

# SalmonGram

Committed to Restoring South Sound Salmon Habitat

*Spring* 2007

### **Finding Forage Fish:**

### **Applications of Surf Smelt and Sand Lance Spawning Habitat to Salmon Recovery**



Every winter, forage fish take to South Puget Sound beaches in droves for a massive annual spawning event that will last several months. Like salmon, the lesser known forage fish species of Puget Sound have unique life histories. South Puget Sound

supports winter-spawning populations of forage fish, such as surf smelt and sand lance. Why, you may ask, is a Salmon Enhancement Group writing about surf smelt and sand lance?

The health and survival of Puget Sound salmonids is intricately linked to surf smelt, sand lance, and herring populations as major food sources for salmonids rearing and foraging along Puget Sound shorelines. Recently, recovery attentions have turned to forage fish stock and spawning assessments as part of an ongoing effort to identify limiting factors on the survival of salmon in Puget Sound.

We know little about the biology, stock abundance and viability of surf smelt and sand lance populations in Puget Sound. Puget Sound supports a number of genetically distinct stocks of forage fish. Documented spawning in South Puget Sound ranges from October to March, while other regions of Puget Sound support year-round spawning populations. Surf smelt and sand lance spawn in the upper intertidal area on sand and gravel beaches. Eggs are deposited at the water's edge during high, slack tides. The eggs adhere to small pieces of course sand and fine gravel. Wave and tidal action distribute and partially bury the eggs along the beach, where they will incubate for approximately 15 days before



A 10-day old surf smelt egg at 10X magnification



Sarah Clarke takes bulk sand and gravel samples from a beach near Pt. Defiance

hatching. Herring deposit eggs in sub-tidal marine vegetation beds such as kelp and eelgrass.

The Washington Department of Fish and Wildlife (WDFW) has performed Puget Sound-wide forage fish spawn surveys since 1989 and manages a comprehensive database of documented forage fish spawning beaches and marine vegetation beds. Through an invaluable partnership with WDFW, the SPSSEG and the Nisqually Indian Tribe have launched a 2006-2007 forage fish study of one particular shoreline reach that will add to WDFW's efforts and inform a greater nearshore habitat assessment undertaken by SPSSEG. Dan Penttila, WDFW biologist, has provided SPSSEG with training, equipment and technical support to carry out forage fish surveys during winter, 2006-2007.

In general, forage fish spawning surveys entail: taking bulk gravel samples from the upper intertidal area (~6'to 11' tidal elevation) every 1,000 feet along beaches of suitable substrate; sifting the sample through specifically sized sieves; winnowing the sample to procure the "light" portion of the sample where eggs are likely to be; analyzing the sample under a microscope for presence of eggs; and aging the eggs appropriately to estimate spawning SPSSEG's work has served to support and expand WDFW's database of documented forage fish spawning beaches. For more information on forage fish visit www. http://wdfw.wa.

gov/fish/forage/forage.htm.

For more information on SPSSEG's nearshore assessment contact Kristin Williamson at (360) 412-0808.

Written by Kristin Williamson 🦠

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### **South Puget Sound Salmon Enhancement Group**

The SPSSEG is a non-profit volunteer-based organization that conducts salmon restoration, salmon enhancement and community education to increase salmonid populations in the South Puget Sound Region.

The SPSSEG is one of fourteen Regional Fisheries Enhancement Groups created in 1989 by the Washington State Legislature. The Regional Fishery Enhancement Program is partially supported by surcharges on sport and commercial fishing licenses. The Washington Department of Fish & Wildlife provides technical and administrative support to the program.

The SPSSEG is administered by a volunteer board of nine directors elected by the general membership.

Joe Williams—President

Retired Department of Ecology
Sally Hicks-Vice President
Retired WDFW, SJH Enterprises
Dan Wrye- Treasurer
Pierce County Water Programs
Bill Graeber- Board Member
Retired NOAA, Stillwater Sciences
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NWIFC
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Puyallup Indian Tribe
Duance Fagergren-Board Member
Puget Sound Action Team
Tim Layton-Board Member
WA State Medical Association

Want to get involved?

Retired Doctor of Veterinary Medicine

**Jack Havens**—Board Member

Become a member, attend board meetings or our BBQ and Annual Membership meetings!

### Changing Faces at SPSSEG by Cheryl Mongovin

After working for the SPSSEG for 2-1/2 years, **Teresa Moon** left in January to pursue her career with the Washington State Department of Natural Resources, working as a manager in the Cooperative Monitoring, Evaluation, and Research (CMER) program. Luckily for us, she often attends meetings in our building and stops by to say hello! Good bye, Teresa, and Good Luck.

Feeling the staffing pinch left from Teresa's and Jason Lundgren's departures, the organization has added two new employees: **Eli Asher** and **Kim Gridley**.

**Eli** will be our construction manager for habitat projects. He is finishing up his master's in resource management at Central Washington University, and is looking forward to completing his thesis write-up on research in the Greenwater Watershed. Eli worked through graduate school as a watershed steward for the Mt. Baker-Snoqualmie National Forest, and worked previously with Agreement Dynamics, a communication and organizational development consulting firm in Seattle. He's on board to manage three construction projects this summer and the same (or more) for summer 2008. Eli will be lead project manager in WRIA 10/12 and work with Lance Winecka in WRIAs 13 and 14.

**Kim** earned a B.S. in Environmental Science from The Evergreen State College. Her experience with the Department of Ecology, the Forest Service, and NWIFC CMER brings monitoring and assessment skills to SPSSEG, where she is working on the Mashel Monitoring Plan and assisting Kristin Williamson on the WRIA 11/12 Nearshore Assessment. In addition, Kim will work with Kristin in WRIA 11.

It's great to have Eli and Kim working for SPSSEG. Welcome them next time you see them!

**Sarah Clarke**, our WCC intern, education and outreach coordinator, and resident artist, has been accepted to The Evergreen State College's Master of Environmental Science program, and will be enrolling full-time this fall. Sarah has been an integral part of the SPSSEG team this year. Thank you, Sarah, and good luck in graduate school!

With the Board of Director elections held at the February Annual Meeting, we also saw some change on the board. **Marc Wicke** decided to step down from his two year position due to work and family commitments, after being on the SPSSEG board for almost eight years. Marc was a volunteer project manager for us in the early days, before SPSSEG had staff to carry out projects.

New to the board are **Jack Havens**, a retired veterinarian from the Olympia area, and **Tim Layton**, who works as legal and legislative liaison for the Washington Medical Association. It is refreshing to have a broader representation from our service community. Also, we are pleased to announce the return of **Sally Hicks** to our board. Sally has been a long time member, active participant and supporter of our group. Welcome Sally, Jack and Tim!

### **SPSSEG Annual Summer BBQ!!!!!**

Thursday, July 12, 2007, 5-8pm at Priest Point Park, Olympia

RAFFLE: Great Prizes!
-Top Prize: 14' handmade, wooden Jon boat
with trailer.
-Theater tickets movie

-Theater tickets, movie tickets, local produce and more!

Proceeds support our education program.

Thanks to: Dave Mongovin Harlequin Productions Olympia Film Society Thomas Carr



RAFFLE TICKETS ON SALE NOW-\$5 EACH.

FOOD: Burgers, hot dogs, vegetarian options, snacks, and refreshments. UPDATES: Salmon habitat restoration projects in the South Sound. INTERPRETIVE WALK: Mission and Ellis Creeks project sites

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### Restoration....not enough to save salmon by Lance Winecka

SPSSEG has built a name as one of the most prolific project-based salmon restoration groups in the region, implementing high-value habitat projects throughout the fresh, brackish, and saltwater environments of South Puget Sound. We, as an organization, are passionate about our work, and invest ourselves fully in our mission. In spite of the value of these projects, however, restoration alone will not suffice to bring beleaguered salmon runs back from the brink of extinction.

Salmon have been driven nearly to extinction throughout their European range, and it didn't happen overnight: Many generations have observed first-hand the salmon's dramatic decline during the past several hundred years.

With the advent of canning technology in the early 1800s, salmon became a global commodity; once sold only salted or pickled, canned salmon could withstand storage and transportation. The newly expanded market for canned salmon allowed the fishing industry to boom, and with it, economic and social battles emerged. River landscapes changed and pollution increased during the industrial revolution, compounding problems with over fishing. Manmade obstructions in many rivers blocked salmon from reaching their natal streams to spawn. Despite recognizing the importance of fish passage for continued salmon runs (and the commercial fishing industry), manufacturing, resource extraction, and residential development maintained precedent over environmental protections.

Even with a troubled past, all is not lost in Europe. Parts of Scotland and Ireland still host sustainable fisheries. In an early attempt to maintain salmon runs, a Scottish king declared in 1030 that salmon should be allowed to bypass human caused obstructions (dams) to reach their spawning grounds. He declared that fishermen must allow enough fish to spawn in the rivers to keep the fishery viable. Despite these early efforts, salmon runs continued to decline in following centuries, leading to eventual extinction throughout much of their range. Europeans immigrated to America, leaving behind an old salmon world in dire straights and entering a new world practically littered with salmon.

Unfortunately, lessons learned from Europe did not direct early salmon policies in Northeastern states. A few early fisheries advocates remembered and understood Europe's salmon fishing failures and habitat destruction, but American society was unwilling to heed advice to protect salmon habitat.

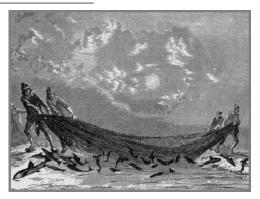
By the 1800s, industry had swept America. Early forestry practices decimated habitat with splash dams, instream log skidding, and riparian clear-cutting (many of these practices continued through the late 20th century). Gold mining, especially in the mid-1800s, extirpated once-plentiful Chinook salmon from much of California. Commercial fishing and legions of canneries cleansed rivers of seemingly infinite salmon.

We have learned many salmon lessons from Europe and the American Northeast, but the Northwest salmon saga continues. Ironically, American society is still battling many of the same issues first addressed by Scotland's king almost 1000 years ago: fish passage and harvest. Only a few issues have been added in the last two hundred years.

Today's salmon policy analysts and scientists know what salmon need to survive. In general, salmon must have access to habitat, cold and clean water, and viable escapement to their spawning beds. These same requirements have been constant for an eternity.

Fishery managers have relied on hatcheries for over a century to boost abundance and save struggling runs. Hatcheries, however, have proved a poor substitute for naturally spawned salmon. They also rely on human energy inputs normally supplied by nature, further increasing the social costs of each returning adult fish.

Today, many salmon advocates are pushing for a recovery plan based on habitat restoration and improved land use. Some have suggested amending the traditional four "H"s (Hatcheries, Hydropower, Harvest and Habitat) to include another "H": History. We have enough historical documentation of "what not to do" to move forward with a better vision of what is best for salmon and people alike.



Beach seining for Irish salmon. Painting from www.gutenberg.com.

Even with the pro-active approach of today's society, we still have fish-blocking culverts and dams, pro-development regulations, loosely controlled timber harvest, and large commercial and recreational fishing fleets.

But history has proven that hatcheries alone cannot save salmon. Ceasing commercial fishing alone will not save salmon. Restoring habitat alone will not save salmon. Removing dams alone will not save them, either. As a society, we have a direct impact on salmon. We can help them by making difficult decisions needed to protect habitat before it is degraded. We must responsibly manage urban and rural development, enforce existing regulations, evaluate impacts of sport and commercial fisheries and examine dam re-licensing processes and terms. These policy changes, along with ongoing restoration projects, will preserve and protect our beloved salmon. It seems we have been trying to extirpate salmon for a long time. If we're not careful we might actually succeed!

For more information about salmon recovery, please visit our website: www.spsseg.org, or Shared Strategy: www.sharedsalmonstrategy.org. David R. Montgomery's fantastic book, King of Fish, heavily influenced this article.

~Lance Winecka is a dedicated salmon restoration professional with the South Puget Sound Salmon Enhancement Group. He lives with his family in Olympia, Washington. Page 4 SalmonGram



### **Summer 2007 Construction Projects**

This summer we have eight construction projects planned, spanning each of our five Watershed Resource Inventory Areas in Pierce, Thurston and Mason counties. This summer's construction projects are diverse, running the restoration/enhancement gamut from dam removal, culvert removal and replacement, stepping up stream channel morphology, removal of intertidal armoring

and fish passage barriers in the nearshore, to implementation of massive engineered log jams. Collectively these actions will improve 17.75 miles of viable nearshore and aquatic salmonid habitat.

Silver Creek Dam Removal will improve upstream fish passage to prime salmon and bull trout spawning habitat in the cold, clear waters of Silver Creek, a tributary to the White River in Pierce County. Surveyors documented bull trout presence below the dam last fall, confirming the value of the project for this ESA-listed fish. The US Fish and Wildlife Service funded this \$9,000 project on US Forest Service land; both agencies have contributed valuable staff time to its success!



Skookum Creek Estuary Project will install a bridge, replacing and old timber crossing, opening up a small estuary. This project is located near the mouth of Skookum Creek in Totten inlet. The project will benefit natal and non-natal fish in the inlet. The project is funded by SRFB and WDOE.

Frye Cove Bulkhead Restoration is a great opportunity to highlight a bulkhead restoration project in the South Sound. This project will modify an existing encroached concrete bulkhead and install a soft alternative using woody debris. The project is slated to begin this summer. The anticipated outcome is to showcase alternative methods of bank protection for other shoreline landowners and to jumpstart similar projects across the Sound. This project will improve the nearshore environment while addressing common landowner concerns. SPSSEG is continually looking for willing landowners to participate. This project has many funding partners including: SRFB, USFWS, NFWF, and WDOE.

Mashel River Engineered Log Jam (ELJ) Installations will continue in 2007, adding to SPSSEG's habitat enhancement work completed in 2004 and 2006. Three ELJs will be installed, completing this phase of enhancement on the Mashel River, a major tributary to the Nisqually River in Pierce County. Log jams provide a host of environmental services, ranging from cover for juvenile salmon and their prey to facilitating natural fluvial geomorphology function. The ELJ project has been funded by major grants from SRFB (\$320,000) and Fish America Foundation (\$50,000), as well as countless in-kind donations of labor, riparian plants, and construction logs, without which we would not enjoy our continued success. We offer a sincere thank-you on the behalf of flora and fauna to all who have donated your personal time, energy, and materials to this valuable project.

Rocky Creek Fish Passage Project will restore access to five miles of salmonid spawning and rearing habitat on the Rocky Creek system. This project will replace a 7.5-foot diameter round barrier culvert with a 30-foot-span pre-cast concrete box culvert in Pierce County under 144<sup>th</sup> Street KPN on the Key Peninsula. Estimated construction costs total \$300,000. SRFB, USFWS and Pierce County contributed funding to complete this project.



Spurgeon Creek Culvert Removal is located in the Deschutes River System in Thurston County. The project will improve hydraulic continuity in the Spurgeon Creek system by removing a defunct culvert and improving native streamside vegetation. Estimated construction costs total \$3,000. NFWF and Thurston County contributed funding to complete this project.

Hiawata Fish Passage Project will replace a perched concrete culvert with a 20-foot wide, 10-foot tall, bottomless aluminum arch, allowing upstream migration of adult salmon from Pickering Passage in Mason County. Another nearby culvert will be retrofitted with improved baffles to ensure continued fish passage. The currently degraded and impassable stream channels are slated for restoration, improving habitat throughout the project area. Mason County has generously committed \$77,000 in matching contributions, allowing SPSSEG to leverage over \$440,000 in SRFB funds.



Shera's Falls Fish Passage Project will add 150 cubic yards of alluvial sand, gravel and boulders to the stream bed in order to alleviate a barrier falls near the mouth of Clover Creek in Lakewood. Estimated construction cost is \$30,000. The project was identified and designed by the Pierce Conservation District (PCD). PCD has provided engineering, construction management and planting services to the project. SPSSEG obtained final project funding from the NFWF's Pierce County Community Salmon Fund.

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## Tell me a little about your educational and professional background before you came to SPSSEG.

I was born and raised in Western Washington and some of my earliest memories are of my family and me steelhead fishing on Icicle Creek and Lucky Hole on the Green River. I have a Bachelor's of Science degree from Huxley College at Western Washington University. While working on my degree, I specialized in fisheries and fish biology. After graduation, I spent three years with the Department of Transportation in the Marine Operations Division of Ferry Services.

### How long have you worked for SPSSEG?

I have been working with the South Puget Sound Salmon Enhancement Group for the last six and a half years. In 2001, the group was working on small projects and had very few staff. During this time, our main focus was on culvert inventories which eventually led to project identification and development. The growth of our organization has really paralleled that of the Salmon Recovery Funding Board (SRFB), which came into existence in 2000. Since that time there has been a shift from Remote Site Incubator (RSI) projects, stream fencing and

### Quick and Dirty with Lance By Kim Gridley

Lance Winecka is the longest serving staff member on the SPSSEG team. As the newest member to SPSSEG I wanted to ask him questions about the history and future of the group. In future newsletters we will be highlighting some of our board members and staff.

riparian plantings towards capital improvement projects, such as culvert replacements, engineered log jams (ELJs), and bulkhead removals. Financially, this means the group has gone from receiving \$5,000 to \$20,000 per project to as much as \$500,000 per project.

### What do you do when you are not working?

I spend most of my time outside of work hanging out with my wife Amy and our two-year-old son, Tristan. We are also expect-

ing a new baby in October. Together, we like to spend time with friends, garden, and take care of our chickens, cats, and dog, Flower. And of course, I still love fishing!

# What were you hired to do and what is your current position? Where would you like your position to go in the future?

Initially, I was hired as culvert technician responsible for completing culvert inventories in WRIA 14. Eventually I was able to get involved in project management and grant writing.

My current job title is Salmon Restoration Project Manager. I am not only a project manager but also a habitat biologist. The most difficult thing I have run across in this job is that I have so many tasks to complete, there is never enough time to get it all done. There is so much learning that must happen on the job because every project is as unique as the site location and people involved. A real challenge is realizing that I cannot become an expert but I must be really good at many things.

To date, I have completed 20 projects. Currently I have ten projects I am working on, each in different stages. The group has been awarded \$4,000,000 in grants that I have written.

Our grant success rate is about 75%. I see the future of this position is moving away from project implementation and focusing on project development and fund acquisition.

### What is your outlook for Salmon in the South Puget Sound?

I believe that habitat restoration will always play a role in salmon recovery. But population growth is having a significant impact on salmon recovery efforts and sustainable development practices should be developed and implemented. We must, as a society, continue to improve science, update our Best Management Practices (BMPs), and prioritize open communication with policy makers. Restoration alone will not be enough; we must encourage the preservation of habitat that still remains intact. Our land use practices must be adaptive and fluid to form policy changes. In order for salmon to survive they need the right habitat available to them.

### Anything else you want to share about your professional or personal life?

I am one of the few people who get to do work that they really love and are passionate about. For me, every day is a good day because of that.



Lance is still gainfully employed at SPSSEG and can be reached at (360) 412-0808

For staff bios on the rest of the SPSSEG family, please visit our website: www.spsseg.org

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### The Economics of Salmon Restoration by Eli Asher

Critics frequently cite "economic realities" to discourage progressive salmonrecovery actions. But that argument is fundamentally flawed: Salmon recovery funding stays at the local level, providing small businesses with work. Fully functional ecosystems draw visitors to small communities, whether to watch wildlife, participate in restoration activities, fish, or hunt. Clean, cool water shaded by trees and cleansed by wetlands reduces water treatment costs for local municipalities. Restoration projects involving local schools provide priceless, rare, realworld educational opportunities to children who would otherwise experience the world solely through media. Finally, returning adult salmon fuel sport, commercial, and tribal fisheries essential to the Northwest way of life. Salmon recovery is not an economic sacrifice. Rather, it is an investment that pays immediate and sustainable dividends.

Money spent on salmon recovery fuels local economies. Salmon restoration projects typically use local engineers, consultants, surveyors, equipment operators, project managers, permitting coordinators, and monitoring scientists. Materials for construction projects are also acquired locally. These services alone provide millions of dollars to local economies per year.

Restored habitats draw money into local communities. Productive rivers attract sport anglers. Hunters arrive in fall to pursue some of the many animals that rely on healthy riparian and wetland habitats disdained by traditional development. Bird watchers flock to wetland environments for glimpses of rare specimens for their life-lists. All of these groups in turn spend money at sporting goods and grocery stores, gas stations, motels, marinas, and restaurants, leaving local jobs in their wakes.

For local municipalities, salmon restoration funds improve the bottom line. Many small cities have aging waste treatment facilities that, when combined with already degraded water quality, pose threats to threatened and endangered fish runs. Restoration efforts, both upstream and down, improve overall water quality, allowing local utilities some latitude with discharges until upgrades are within fi-

nancial reach.

School groups are frequent partners in salmon restoration projects. Students and teachers participate in stream cleanups, riparian plantings, and "carcass-tosses" to enrich salmon-poor streams with nutrients. This sort of service learning is in vogue with education professionals because lessons learned vary from scientific to sociologic, and stay with students much longer than paper-bound traditional lessons. Students also gain a sense of stewardship and ownership of the natural environment, which will guide their actions later in life.

Perhaps the most compelling economic gain achieved by salmon restoration is the value of adult salmon as a commodity. A common public misconception about salmon restoration is that we advocate protecting all salmon from harvest. The opposite is usually the case: people involved in salmon restoration are often anglers and fisheaters. One of the goals of salmon restoration is to develop and maintain harvestable numbers of economically valuable salmon. For instance, over the past 10 years, landings in the eastern North Pacific salmon fishery alone are estimated at \$390 million. This money also remains in local communities, and trickles through banks, retail, and service sectors, providing jobs beyond just commercial landings. Salmon brought to local docks are sold to local processors and distributors, who in turn sell the product to local restaurants, grocery stores, and seafood outlets. Unlike a beef patty imported from Argentina, a salmon caught, processed, and sold locally feeds the local economy, not just the consumer.

To put salmon restoration funding in perspective, Washington State's 10-year transportation plan calls for \$16 billion distributed among 274 projects. Transportation is, of course, vital to our economic and social wellbeing, but transportation projects tend to be considered essential, while salmon recovery is optional. Shared Strategy, a salmon-centric organization, has estimated that 10-year Chinook recovery for Puget Sound salmon would cost

\$1.4 billion dollars, less than 10% of the cost of transportation projects over the same time period. These funds would be spent directly on salmon restoration and habitat issues, flushing money through cash-strapped small towns and rural counties that historically depended on fishing, timber, and mining as primary industries.

Lack of political will is often cited as an impediment to salmon recovery, but recently Governor Gregoire has pledged approximately \$40 million to clean up Puget Sound by 2020. In recent years, approximately \$30-\$40 million have been spent yearly on salmon recovery in Washington. These funds are mostly federal biennial appropriations with state match. Much of this money targets Chinook recovery as part of an overarching program under the Endangered Species Act. These figures are far short of the funding necessary to fix the problems of the past, but are meaningful first steps in a marathon race to bring salmon back from the brink.

At least 14 identified regional stocks are extinct. Yet, salmon are resilient creatures that pioneer new habitat as it becomes available, as evidenced by wild fish spawning in the Toutle River since Mt. St. Helens' catastrophic eruption in 1980. The next hundred years will be critical if the salmon are to survive in our modified environment. As human population increases and land development changes are made to the landscape, we must keep salmon in mind if they are to return in viable numbers to fuel our economy. Protecting existing habitat is cheaper than restoring modified habitat.

Salmon restoration sounds expensive, but it is a relatively small investment in local communities that pays big dividends for local economies. Restoration does not benefit salmon to the exclusion of human interests; rather, its main purpose is to build sustainable local economies based on ecosystem services that we receive for free.

~Eli Asher is a new member of the SPSSEG team. He lives in Kelso, Washington, where his great, great grandfather fished for salmon in the Cowlitz River in the 1800s.

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### Getting Muddy with Macroinvertebrates by Sarah Clarke

A girl, ankle-deep in water, holds a square-framed net firmly against the stream bed. Her friend digs around in the sediment in front of the net, dislodging small organisms and sediment that are carried by the current



into the net. Carefully lifting the net out of the water, they carry it over to a table, where they rinse the sediment and organisms into a small dishpan. "Look, there are little bugs floating in there!" the first girl said, shaking the pan as they both begin looking closer at its contents. These girls are not just playing in a stream; they are sampling benthic macro-invertebrates.

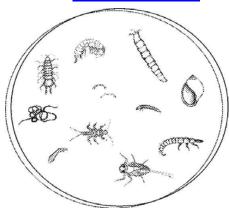
Benthic macroinvertebrates are organisms that live in and on the bottom of aquatic environments (*benthic*), are large enough to see without magnification (*macro*-), and do not have backbones (*invertebrates*). This group includes various insects, worms, and other

"bugs." Juvenile salmon, having emerged from the gravel as fry, feed primarily on these organisms.

A wide variety of macroinvertebrates live in stream beds. Some are extremely sensitive to pollution or environmental stressors; absence or presence of certain species is an indicator of stream health. Benthic macroinvertebrate sampling is also a cost effective, relatively easy procedure that lends itself well to volunteer participation.

As the Washington Conservation Corps/Americorps Individual Placement at SPSSEG, I get to creating service learning opportunities within our local community. Benthic macroinvertebrate sampling is a great vehicle to connect youth with the environment while producing meaningful data for SPSSEG's monitoring program. Kids from local organizations will be getting muddy with macroinvertebrates in Kennedy Creek this summer.

For information on how you can get involved, please call Sarah Clarke at 360-412-0808 or send an email to sarahc@spsseg.org



Sarah is our third WCC intern at SPSSEG. In her time here she has gone above and beyond in spearheading education events including a salmon mural on the Capital Theater, taking on management of a construction project and assisting in field work wherever possible. She has been a integral part of our team, and we will miss her in the fall!

# Show Your Support! Join SPSSEG Today! A One Year Individual Membership is Only \$15 and is tax deductible.



### South Puget Sound Salmon Enhancement Group Membership

Name	
Address	
City/State/ZIP	
Phone: Home	Work
◊ Individual Membership	\$15
◊ Family Membership	\$25
◊ Business Membership	\$200
◊ Corporate Sponsorship	\$500
	e Return form to: tin Way East, Suite 112

Olympia, WA 98516

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Spring 2007 Editor: Kristin Williamson

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### SPSSEG staff downtown with the Capitol Theater chum

In partnership with the Capitol Theater, SPSSEG hosted a salmon-mural painting activity at the 2007 Arts Walk and Procession of the Species Celebration. Sarah Clarke designed and painted outlines of five spawning chum salmon on the alley wall of the Capitol Theater and community members painted individual scales on the salmon, creating a mosaic effect.

Kim Gridley and Sarah burned the midnight oil to make this mural a success; thank you both for your hard work! Several local businesses generously donated supplies. Special thanks to: Dumpster Values, Olympia Supply, and Northwest Paint and Supply!

### SalmonGram

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