

THE SALMON STEWARD



Students at Neilson Grove Elementary in Delta paint dream fish to be hung on a section of fence beside the Millennium Trail in Delta. The fish are a call to action for the public to take care of their local water courses.

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Students Blend Art and Technology to Spread Conservation Message

If you have a school in your neighborhood, you've likely seen the brightly painted wooden cut-outs of salmon attached to fences. The fish are a product of the Stream of Dreams Mural program. The program teaches students where their local watersheds are located, how salmon support the ecosystem and how to protect them. The murals of painted fish (dream fish) are a visual symbol for the students' new understanding of their watershed. They also serve as a key messaging vehicle for the broader community, reminding people that 'All drains lead to fish habitat.' In Delta, one school took the concept a step further by adding Quick Response codes to their dream fish.

The "Stream of Dreams" students at Neilson Grove Elementary School printed the QR codes on their mural and linked the fish to video footage produced by older students of interviews with local environmental experts. The dream fish hang in a highly-visible area along the Millennium Trail in Delta.



To see the student-produced videos, use your smart phone to scan this QR code.

"We already have an active green program that promotes recycling and composting," said Bob Thompson, school principal. "However, we wanted to connect the kids to their local environment. We have a fish-bearing slough that runs beside the school grounds, so the Stream of Dreams program was a perfect fit."

"The key to behaviour change is communication, and children today are adept communicators," said Thompson. "So many of the tools they use like QR codes and social media are essentially communication tools. The Stream of Dreams program is effective because it makes children champions for salmon and encourages them to go home and remind their parents not to wash their car near a storm drain or flush their medication down the toilet."

The Pacific Salmon Foundation has granted \$119,540 to 12 Stream of Dreams projects since 2004. ♦

To learn more about supporting the [Stream of Dreams](#) program contact Michelle Lam at 604.664.7664 ext. 108 or mlam@psf.ca



2005 – From left, siblings Sarah and Brandon Davies at the Kanaka Creek Fish Fence in Maple Ridge show puppet props used to educate children and the public about the importance of salmon to the ecosystem.



2011 – Father and son team, Ross and Brandon Davies answer questions from the public and show returning chum adults at the Society's Return of the Salmon event. The October event welcomes the return of salmon to Kanaka Creek.



September 2012 – Sarah and Brandon Davies plant shrubs in Kanaka Creek Regional Park to help stabilize the soil around the creek and provide shade to maintain water temperatures for salmon.

Salmon Stewardship Becomes a Family Affair

For the Davies-Jarvis family, salmon stewardship and volunteering are all in the family. Mom, Janice Jarvis, is a career biologist who formerly managed the [Seymour Hatchery](#) in North Vancouver. As a former stewardship coordinator for Fisheries and Oceans Canada and currently a biologist with Metro Vancouver Regional Parks, she continues to work with volunteer groups while donating her own time for stewardship activities.

"We've been dragging our kids around to volunteer events since they were toddlers," said Jarvis. "Something must have clicked because they continue to volunteer on their own time. My daughter is 16 now and part of a leadership group at school. Recently she organized 80 kids to remove invasive plants – so now she's getting her friends involved."

Encouraging youth volunteerism extends beyond their personal lives. Jarvis' husband, Ross Davies, works with the [Kanaka Education and Environmental Partnership Society](#) in Maple Ridge. The Society runs some 150 field and classroom programs that engage more than 4,000 students each year and 35,000 participants since 2003.

"Kids have a natural engagement with nature, and somewhere along the line they lose it if it's not continually reinforced," said Davies. There are about 100 tributaries that drain into the Kanaka Creek Watershed – some are ditches behind malls with fish in them."

Most of the Society's programs teach students about urban impacts on salmon. As urban pressures increase, Davies says it's vital that youth continue to be engaged.

Davies says the young people he works with are also learning that they can help hold polluters accountable when pollution occurs. One group of students was successful in causing some significant new water policy changes for Maple Ridge. It all started when students at Samuel Robertson Technical Secondary School noticed the muddy water in Spencer Creek as the result of a new development.

"One girl at the back of the class said we needed to do something about it. So the kids took water samples and posted the results on the Society's website," said Davies. "Next thing you know, the Mayor went to the company and demanded they improve their development practices. Now Maple Ridge has some of the toughest silt control by-laws of any municipality."

Since 1993, the Pacific Salmon Foundation has granted \$190,260 for 16 projects to the Kanaka Education and Environmental Partnership Society. ♦

Salmon Bridge Past and Future for First Nations Youth



Students take part in streamkeeper training beside the Little Chilliwack River from Pacific Streamkeepers Federation president and Foundation board member Zo Ann Morten. The training helps students keep salmon habitat safe by monitoring the health of their local stream.

For Skowkale Hatchery manager Harold Archie, salmon are a key cultural symbol and teaching tool that link the past and the future for his Stó:lō First Nations students. Stó:lō means river in the Halq'eméylem language, and the river has historically served as grounds for many community activities including fishing, trapping, hunting, medicinal plant growing and swimming. Through the Skowkale Hatchery Revitalization and Education Project, students are using a blend of traditional aboriginal fisheries methods and new sustainable fisheries practices at the hatchery to create a future for the river.

The Skowkale Band has been operating the hatchery on the Little Chilliwack River for more than 25 years - and Archie has managed it for almost all of them. "There was nothing until the hatchery started," said Archie. "Now students are producing 50,000 eggs per year, 40,000 of which are released into the river."

The project operates in partnership with the Chilliwack School District, [Skowkale First Nation](#), Fisheries and Oceans Canada, and the City of Chilliwack. It engages students from various Chilliwack schools, including alternate education centres and sponsored group homes at the hatchery.

"Each student group is responsible for the care of about 5,000 eggs," said Archie. "It's effective because the kids are using math, science and language skills to do some pretty complex tasks like determining water flow, food needs and medicinal dosages. In the case

of students who have alternative learning needs, a hands-on learning environment is more effective than traditional classroom methods."

"The Pacific Salmon Foundation was key in helping us expand the hatchery and expand our educational outreach," said Archie. Since 2007, the Pacific Salmon Foundation has granted \$46,500 for five projects to the hatchery and the Skowkale Hatchery Revitalization and Education Project. ♦



Students release smolts (young salmon) into the local creek. The Skowkale Hatchery in Chilliwack produces 50,000 eggs per year with help of students. Students are responsible for care of the fish from egg stage to release.

Count down with stories from the Foundation...

The Foundation will mark the final weeks until year-end with weekly profiles of young salmon stewards that partner with the Foundation. You can read these stories on our website at psf.ca
Below and on the next page are some snapshots of what to expect!



2011 bursary winner Anna Smith receives her \$1,000 award through the Foundation's [Stewardship Community Bursary](#) program from Foundation president Dr. Brian Riddell. The program annually supports B.C. students who are pursuing studies in the environmental field and who demonstrate a commitment to salmon conservation through volunteering.



Left to right: Chateau Victoria's [Vista 18](#) executive chef Garrett Schack with long-time supporter Bob Fraumeni at an outreach event hosted by Chateau Victoria. Schack spearheaded Chateau Victoria's charitable pink salmon menu item that generates one dollar for the Foundation each time it's ordered. Schack has also used his leadership with sustainable food group the Island Chefs Collaborative to broaden outreach for the Pacific Salmon Foundation's agricultural eco-label Salmon-Safe B.C.



Jack Fletcher and son Brendan release smolts into the Coquitlam River for the [Port Coquitlam & District Hunting & Fishing Club's](#) Al Grist Memorial Hatchery. The club uses a host of strategies such as whole family participation to engage youth in hatchery activities.



Comox artist Esther Sample stands beside her winning painting "Hunger Strikes" at the Foundation's 2011 Art Stamp Competition in Vancouver. The painting appears on the 2012 – 2013 [Recreational Fisheries Conservation Stamp](#), known as the "Salmon Stamp." The 36 year-old mother of three was previously a commercial fisher and also the first female to win the art competition.



Students from Irwin Park Elementary School in West Vancouver participate in a storm drain marking project organized by the [West Vancouver Streamkeeper Society](#). Created by Fisheries and Oceans Canada, storm drain-marking uses yellow fish to remind locals to keep harmful things out of storm drains, which empty directly into local streams. The Society manages 22 streams in West Vancouver and runs several programs throughout the year to engage elementary and secondary school students in conservation activities.

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Surrey Burnsvew Secondary School environmental science students build a rain garden beneath the Alex Fraser Bridge with the help of the [Cougar Creek Streamkeepers](#). The streamkeeping group built their first rain garden in 2006 and has since built 13 with ambitious plans for the future. Rain gardens use plants to naturally clean stormwater before it returns to nearby salmon streams.



Chief Fred Robbins shows students from the Williams Lake Field Naturalists' Salmon Trip how to prepare sockeye for cooking over a fire. The three-day trip matches secondary school science students with local salmon experts from various sectors including First Nations, Fisheries and Oceans Canada, and undergraduates and researchers from the University of Northern British Columbia.

Foundation Sees 25th Anniversary as Cue to Look Ahead

Pacific Salmon Foundation board member Ian Angus has been a board member since 1995 and currently sits as chair of the Foundation's core Community Salmon Program that funds approximately 300 volunteer groups across the province.

"There's about 8,200 combinations of salmon species and streams in B.C. – to be effective, you need an army with the local knowledge to properly address stream-specific issues and the passion to take long-term ownership of the situation," said Angus.

Young people today are doing their part to make a difference. High school graduation in most regions now demands a volunteer component, and Foundation-funded school programs like [Salmonids in the Classroom](#) and [Stream of Dreams](#) are contributing to an enriched awareness of salmon and its role as a linchpin species for the surrounding ecosystem. Interest in stewardship is also motivated by growing concerns over food and water scarcity compounded by surging urban populations.

"The Pacific Salmon Foundation owes its legacy to the hard work of the current generation of streamkeepers," said Angus. "We want to make sure there is a succession plan in place to ensure that those impacts aren't lost."

This year, the Foundation made a personal commitment to refresh its board leadership by electing young professionals Chris Donaldson and Trevor Scott. The Foundation also funds programs that engage a broad spectrum of youth at several touch-points in their development - from in-school programs like



From left: Trevor Scott, partner at law firm Farris, Vaughan, Wills & Murphy LLP, has helped boost government relations and operational efficiency as a member of the Foundation's governance and accountability committees. Chris Donaldson, president of Donaldson Capital Corporation, has raised more than \$20,000 and introduced several young professionals to the Foundation through the creation of the Salmon Futures Charity Fishing Trip in 2011. Donaldson was introduced to the Foundation's work through his father-in-law and long-time board member Bob Gayton.

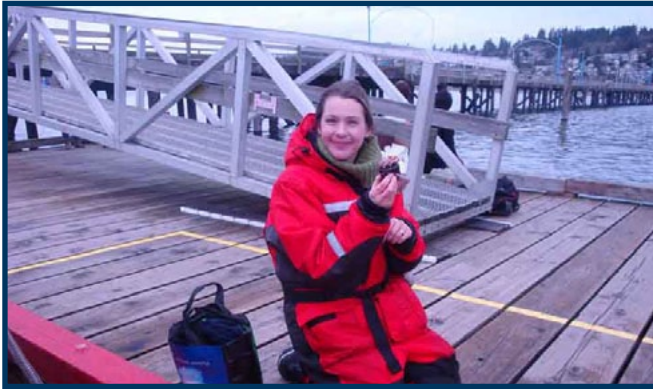
Stream of Dreams and Salmonids in the Classroom, to extracurricular groups like Scouts Canada. Most of the hatchery groups the Foundation supports also have comprehensive educational strategies.

The Foundation's core grant-making [Community Salmon Program](#) encourages an educational component for project applicants. In the last 25 years, the Foundation's Community Salmon Program has granted \$1.8 million to 366 educational projects with a total value of \$19.2 million. ♦

Surrey Youth Key to Salmon-Friendly Urban Growth

The City of Surrey is the second fastest growing city in the Metro Vancouver area, growing by 18.6 per cent in the last five years. The city also has approximately 1,400 kilometres of urban watercourses running through its neighbourhoods, parklands and alongside roads – many supporting salmon. Through the city's [Salmon Habitat Restoration Program](#), it is successfully engaging youth to manage urban growth from an environmental perspective.

The program began in 1996 with the primary goal of reducing urban impacts to Surrey salmon streams. A key aspect of the program is to introduce local youth to environmentally sustainable practices and instill a stewardship mentality through education and a sense of personal responsibility.



Liana Ayach, current program manager, monitored water in Boundary Bay several years ago when she volunteered as a team leader for the program. The purpose of the project was to determine water health of upstream creeks that discharge freshwater into the bay.

Liana Ayach, manager of the Salmon Habitat Restoration Program, can personally vouch for the program's effectiveness as a former habitat restoration team leader in 2001. In 2002, she returned to the city as an intern through a college environmental program. In 2006, after coming back as a contractor, she was hired permanently to her current position as full-time manager of the program.

The program has a core of 70 to 80 full-fledged youth volunteers and an employment program that hires some 18-25 students annually.

"The activities accomplished by these teams change each year to emphasize the talents of the current team leaders," said Ayach. "Youth see stewardship with fresh eyes so team leaders are encouraged to be innovative and creative in conveying stewardship messages to children, youth and adults. Young people



A member of the program's Community Education Team leads Surrey kids as part of a storm drain-marking event which paints yellow fish in front of the storm drains to notify the public that the drain leads to fish habitat. The team visits schools, daycares and community events within Surrey to educate residents about what they can do to preserve fish and fish habitat.

have an advantage from a communications standpoint. They are all very connected to social media and the Internet, which has the advantage of spreading the message exponentially."

The Pacific Salmon Foundation has granted \$67,330 to five projects carried out through the Salmon Habitat Restoration Program since 2003. ♦



Members of the program's Watershed Enhancement Team remove invasive plants from a Surrey stream to encourage growth of native plants. The team undertakes projects such as slope stabilization, debris removal, planting of native plants, invasive plant species removal, erosion protection, and other in-stream work to enhance fish habitat.

Troubled Youth Found Inspiration in Salmon

Lack of Funding was Nail in the Coffin for Award-Winning Program

Mission, B.C.-based Jim Taylor founded the Stave Valley Salmon Enhancement Society's E-team that educated troubled youth by connecting them with nature and conservation work. In April of 2007, Taylor received a B.C. Community Achievement Award for his work with the program. A few weeks later, he flew to Montreal to receive a Canadian Environment Award for the program but returned to some devastating news.

"We were originally housed in an old rural school that we had repurposed for the E-team. It was perfect, because for that type of program you need room to store things like waders and gumboots," said Taylor. "When I got back, the building had been sold and the offer on the table was an old portable building behind a bus garage. We spent years building up pride in the program, and with one funding cut, kids are sharing bathroom facilities with the bus drivers."

Taylor's successor Dave McDonald continued running the program for the next few years but eventually the program was forced to shut down due to loss of school board funding.

As government funding for special programs like Taylor's dwindles, the Pacific Salmon Foundation will need to fill the gaps. "The Foundation provides stop-gap funding for several volunteer-run in-school programs designed to augment the current curriculum, but does not have the capacity for ongoing program support," said Foundation president Dr. Brian Riddell. "Every year the Foundation is forced to deny half of qualified salmon projects due to insufficient funding."

Despite the circumstances of his program's end, Taylor still has a legacy of achievements to look back on.

"The kids we worked with were extremely high-risk and some were likely headed for the correctional system," said Taylor. "The outdoors was the learning environment they needed because it provided tangible problems without judgment."

Taylor continues to soldier on for salmon as a director for the Stave Valley Salmon Enhancement Society. Through his work with the program and other schools, Taylor has engaged more than 6,000 students - many of whom have gone into fisheries work.

The Pacific Salmon Foundation has granted \$123,721 for 17 projects to the Stave Valley Salmonid Enhancement Society since 1993.♦



Jim Taylor and youth from the E-team program conduct field sampling in Silverdale Creek Wetlands in Mission to determine which native and invasive species live in the area.



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The Pacific Salmon Foundation was established in 1987 as an independent, non-governmental, charitable organization to protect, conserve and rebuild wild Pacific salmon populations in British Columbia and the Yukon Territory.

The Foundation:

- Raises money and makes grants to volunteer organizations that work on behalf of salmon across the province.
- Manages multi-million dollar initiatives in the Skeena and Fraser River watersheds in partnership with industry, provincial and federal governments and other foundations.
- Advances scientific and evidence-based solutions to challenges facing wild Pacific salmon.
- Serves as a voice for conservation and restoration of wild Pacific salmon and the ecosystems that depend on them.

Learn more about supporting the Pacific Salmon Foundation by contacting Michelle Lam at 604.664.7664, ext. 108 or mlam@psf.ca.

To make submissions to the *Salmon Steward*, contact Elayne Sun at 604.664.7664, ext. 123 or esun@psf.ca

Web resources:

PSF.CA

SALMONSAFE.CA

UPCOMING EVENTS

Saturday, November 24, 2012

Nanaimo Dinner/Dance & Auction

Beban Park

Tickets \$60 - Available at Wholesale Sports Outdoor Outfitters & Gone Fishin' (Nanaimo)

Saturday, January 26, 2013

Oceanside Dinner/Dance & Auction

Qualicum Beach Civic Centre

Tickets \$60 - Available at Gone Fishin' (Nanaimo) or Al Ehrenberg 250.752.1083

email: gonfial@telus.net

Saturday, February 9, 2013

Campbell River Dinner & Auction

Caribbean Theme

Fraternal Order of Eagles Hall

Tickets \$50 - Available from Larry E. Stefanyk 250.923.0939 or email: ifmm@shaw.ca

Saturday, February 23, 2013

South Vancouver Island Dinner & Auction

The Commons Block, University Of Victoria

Tickets Available at Island Outfitters 250.475.4969

Saturday, March 2, 2013

Quesnel Dinner/Dance & Auction

Quesnel Seniors' Centre

Contact Christina McIntyre at

(604) 664-7664, ext. 116 or cmcintyre@psf.ca

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