

# Restoring Salmon Habitat in Finney Creek

By Alison Studley

As a major tributary of the Wild and Scenic Skagit River, Finney Creek has a significant influence on the water quality and salmon habitat of the lower Skagit. Historically, Finney Creek provided important habitat for eight salmonid species (Chinook, coho, chum and pink) and steelhead, bull trout, cutthroat trout and rainbow trout. However Finney Creek currently suffers from incredibly high water temperatures during the summer months which can kill juvenile salmon.



**Juvenile cutthroat salmon were observed during the Finney watershed tour on September 13**

This summer Skagit Fisheries Enhancement Group partnered with the Mount Baker-Snoqualmie National Forest and the Hampton Tree Farm to restore instream habitat for threatened salmon runs on Finney Creek. This project, along with other Finney Creek restoration efforts, could play a key role in the salmon recovery process for the Skagit River. The Mount Baker-Snoqualmie National Forest designed the project and provided all the logs needed for the project. Access to the stream site was provided by Hampton Tree Farm, which owns the land on which the project is taking place, and by Goodyear Nelson Timber which owns the staging areas.

The project involves installation of logs and rocks to form log jams in a 1.6 mile stretch of Finney Creek between river mile 1.6 and 3.4. Finney Creek has been plagued by increased sediment loads due to rapid logging of the hillsides during the 1970's and 1980's. Strategic placement of log jams will reinforce existing small log jams and create new log jams that will help trap sediment, create pools, and decrease water temperatures to make a healthier environment for salmon and resident trout. The project is using logs to reinforce and resemble natural accumulations of woody debris. Logs are being cabled to rocks within each complex to increase the mass of individual logs and to duplicate the mass that would have occurred naturally with large tree recruitment. In late June 120 logs and 160 rocks were flown in by helicopter to Finney Creek. The logs are placed to reinforce and create log jams at 27 sites within the creek. Technicians from the Skagit Fisheries Enhancement Group then spent several weeks cabling these logs and rocks together to create large log jams.

The new log jams will add complexity to the channel, help to decrease the channel's width-to-depth ratio, and accelerate natural pool development and stream bank formation. Natural riparian vegetation will return once the channel decreases in width-to-depth ratio. The net effect will reduce stream temperature and improve fish habitat. Temperature reduction will be accomplished by re-establishing large woody debris; increasing sediment storage, and recovering riparian areas. Salmon habitat will be improved throughout the 1.6 mile project reach, as well as possibly impacting the lower Skagit River.

Funding for this project is provided by grants from the Department of Ecology, Ecotrust and the NOAA Restoration Center, National Fish and Wildlife Foundation's Community Salmon Fund, and the US Forest Service. Total cost for this year's project is over \$160,000. Past year's projects costs: were \$400,000 for projects done in 1999, 2000, 2003, 2005, and 2006.

This restoration effort builds upon the success of earlier projects in which the Skagit Fisheries Enhancement Group partnered with the Mount Baker-Snoqualmie National Forest, the National Park Service and local timber owners. To date 1,880 logs have been added to the stream to create 187 log jams enhancing over 8.2 miles of habitat from Upper Finney Creek to Lower Finney Creek (from river mile 21 to 1.6).

Monitoring of the Upper Finney Creek project, implemented in 1999 and 2000, has indicated that the project's short term goals are being met. The stream channel has started to change shape and water temperature has been reduced downstream of the upper project. This year's project is a continuation of this watershed restoration effort. The Forest Service is also working with the Skagit Conservation District on other grants that are decreasing the sources of sediment in Finney Creek. These grant funds have been used to treat over 82 miles of logging roads by decommissioning, improving and upgrading roads throughout the Finney Creek watershed.

Less than 20 years ago, natural resource agencies (including the Forest Service) were cleaning logs out of stream systems as a common practice to improve conditions for salmon. Today's research has shown that logs create valuable habitat for salmon, and are a major physical feature of rivers and streams that help control water temperature, and regulate flow conditions and sediment movement. With the listing of Chinook salmon on the Endangered Species list, the Finney Creek log jam projects illustrate a unique partnership between a federal agency, timber companies and a local community group to promote the recovery of threatened salmon species.



**SFEG field crew secure logs to boulders as part of the Finney logjam project.**

Outreach and education efforts have been ongoing in the Finney Creek area as well. This summer SFEG held a workshop for small forest landowners in Finney and surrounding areas. Resource professionals from the Washington Department of Natural Resources, Department of Fish and Wildlife, Skagit Conservation District, and WSU Extension discussed wildlife habitat, management techniques, and fish passage issues, among other topics. All of these agencies have programs available to assist forest land owners in

managing healthy forests for harvest as well as wildlife value. A watershed tour was also held this summer. This guided tour allowed community members to explore parts of the Finney watershed not always accessible to the public. Participants gained awareness of the character of the watershed and of the challenges that salmonids in this system face. Volunteers also helped SFEG and Park Service staff gather samples of aquatic macroinvertebrates, which are good indicators of water quality in freshwater systems.

Everyone who knows Finney Creek loves the area for its superb recreational opportunities. Certain recreational practices can be harmful to salmon. Driving an ATV or truck through the creek or through a gravel bar can crush salmon eggs and introduce excessive sediment into the clear water that salmon need to survive. Building dams can disrupt the migration of juvenile and spawning salmon. Please keep these things in mind and help us protect the remaining salmon populations struggling to survive in Finney Creek.



**Volunteers collect samples of aquatic macroinvertebrates to help monitor water quality in lower Finney Creek.**

# From the President

*By Deene Almvig*

Ennis Creek, a tributary to the upper Samish River, is located north of Sedro Woolley on State Highway 9 near the village of Wickersham at the Skagit/Whatcom county boundary. Years ago, Ennis Creek was diverted into a ditch along the side of an adjacent road in hopes of alleviating a flooding problem. In the process, natural salmon-rearing habitat was destroyed and productive coho spawning areas severely compromised.

In 2005, SFEG with Whatcom Land Trust and Whatcom County formulated a plan to relocate the creek into its historic location in order to avoid emergency dredging of the ditch and its spawning redds.

The results were impressive; last fall, while coho returns have been crashing elsewhere, approximately 1,000 coho spawners were counted in the creek and late this summer several board members toured the project. What they saw was a truly amazing conversion of a roadside ditch transformed into a beautiful, naturally-appearing creek full of coho fingerlings. It was, without a doubt, a very heart-warming moment! Check it out if you are ever up that way.



**The newly installed bridge at Ennis Creek**

I also wish to report the nutrient enhancement project has begun for this season. A few weeks ago, Fred Partington and I pitched 218 Chinook carcasses (almost two tons) into upper Finney Creek.

## **Amphibians are us!**

Lately we've been finding lots of amphibians at restoration sites. Among those we've encountered are a rough skinned newt and a long toed salamander (with yellow stripes) at Howard Miller Steelhead Park, and a juvenile Giant Pacific salamander at Finney Creek (in the aquatic phase). Amphibians are a good indicator of healthy habitat, so these little guys are a welcome sight!



**Larval Pacific Giant Salamander**



**Long Toed Salamander**



**Rough Skinned Newt**

## Restoration and outreach at Howard Miller Steelhead Park

*By Kara Bloch*

At the recent Skagit River Family Fest held at Howard Miller Steelhead Park, local storyteller Jim Harris talked about growing up along the Skagit River. He recalled how he used to walk down to the river and see it so full of salmon he could nearly grab them with his hands. During the evenings he would float out on a log, close his eyes and listen to the salmon as they were swimming up the river.

These images are much different than what we see today, yet there is still a unique value to this area. Over the past few years, SFEG has been working to restore native habitat by controlling invasive plants and planting native trees and shrubs on the banks of the river and the off-channel slough. This area has been colonized by invasive species such as reed canary grass, Himalayan blackberry and morning glory, and lacks the woody riparian vegetation needed for salmon habitat. Lack of bank stabilizing vegetation has resulted in erosion and excessive sediment to the salmon bearing waters of the Skagit River. This area also provides critical rearing habitat for Chinook and coho and spawning habitat for chum. SFEG hopes that over the years these restoration efforts will restore native riparian vegetation, combat against invasive species and reduce the erosion of sediments along the Skagit River.

The proximity of the restored area to the parks' camp ground and the community of Rockport opens up opportunities for outreach and education. As part of this outreach effort, SFEG installed three educational signs along the river side path. These signs teach about the importance of salmon to the ecosystem and how they supply food to wildlife, such as the bald eagle, as well as nutrients for the soil. Visiting campers and locals alike can walk the path and learn why a healthy salmon population is so crucial to the river and how imperative it is to protect and restore their habitat.

Howard Miller Steelhead Park is a focal point for local history, community involvement, public education, wildlife viewing, implementation of riparian restoration and important salmon habitat. It encompasses the memory of what used to be, the reality of what exists today and the possibility of the future. This is an ideal setting to practice restoration techniques and to raise awareness about the importance of salmon to wildlife, the Skagit River and to the entire Skagit River community.

## ***Get on the 2008 Skagit Watershed Letterbox Trail!***

*Pete Haase, Skagit Conservation Education Alliance*

**The 2008 Skagit Watershed Letterbox Trail is in full swing! There are 13 sturdy plastic, weatherproof, decorated tubs hidden in interesting locations from one end of the Skagit watershed to the other .. Newhalem to Washington Park. Each tub is sponsored by an environment-oriented organization and contains some educational material about the organization and the unique site where it is located. There is also a “key” or “secret” word appropriate to the site along with a notebook and either a stamp or some stickers.**

**The Skagit Fisheries Enhancement Group sponsors letterboxes at Howard Miller Steelhead Park in Rockport and also the WDFW Hatchery at Marblemount!**

**Letterbox “Questors” take their own personal notebook and stamp (or stickers) and follow clues to find the tubs. Clue sheets are available from local libraries, the Skagit PUD #1 office, and the visitor centers for the North Cascades National Park. Clues can also be accessed on line at [www.scea.homestead.com/ltrbox.html](http://www.scea.homestead.com/ltrbox.html) or [www.atlasquest.com](http://www.atlasquest.com)**

**When a letterbox is located, the Questor “stamps up” by putting their stamp or sticker in the tub notebook, and the tub stamp or sticker into their personal notebook. It’s fun to see the other notebook entries (the boxes have been visited often) and to leave a few comments too. This is also a nice time to review the educational material provided and to enjoy the site ... there are some great locations ... so plan to stay for awhile!**

**The Letterbox Trail started in late July, 2008, and will stay “up” until late October. A party/recognition celebration will be held after, where the boxes, notebooks, and questors can come together and share experiences and some good food and fun. We’ll see who found all the tubs and have a game with the “key” or “secret” words. Watch the newspapers for time, date, and location.**

## *A Busy Summer of Education and Outreach*

*By Danaan DeNeve*

SFEG has been busy this summer, with volunteer projects and educational events, Sammy Salmon, and fish printing! For those of you who haven't had the chance to participate in our recent activities, here's a sample what we've been

up to:



**Rick Haley (center) of Skagit County Public Works, shows volunteers how to measure water quality in Lake Creek.**

On June 21, we took folks on a Nookachamps watershed tour. We had a nice day, and a good turnout. We viewed the major creeks that feed into the Nookachamps and several habitat restoration projects. Andrea Xaver, president of the McMurray Historical Society gave us a tour of the McMurray cemetery, the original cemetery of the community at Lake McMurray, and we stopped at Lake Creek where Rick Haley of Skagit County Public Works demonstrated the County's methods of water quality testing. We observed juvenile cutthroat trout and coho salmon here as well.

Concrete Activity Day, on July 31, was a new event geared towards middle school students, with educational activities to get kids excited about learning. We took a tank of baby coho salmon from the Marblemount Hatchery, and quizzed some of last year's Junior Stream Stewards students about salmon.

On August 4, we took a group of about 23 students from the Seattle Archdiocese out to do a stream clean-up at Logan Creek near Haggan in Mount Vernon. Items recovered from the stream in our three hour event included a plastic lawn chair, a folding chair, a pair of jeans, and a bike! Thanks to Haggan for the use of their dumpsters, where we deposited said debris plus a dozen bags of additional garbage.

The Letterboxes are a pilot project, similar to geocaching. In partnership with Skagit Conservation Education Alliance, several organizations have hidden boxes containing information and stamps in different areas near the Skagit River. SFEG has created and maintained two of these boxes. Look on our website ([www.skagitfisheries.org](http://www.skagitfisheries.org)) for more information about our two letterboxes, and the other ten. It's an educational scavenger hunt for all ages!



*Participants of all ages learned about people and animals of the past and present at an archeology station at the Skagit River Family Fest on September 6th*

**On September 6 we had a great turnout for the Skagit River Family Fest, at Howard Miller Steelhead Park. Nearly 200 people came to participate in activities such as making salmon life cycle bracelets and fish printing, and to learn about fly fishing, archaeology, our restoration project along the river, and other river-related topics. The Lunch Box brought their mobile grilling set-up and provided a delicious burger lunch for all who attended. The event was serenaded by the Darrington bluegrass band Finney Creek, and the event was capped off by a story telling session by Jim Harris.**

**All this has kept us pretty busy this summer, and now we're switching gears for fall planting season. If you would like to participate in one of our fall plantings, please contact Lucy DeGrace by e-mail at [ldegrace@skagitfisheries.org](mailto:ldegrace@skagitfisheries.org), or by phone at (360)336-0172.**

## What's been happening at SFEG?



*SFEG bid farewell to Field Technician Dwayne Massey at his retirement celebration in July*

*Perry Welch, SFEG Project Manager*

The habitat restoration program has been kept busy by steady work load and staff turnover, while we hold the fort during Alison's maternity leave.

In May long time crew lead Kevik Rensink took a new position with Puget Sound Energy. At the time we had been planning on capacity building because we knew that Danny Cain was going on a long bike trip and long time crew veteran Dwayne Massey was planning on retirement in July. We had interviewed three candidates for field crew positions and ended up hiring all three candidates including Andrew Beckman, Kara Bloch and Mike McCain.

Unfortunately, this summer we had to say an early goodbye to Mike as we learned that his parents required his special care back home in San Diego. Fortunately Kyle Koch, who has graduated nicely from his Washington Conservation Corps position with SFEG, has been hired on full time starting in October. Led by now veteran crew member Joe George, the new staff have experienced a variety of activities this summer.

Recent accomplishments include placement of 27 log jams on lower Finney Creek to moderate temperatures, and removal of an abandoned road on a Nature Conservancy property to address a fish passage barrier. SFEG also rescued thousands of stranded coho salmon at Red Cabin Creek for the Department of Transportation while they design a new bridge crossing. We sampled salmonids at the mouth of Dry Slough for the Skagit Conservation District. We have also cleared many acres of blackberries and conducted additional mowing and riparian site maintenance on US Forest Service properties. We removed 2,000 feet of old fence on Seattle City Light Property as part of a Natural Resource Conservation Service Wetland Reserve Program project on Anderson Creek. We are also helping Skagit County to implement a CREP project on Hansen Creek.



*SFEG staff document juvenile salmon and other life in Dry Slough.*

There is more planned for this instream season including additional large woody debris placement, fish barrier bridge placements, and more log

placement at Ovenell Slough to catch large woody debris on US forest Service Land. We are currently active on about five USFS parcels along the Wild and Scenic corridor on the upper Skagit Floodplain, Sauk and Cascade Rivers. We are implementing riparian projects with the Nature Conservancy along the upper Skagit, Sauk, and Cascade Rivers. I am very excited about re-invigorating the Howard Miller Steelhead Park Riparian Restoration project with new funds from the US Fish and Wildlife Service. We have recently been awarded a new grant with the Department of Ecology to design and build a restoration project on Day Creek, and will be coordinating more outreach events in the Day Creek watershed as well.

We've scheduled a Spawner Survey Workshop for October 4 for those volunteers interested in adopting a stream to walk weekly this winter. We recently scheduled five volunteer work parties for this fall so please see the schedule for volunteer opportunities at Ovenell Slough, Jackman Creek, Skagit Floodplain at Elysian meadows, and Cascade River boat launch. We are going to need some support from our up river friends this fall so I hope to see you out in the field.

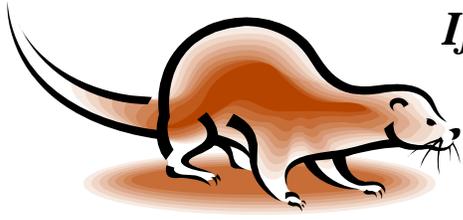


*SFEG welcomed Kara Bloch and Andy Beckman to the field crew in May, and said goodbye to longtime Field Crew Supervisor Kevik Rensink.”*

***Welcome Baby Zak!***

The SFEG family got a little bigger this summer. Executive Director Alison Studley and husband Drew Fleshman welcomed Zakary Dylan Fleshman, born at 1:06 am on July 9th weighing in at a *staggering* 10 lbs 2 oz! Please join us in wishing them all well.





## *If it eats salmon.....*

It's not a beaver! Contrary to popular belief, beavers eat plant material, and not fish. However, another local aquatic mammal loves a tasty salmon as much or more than we do. The North American River Otter can be found across almost all of North America, anywhere with easy access to an abundant source of clean, fresh water. This includes ponds, lakes, rivers, and streams---even the ocean, when it's near a source of fresh water. Because of this, the River Otter is often mistaken for its cousin, the Sea Otter. River Otters are also sometimes confused with other mammals that spend time in and near waterways such as nutria, muskrats, and beavers. North American River Otters and Sea Otters are the only otters (of 13 species worldwide) that are native to the United States and Canada. The North American River Otter is the otter that lives in the Pacific Northwest, even the ones you see along the coast. Sea Otters, which can still be seen in British Columbia, Alaska, and California, were hunted to extinction along the Washington coast.

One reason that it is important for us to protect otters is because all species of otters are considered to be *indicator species*. An indicator species is a species that is sensitive to changes/contaminants in their habitat so that their health level indicates the general health of the environment in which they live and also indicates the general health of the surrounding species. This means that if the otter population in a given area is flourishing, then we know that it is a healthy, diverse habitat that will support all sorts of other critters. It is also important to protect otters for other reasons too: they are highly intelligent, very curious, and one of the very few other species that seems to actively enjoy play as adults.

In many parts of the US, the North American River Otter was in danger of extinction (and some populations were completely wiped out) from over-hunting, pollution (i.e.DDT), and habitat loss. Many states participated in reintroduction programs, and the river otter is experiencing a population come-back.

If you want to see one of these bright, fun-loving, giant furry Slinkies, the easiest thing is to go to the Seattle Aquarium or Forest Park Zoo. But, if you want to observe one in the wild, one of the places where you can consistently see them is from Chuckanut Drive. They can frequently be seen there playing near and along the shoreline.

Some fast facts about the North American River Otter:

- They are generally 3-5 feet long and weigh from 10 to 33 pounds.
- Their feet are webbed between all the toes, and very strong, with strong claws. The webbing makes swimming much more efficient, and the claws are used for holding on to prey, climbing (yes-they *do* climb, sometimes even up trees!), and moving rocks and things to find food.
- Unlike most aquatic mammals, otters do not have a fat layer to keep them warm in cold water, so their fur must do the job instead. Otters have to groom their fur frequently in order to keep it clean enough to hold the air pockets that insulate them. Keeping a river otter warm

requires it to have almost 58,000 hairs per square centimeter! They also have two layers of fur (like a husky), coarser guard-hairs that keep water out, and finer under-hairs that keep air in.

- They eat fish, mollusks, crustaceans, reptiles, amphibians, birds, insects, and small mammals.
- North American River Otters are very social animals. They tend to travel in family groups consisting of a female and her pups, often joining another female who also has pups. North American River Otters do not tend to pair-bond, but males will help to raise the pups if given the opportunity. Though females will often not let any other animals (including other otters) near the pups until they are about three months old, these otters do not do well alone for long periods of time.

*Danaan DeNeve*