inches in length). Coho jacks, rarely are there "jills", undergo sexual maturation after one summer in the ocean and migrate into freshwater with the three year old adults. Jacks are capable of fertilizing eggs and do so. As for all Pacific salmon, jacks are semelparous (die even if they do not participate in spawning). The biological basis for certain males to become "jacks" is not fully understood. However, conditions favoring males becoming smolts at a larger size and out migrating earlier may lead to jacking.



Under the Endangered Species Act, coho are now listed as endangered (from threatened) in the California Coastal Evolutionary Significant Unit (ESU) and threatened in the Southern Oregon/Northern California Coasts ESU, the Oregon Coast ESU and the Lower Columbia/Southwest Washington ESU. An ESU is a distinct geographical group of Pacific salmon or steelhead. Coho in the Puget Sound/Straight of Georgia ESU is a "species of concern" or a "candidate ESU" for potential ESA listing as threatened. In the next edition of the Redd, I will present the life history and the distribution of chum salmon.

Become a Member



SFEG IS A MEMBERSHIP BASED ORGANIZATION

If you are enjoying reading this newsletter, perhaps its 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.

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Saturday, September 15, 2012

Edgewater Park • Mount Vernon

ENTERTAINMENT • INTERACTIVE • CHILDREN'S ACTIVITIES
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Events Calendar AND Volunteer Opportunities

Fidalgo Shoreline Academy

June 9 (Saturday)

WSU Skagit County Extension Beach Watchers first "One Day University for Everyone". This event is modeled after Island County Beach Watchers "Sound Waters". For more information about class descriptions, event schedule and registration, please visit <http://fidalgoacademy.eventbrite.com/> or Friends of Skagit Beaches Web site: www.skagitbeaches.org. Space is limited so registration is required. If you have questions regarding this event please email: news@skagitbeaches.org

Rain Garden Advanced Education Workshop with Erica Guttman

June 15 (Friday), 10am-5pm

WSU-NWREC auditorium, 16650 State Route 536 (Memorial Highway), Mount Vernon, WA \$30 (\$20 for Master Gardeners). Space is limited to allow for hands-on exercises. Register at <http://www.brownpapertickets.com/event/238093> or contact WSU Skagit County Extension, 11768 Westar Lane, Suite A, Burlington WA 98233 360-428-4270 ext. 0 Advance materials will be emailed when registration is received

SFEG Stream Monitoring Workshop

June 16 (Saturday), 9am-3pm

Cascades Job Corps, Sedro Woolley

Help to survey the availability of salmon spawning habitat and effectiveness of engineered structures at restoration sites. Learn how to document bankfull width, spawnable gravel, shade cover, pool formation, and other criteria to track changes in salmon habitat availability over time. Registration required.

SFEG Volunteer Appreciation Picnic

June 30 (Saturday), 11am-2pm

Alger

If you're a volunteer, then watch your email or mailbox or your invitation!

Taylor Shellfish-tival

July 18 (Wednesday), 10m-3pm

SFEG will have the educational display as well as a crafty, fishy project for kids to enjoy.

Concrete Youth Activity Day

July 19 (Thursday), noon-4:30pm

Downtown Concrete

SFEG will have the educational display as well as a crafty, fishy project for kids to enjoy.

Skagit River Salmon Festival

September 15 (Saturday), 10am-5pm

Edgewater Park

Details to come! Visit www.skagitriverfest.org for more information.