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Dedicated to Restoring Wild Salmon for Future Generations

## **CALENDAR OF EVENTS & VOLUNTEER OPPORTUNITIES**

December 6-Jan 31: Guided tours at Marblemount Hatchery Saturdays and Sundays 10am-4pm. Trained volunteers will lead tours each weekend during eagle season. If you go, you may want to contact the hatchery in advance for weather conditions: 360-873-4241.

January 28: SFEG Annual Meeting 6-9pm at Hillcrest Lodge, Mount Vernon. Join us for a celebration of the past year's work, recognition of volunteers, landowners and project partners, a silent auction and raffle fundraiser, and salmon barbeque. Don't miss it!

January 29: Storming the Sound: a Regional Gathering of Educators, Maple Hall, La Conner; A one day workshop designed for k-12 teachers, non-formal educators, and students interested in an environmental education career. More info: www.padillabay.gov/storming.

March: SFEG Spring Planting Parties, 9am-noon, Saturdays in March. Check our website in February for details: www.skagitfisheries.org

March 4: "Successful Habitat Restoration in Modified Landscapes" 8:00 a.m. to 5:00 p.m. - Cotton Tree Convention Center, Mt. Vernon. Sponsored by Skagit Watershed Council and Puget Sound Partnership. Registration information will be posted on the Council website www.skagitwatershed.org by January 15. For more information contact Scottie Schneider at (360) 419-9326

March 27-28: Anacortes Salmon Derby; All proceeds go toward the Puget Sound Anglers Scholarship Fund benefiting students pursuing education in fisheries. Opening events Friday March 26th with fishing March 27 and 28. Tickets to go on sale February 1st. Buy your tickets early; only 1,000 tickets will be sold and they will sellout quickly! http://www.anacortessalmonderby.com/

**Volunteer today! Call 360-336-0172** 



# THE REDD

Dedicated to Restoring Wild Salmon for Future Generations

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# **Abundant Salmon in the Skagit this Season**

By Kyle Koch

It's been a wild year for SFEG spawner surveys and we're just mid-way through the season. Chinook? Check. Kokanee? Check. Coho & chum? Check. Pinks? OH BOY do we have pinks; these fish have been somewhat overwhelming to count this year. Usually we use counters to help us keep track of live fish but due to the deluge of pinks that we've seen the counters are actually slowing us down. Over 5,000 were counted on just one survey on the Nookachamps and just as many counted on Jones Creek.



Kyle Koch with **Ennis Creek coho** 

Like last year, it took awhile for creeks such as Alder, Jones, and Hansen to fill up after the very dry summer that we had. Because of this we weren't expecting to see anything because the Chinook tend to be done spawning by then. We did, however, find a healthy, wild female carcass,

not far from the shop and she had indeed spawned. The East Fork of the Nookachamps is so far tied with the

a spawner survey in one day. The most surprising creek has been Parsons, with these largest-of-all-salmon being spotted as late as the first week in November.



**Kyle with Barnes Creek kokanee** 

More kokanee, which are miniature, landlocked sockeye, have been counted this year on Barnes, Finnegan and Mud Creek (tributaries to Lake Samish) than the last 15 years combined. These fast, bright-red salmon were difficult to count due to their sheer numbers. We've you see them you don't realize it, and yes, the average cutthroat is beefier than these guys and gals. Their redds also could fit comfortably in the bottom of a 5-gallon bucket.

Chum arrived somewhat early this year and have had slightly better numbers than last year's record low live counts. Coho were very early this

record of most live Chinook (4) seen on year with adults spotted in mid-October. Most notably coho have been sighted in Klahowya Creek, which has not seen any spawners since one lone individual in 2005.



Volunteer Chris Brown with Parsons Creek coho

So far this has been a very exciting year for spawner surveys, and we thank the hearty volunteers who are braving all weather to keep accurate counts. always heard that they're small, but until Any time wild Chinook are documented on our surveys it's a big deal, and this season has delivered. Hopefully in the years to come we'll be blessed to see even more.

## **INSIDE THIS ISSUE:**

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### What is a 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 ferilized eggs with gravel from upstream and the resulting nest is called redd.

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

## **Board of Directors:**

Bruce Freet, President Jeanne Glick, Vice President Dan Ballard, Treasurer Ned Currence, Secretary Deene Almvig **Kurt Buchanan Steve Hopley** Jim Johnson **Chris Kowitz** Robin LaRue **Boshie Morris** 

### **BOARD MEETINGS**

The SFEG Board meets the 4th Tuesday of each month at Skagit Valley College. The public is welcome to attend. Call our office at 360-336-0172 for details.

### Staff:

Alison Studley, Executive Director Sue Madsen, Restoration Ecologist Lucy DeGrace, Outreach Coordinator MaryMae Hardt, Finance Manager Katie Mover, WA Service Corps Outreach Assistant

## **Field Staff:**

Joe George, Restoration Technician Kyle Koch, Restoration Technician Andy Beckman, Restoration Technician Bengt Miller, Restoration Technician Neil Vargas, Restoration Technician Sarah Davis, WA Conservation Corps Restoration Assistant

Newsletter Editor, Lucy DeGrace

## From the PRESIDENT

First of all, the "bottom line" is that the Skagit Fisheries Enhancement Group is making a difference by restoring salmon habitat! A sample of several possible measures for success reveals:

In our strategic focal area of Finney Creek, water temperature and sediment loads have declined as our efforts have moved the stream flows back into a channel with pools, runs, and riffles. What a pleasure it was to see several salmon species spawning there this fall.



Bruce Freet. President

Our spawning surveys are finding higher numbers of returning salmon than usual in most of the Skagit and Samish River tributaries.

While we could certainly use more funding, our Junior Streams Stewards educational program is reaching more public schools and children

While we need your membership and donations, ninety percent of our funding goes directly into salmon restoration projects and seventy-five percent of our funding comes from grant requests our staff has written.

And consider our enthusiastic volunteers, who on Saturday, November 14th, planted over 1,000 native trees for riparian shade and bank stabilization at Howard Miller Steelhead Park.

Looking within SFEG, our Relocation Committee has looked at several properties, but is still seeking a new office, shop, and nursery facility and hopefully we can find it in 2010. Again, if you are aware of any rental properties that would enable us to combine our operations, please contact us. Staff-wise, I am excited to inform you that we did hire a Restoration Ecologist, Sue Madsen. As a fluvial geo-morphologist with 15 years of experience, she brings a unique set of salmon habitat restoration skills to serve us and contribute to our collaboration with partner organizations.

Looking beyond SFEG to give you an update on the Pacific Salmon Stronghold Conservation Act (Senate Bill, S. 817, and House Bill, H.R. 2055), both Bills have been 'Referred to Committee'. As I discussed in the last Newsletter, this Act will create a proactive U.S. policy to focus federal support for public and private incentive-based efforts to protect the healthiest remaining salmon ecosystems ... a network of our most abundant, productive, and diverse salmon river ecosystems or 'strongholds'. Earlier this year, it was endorsed by the entire West Coast Senate delegation (AK, WA, OR, and CA). In a Congressional Hearing, the National Oceanic and Atmospheric Administration (NOAA) supported this effort. The Wild Salmon Center organized a scientific Steering Committee, who gave the Skagit River watershed the highest rating as a potential 'stronghold' in the Pacific Northwest Region. While these Bills may or may not become federal law, we can use the 'stronghold' rationale to strengthen our collaborative efforts and related grant proposals now.

2009 Membership

Now is the time to make your 2009 membership contribution. Membership income plays a vital role in funding our education and outreach programs as well as our volunteer monitoring programs. Producing and mailing this newsletter costs money too. Please consider becoming a member or renewing your membership today.

## Please use this form to renew your membership or become a new member today.

MEMBERSHIP INFORMATION:		MEMBERSHIP LEVEL:
Name	_ VOLIDS 4	□ Individual \$20
Address	YOUN	☐ Family/Household \$3
		□ Supporter \$100
Phone		☐ Benefactor \$500
Email	TO PROTECT	□ Other <sup> </sup>
Email	TO PROTECT to S.F.E.& and send to P.O. Box 2497, Mo	□ Other <sup>\$</sup>

# Thanks for a Great Fall Planting Season!

By Katie Moyer

A huge thank you to all of our wonderful volunteers for making this a great fall planting season! Throughout the fall we had five planting parties and one school group planting (thanks to the helpful students from Mount Vernon Christian High School). All of our events were located on various floodplain areas of the Skagit River (as well as the Cascade River floodplain up at the Marblemount Boat Launch). The vegetation planted will help to stabilize the riverbanks, filter run-off, and provide leaf litter to feed the aquatic insects that are in turn eaten by juvenile salmon. Perhaps in the future after the trees mature they will fall and be carried to the river where they will provide large woody debris that can serve as great habitat for salmon, both young and mature, trying to hide from predators.

Our planting party grand totals include 140 volunteers over the course of the fall who collectively contributed a total of 370 hours of hard work. Furthermore, they planted a very impressive 3,690 native trees and shrubs! Many thanks also to our partners: Skagit Land Trust, US Forest Service, Skagit County Parks and Recreation, Skagit County Parks Foundation, The Nature Conservancy, and property owners Ger Van den Engh and Barb Trask. Meanwhile Haggen, Food Pavilion, Rexville Grocery, Calico Cupboard, Krispy Kreme, Starbucks, and Skagit County Healthy Communities Project were kind enough to donate a whole host of tasty snacks for our volunteers.

Congratulations all, and thank you again for helping us to improve salmon habitat. We look forward to seeing you again in the spring!



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## **Local Students Dive into Their Watersheds**



Allen 8th graders meet coho salmon

This year SFEG is engaging 15 classes at five school districts in watershed studies through the Junior Stream Stewards program. Nearly 350 7th and 8th graders at Concrete, Cascade, Conway, La Conner, and Allen schools have been

touring their watersheds, participating in salmon dissections, and testing stream water quality this fall. We're pleased to see Junior Stream Stewards grow a little each year.

This year, retired WDFW fish biologist and SFEG board member Kurt Buchanan, and WDFW habitat biologist Bob Warinner visited classes and dissected coho salmon from the Marblemount Hatchery. While we heard a lot of "Eeeeww, gross" we also heard a lot of "Wow! That's cool!" Using all senses to explore one's watershed and everything in it helps to build a real understanding and appreciation for the natural world. Most of these students now understand salmon a little better than they did a few months ago.

On watershed tours, students performed simple water quality tests and visual habitat assessments based on what they've learned so far about salmon habitat requirements. In the words of one student "I never would have known all this if I hadn't been on this field trip!"



Conway 7th graders test pH at Fisher Creek

Upon seeing salmon streams, several students remarked that they had previously thought of these water bodies as mere ditches. The main goal of Junior Stream Stewards is to foster a sense of stewardship for our watershed. Getting students out of the classroom is a key component of Junior Stream Stewards, as many of these epiphanies are just not likely in



Burlington Alternative High School students found coho fry d

a classroom setting. The first step is awareness, and these students will all build upon this new knowledge by completing restoration projects in the spring.

In addition to working with Middle School students through Junior Stream Stewards, SFEG



Danny Rambo's Cascades Job Corps students observe macroinver

staff, volunteers, and interns have worked with several other school groups this fall. Danny Rambo's Cascades Job Corps students learned about salmon habitat restoration through a field trip to nearby Hansen Creek. Here they collected macroinvertebrates and performed water quality tests. David Dow's **Burlington Alternative** 

High School students are using Hansen Creek as an outdoor classroom this fall, and on one of their first visits documented coho fry in the creek. Brennan Van Loo's Mount Vernon Christian High School science classes helped plant native trees along the Skagit River and then toured the Marblemount Hatchery. And Celia Unsell's Skagit River Schoolhouse home school group learned about salmon habitat with a field trip to Lorenzan Creek.

We'd like to thank volunteers Kurt Buchanan, Bob Warinner, Jim Johnson, Carol and Dean Schwartz. and Lyn Bishop for assisting with classroom and field lessons, as well as Jenny Baker from The Nature Conservancy, and staff from North Cascades



**Mount Vernon Christain High School** students watch coho salmon

National Park and The Swinomish Tribe for assistance on field lessons. We look forward to diving back in after the holidays and planning our restoration projects.

## Thank You Junior Stream Stewards Funders!

Junior Stream Stewards is made possible this year thanks to several generous funders. In addition to the wonderful school staff and teachers, we have to thank the funders, without which the program would not happen. The Washington Department of Fish and Wildlife's Aquatic Lands Enhancement Account provided funds for materials, and the donors listed here have contributed over \$15,000 toward the implementation of the Junior Stream Stewards for this school year.

- Fidalgo Fly Fishers
- Lakeside Industries
- Lucky Seven Foundation
- Paccar
- Shell Puget Sound Refinery
- Sierra Pacific Foundation
- Tesoro Companies
- Tulalip Tribes Charitable Fund

And several private individuals

# **Welcome New Americorps Volunteers!**

Hiya! My name is Katie Moyer and I am the new WSC Outreach Assistant. I hail from the exotic hamlet of Conway, WA, and have been enjoying deepening my understanding of the Skagit River and its watershed. I graduated from Whitman College last spring with a B.A. in biology and music. While much of my undergraduate work centered on Central African snakes, I am really enjoying stream ecology and working on a topic that is a little closer to home. While I have vague notions about further education in museum studies or stream ecology after my AmeriCorps term is over, for now I will content myself with the joy of catching aquatic bugs with high-schoolers, dicing salmon for middle school students, planting trees, and all the other perks of working for SFEG. Working with great volunteers and getting kids outside to teach them about our

forward to an exciting year!



Hello! My name is Sarah Davis and I am an individual placement with the Washington Conservation Corps. I will be working with SFEG as a restoration technician assistant for the next year. I am originally from Ohio, but moved out here a couple years ago to be close to family. I have fallen in love with Washington State and can't imagine ever living anywhere else! I served on the Washington Conservation Corps, Skagit County crew last year. We spent six months surveying the Skagit River tributaries for a non-native invasive, knotweed. Through this work I was able to become very familiar with Skagit County. I have always been a lover of the great outdoors. This past summer was filled with lots of hiking, camping and a trip to Mount Saint Helens! When I'm not outside I spend my time reading and cooking. I also volunteer at the Sean Humphrey House in Bellingham. I have really enjoyed working with SFEG so far and I am

extremely excited about the opportunity to work with them for the next year!

# **New Restoration Ecologist Hired**

In December, SFEG proudly welcomes Sue Madsen as the newest member of our staff. Sue was hired to fill the newly created position of Restoration Ecologist that will lead our habitat restoration programs. SFEG performed an exhaustive search receiving 50 applications from highly qualified individuals around the country and even several from out of the country as well. We are very pleased with the qualifications Sue brings to help restore Skagit salmon populations. Sue is a professional fluvial geomorphologist/ hydrologist with over 15 years of experience working on watershed and salmon related projects. She has a master's degree in Geomorphology from Colorado State University and two bachelor's degrees from the University of Montana in Forest Hydrology and Geography with a Watershed Management focus. Sue most recently worked as a senior scientist for R2, a small private consulting firm specializing in fisheries science and engineering. Prior to this work she worked for the Sauk-Suiattle Indian Tribe and the City of

beautiful watershed has been a blast; I am very much looking

Bellingham. A resident of Skagit County, we are excited to have a local scientist with Sue's depth of experience and knowledge to help mobilize landowners and community members to participate in our restoration efforts. Please join us in giving Sue a very hearty welcome to the SFEG community!



Puget Sound is in trouble. You are the solution. Together we can fix it.

Visit http://www.pugetsoundstartshere.org to learn how to help in your yard, with your car, around your dog, and in your home.

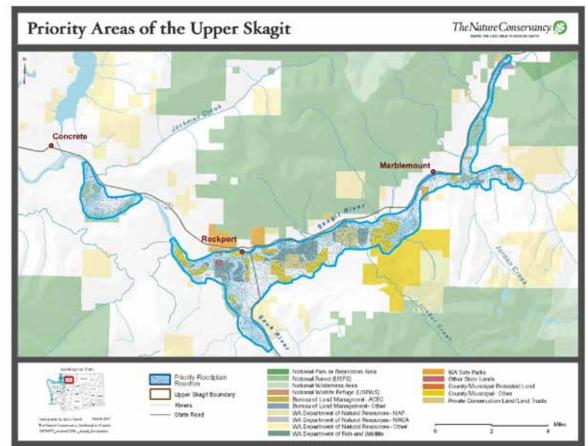
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You may have noticed over the last several years that more and more of SFEG's volunteer planting events are being held on properties located in the floodplain of the Skagit River. According to the Skagit Chinook Recovery Plan, the floodplain of the Skagit River and its major tributaries (Sauk, Suiattle and Cascade Rivers) are a high priority area for protection and restoration actions in order to recover critical habitat for threatened Chinook salmon. There is a coordinated effort to protect floodplain habitat in the Skagit Watershed. Many floodplain parcels have been permanently protected through public and private ownership by The Nature Conservancy, US Forest Service, Seattle City Light, Skagit Land Trust and others. Two Inventories and Assessments were completed by the Skagit Land Trust and The Nature Conservancy in 2003 to prioritize floodplain land for permanent protection in the Middle and Upper Skagit. However, many floodplain parcels are in need of restoration actions, not just protection, in order to provide quality habitat to salmonids.

SFEG is working with these land protection partners to conduct restoration efforts on protected lands and assist with the larger effort of protecting and restoring floodplain habitat throughout the Skagit

watershed. The sites we are working on are located in dynamic areas of the Skagit River Floodplain near major tributary junctions (Jackman Creek, Sauk River, Diobsud Creek and Cascade River) which are know to be hotspots for salmon and biological diversity. At the Larsen Memorial property, SFEG restoration technicians removed three 24-inch diameter metal culverts and associated fill from three locations along an abandoned road on the site. These efforts reconnect off-channel habitat in the channel migration zone of the Skagit River. Projects also include removal of invasive species, large woody debris placement, and planting native species. Up to this point in the fall planting season, volunteers and staff have planted over 6,000 native trees and shrubs on seven sites.

According to the Skagit Chinook Recovery Plan, floodplains provide important freshwater habitat for all Chinook salmon fry, but more expressly for those life strategies that depend on freshwater habitat for extended rearing such as parr migrants and yearlings. Adult Chinook spawn in the mainstem of the Skagit, Sauk, Suiattle and Cascade Rivers. The Upper Skagit River contains the highest density of Chinook spawning areas in the entire Skagit watershed. The majority of the Chinook, pink and chum salmon that spawn in the Skagit River system spawn in the Upper Skagit area (from the Sauk River confluence to the dams operated by Seattle City Light). The off-channel sloughs and wetlands located within the floodplains provide critical rearing habitat for Chinook and coho. Unlike our planting events along small streams, you often can't even see the river from some of these floodplain sites. Although the benefit of planting these trees for salmon and the riverine ecology may seem a bit murky, it becomes clearer when you consider the functions that a healthy floodplain performs.



## A naturally functioning floodplain:

- provides shade and moderates stream temperature, increasing the capacity of the water to carry dissolved oxygen
- \* sequesters carbon in native vegetation and organic material in soils
- \* provides food and habitat for numerous species that utilize riparian areas
- improves water quality through sediment and pollutant filtration during rain and flood events
- ★ retains water during heavy rain events, slowly releasing moisture and buffering flood levels
- provides a source of woody debris, adding to habitat complexity and food/nutrient density in the aquatic environment
- \* slows over-bank water velocity, reducing erosion and shoreline damage during flood events

Simply put, cooler water temperatures allow salmon to breathe more easily, while decreasing sedimentation and pollutants increase survival of salmonids. Woody debris in and along the creeks provides more locations for salmonids to rest or hide from predators, and a source of insects and food from the decay of the vegetation.

The floodplain could also be described as the channel migration zone. The channel migration zone is the dynamic lowland area in which the river moves from year to year with high water events. It is important to have this whole migration zone (or floodplain) functioning as good habitat, as in any given year the channel could occupy any part of this lowland area as the river changes course during high water events. Although floods are often damaging to human infrastructure, floods serve an important role in creating and maintaining floodplain structures such as pools, islands, bars,



oxbows, side channels, and off-channel ponds. Flooding events act as a connection between the river and floodplain allowing for the exchange of large woody debris, sediment, and nutrients. We are once again moving into the season where these connections become most clear.

# Save the Date for SFEG's Annual Meeting and Silent Auction!

Please save the date for the SFEG Annual Meeting on **Thursday, January 28, 2010**; join us for a delicious salmon barbeque, a silent auction fundraiser, a look back at accomplishments of 2009, and project partner and volunteer recognition. Look for an invitation in your mail (or email) in early January. We hope to see you there!

## Silent Auction Donations

SFEG's Annual Meeting will feature a Silent Auction to help raise funds for our programs. Among the offerings are some wonderful items from local businesses and artists. If you have an item you would like to donate, please contact Lucy DeGrace at 360-336-0172 or ldegrace@skagitfisheries. org. Items need to be received in our office by January 21, 2010 to be included in our Auction Program.

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