

StreamTalk

The Newsletter for Stewards of Salmonids and their Habitat

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2017 – a year to celebrate: Canada's 150th and SEP's 40th Anniversary



With 2017 marking the 40th Anniversary of the launch of the Salmonid Enhancement program

(SEP) in B.C. and the Yukon, there is much to celebrate among the countless organizations and individuals who have played a role in the program. The last edition of *StreamTalk* detailed some of the historical milestones of SEP over the past 40 years and the contribution the program has made to restoring and conserving Pacific salmon stocks so vital to the environment, culture and economy of Canada's West Coast.



SEP's reach over the past 40 years

Unique to the Pacific region, SEP's partnership between the federal and provincial government, communities, First Nations, special interest and community groups and the public serves as an example of what can be achieved by working together to ensure the long-term protection and stewardship of salmon and trout. In recent years, programming elements from SEP have been adopted by others elsewhere in the world who share the same goals. Here are some examples of SEP's reach and impact:

Educating the next generation of fish stewards



CANADA 150

2017 also marks Canada's sesquicentennial—the 150th anniversary of Confederation. As Canadian Heritage Minister



Mélanie Joly noted, "the goal is to champion the environment and to get youth involved to make sure people get to know each other."

Education has been a key component of SEP's public awareness, stewardship and community involvement efforts. The SEP education program *Salmonids in the Classroom*—part of the *Stream to Sea* initiative—was developed in the early 1980s to support educators in teaching students from kindergarten to grade 12 to understand, respect and protect freshwater, estuarine and marine ecosystems. More than a million students have participated since the inception of the program which has grown from a handful of schools with incubators in their classrooms to an average of 900 schools annually.



Other jurisdictions have developed their own programs adapted from B.C. lesson plans. Some examples of these programs are: *Alaska Salmon in the Classroom* (Alaska Department of Fish &

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Then and now...keeping the public eye on SEP

SEP Time Capsule, 1985

(From SEP annual report, 1985)

"It's called the Salmonid Enhancement Task Group. It has 21 members who represent the general public and the various user groups who benefit directly from the West Coast Fisheries. Its task is to give the program guidance and advice, provide a direct link for feedback to SEP managers, and take an active role in SEP planning.

The Chairman of the Task Group is also a member of the Salmonid Enhancement Board. The Board provides advice to the Minister on matters relating to SEP. The Task Group is another of the ways that SEP maintains its strong connections to the general public, industry groups, taxpayers and consumers."



Current Day, 2017:

The Salmonid Enhancement Task Group has evolved over the years into the [Salmonid Enhancement and Habitat Advisory Board](#) (SEHAB).

SEHAB and the community have a shared commitment

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2017 – a year to celebrate

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Game); Washington state's [Species and Ecosystem Science School Cooperative Program](#) (Washington Department of Fish & Wildlife) and California's, [Classroom Aquarium Education Salmon and Trout Education Program](#) (California Department of Fish & Wildlife). The Oregon Department of Fish and Wildlife's version is called [Fish Eggs to Fry](#) and their Salmon and Trout Enhancement Program (STEP) has many hatchery similarities to SEP. Staff from STEP and DFO have met many times over the years to share key learnings and ideas at workshops.



Educators from across the Pacific Northwest meet annually at a conference hosted by [NAME – the Northwest Aquatic Marine Educators](#) (a chapter of the [National Marine Educators Association](#)) and share information and education materials as well as new opportunities to expand upon lesson plans and outreach initiatives.

This issue of *StreamTalk* also features an article about students in New Zealand raising salmon in the classroom and learning about their life cycle and habitat needs.



“Necessity is the mother of invention”

The program has brought innovation and creativity to the forefront, as often the tools and techniques had to be developed to begin a new project or to find a better way to do the job at a lesser cost. For example, SEP was impetus for



the creation and design of the original chillers for school aquariums that are now widely used across the province. (See [A Chilling Tale](#), *StreamTalk* 2016 Spring Edition).

Hatchery innovations, developed by hatchery staff and DFO community advisors, such as Capilano troughs, came from the program, and staff are known to be “gizmo and gadget people” who can improvise and design a plumbing system from scratch. In 1983, resourceful SEP engineers developed a waterless or “moist” incubation system, reducing the volume of water, thereby reducing heating costs and the amount of medication required.

Yellow Fish highlight the way

The storm drain marking program with the yellow fish logo was created by SEP. Now, variations of the original “dump no waste, drains to river” wording and logo are used across North America (for example, [Trout Unlimited Canada's Yellow Fish Road](#)) and around the world, from Australia to the United Kingdom and beyond.

Spreading the conservation word

Publications such as [Home Tips for Healthy Streams](#) have been adapted by Saskatchewan's Meewasin River Authority and Toronto and Region Conservation's watershed management efforts for the Don River.

It is encouraging that the conservation of aquatic ecosystems and fish habitat is becoming a world-wide issue. SEP is proud of the leading role it has played in advancing the efforts and increasing awareness, particularly among future generations, here in the Pacific region and further afield. Congratulations and thank you to everyone who has been a part of SEP these past 40 years. ●



Salmon Enhancement and Habitat Advisory Board 2016

Then and now...

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of ensuring functioning ecosystems supporting viable, genetically diverse and abundant indigenous fish populations. The Salmonid Enhancement and Habitat Advisory Board is the voice of the volunteer community dedicated to:

- > Communicating
- > Advocating
- > Representing
- > Educating and,
- > Supporting its endeavours

SEHAB meets regularly and provides a forum for volunteers to provide advice to the Federal and Provincial governments focusing on:

- 1 Strategies to manage salmon stocks with conservation as a first priority.
- 2 Comprehensive and effective habitat protection and restoration policies.
- 3 Improved public understanding and education of the important environmental, social and economic benefits of BC's salmon resource.
- 4 Encouraging adequate resources are allocated to recovering, restoring and maintaining habitat



Photo: Natal Cicuto

Lessons learned: Consistency pays off in Langley coho return

Yorkson Creek and its two major tributaries, West Munday Creek and East Munday Creek, flow through the Langley neighbourhoods of Walnut Grove and Willoughby, draining 20 square kilometres of land into the Fraser River.

Much has changed for the Yorkson Watershed Enhancement Society (YWES) in the twelve years since the Trans-Canada Highway culvert was made fish friendly. The 2014 spawner survey yielded 50 coho south of Highway 1, which was a 200 per cent increase from the first 16 coho counted in 2004.

Collaborating with local developers and other stakeholders led to the engineers at McElhanney coming to the assistance of the group, designing box culverts for Willoughby, with massive spawning baffles nests in the bottom of the culvert. The first model was installed in September 2015 at the 84th Avenue Road Crossing, and by November, YWES volunteers

counted 12 coho spawning inside the box culvert, protected from predators and increasing urban human interaction. The 86th Avenue location is also receiving a similar custom box culvert with fish nests and baffles. The Ministry of Transportation

They will also be going a step further by including a second wildlife culvert offset alongside the stream culvert.

There was a record return of coho to the system this past fall, with at least 170 adults returning to spawn. Assuming 50 per cent, or 85, are females, each with between 2,000 and 4,000 eggs, could mean as many as 255,000 coho fry will emerge in spring 2017. With this slow increase in salmon we are also seeing a return of other species such as the great blue heron and bald eagles, as sightings are now frequent.

This has been an amazing journey for our wild salmon runs that have called the Yorkson home since the last ice age. The lessons learned have demonstrated the impact a few caring and positive streamkeepers can make on the broader community, ensuring the survival of the Pacific salmon that call our backyard home. ●

—*Nat Cicuto, President, Yorkson Watershed Enhancement Society*



Photo: Natal Cicuto

84th Ave Yorkson Culvert September, 2015

and Infrastructure held an open house for the proposed widening of Highway 1 from 202nd Street to Abbotsford and they have allowed plans for a larger similar box culvert under Highway 1 to replace the Yorkson culvert that was repaired in 2004.

2017 SEP Community Workshop coming soon

The 2017 SEP Community Workshop will be held in [Quesnel](#), from May 19-21 at the College of New Caledonia (North Caribou Community College campus). This year's theme, *Salmon in Your Community*, celebrates the SEP 40th Anniversary and will also be a great opportunity to mark Canada's 150th birthday.

The workshop kicks off on Friday evening with a hosted welcome social featuring displays from community groups and a mini car show. Saturday sessions will focus on fish health, streamkeepers, restoration, science, education and program elements of SEP and DFO. An example of some of the speakers

sharing their knowledge include research scientist John Candy and Dr. Christine MacWilliams of the Pacific Biological Station, Dr. Brian Riddell of the Pacific Salmon Foundation and DFO community advisors and education coordinators.

Field trips to view different sites in the region have been organized as well as other activities such as bird watching on Saturday and Sunday and a trip to historic [Barkerville](#) on Sunday, May 21.

The workshop registration package—which can be downloaded from the [workshop website](#)—includes information on sessions, accommodations and other details such as group bus transportation

from Vancouver to Quesnel. The website also includes links to videos and presentation slides from [past workshops](#).

The workshop early bird registration fee is \$35 (\$50 after April 20). Participants are encouraged to register as early as possible to assist with session and meal planning and to ensure enough coffee mugs for everyone. Past workshop participants know the unique coffee mugs are a popular collector's item (see page 7).

"We are excited to host the 2017 SEP Community Workshop," says Tracy Bond, executive director of the [Baker Creek Enhancement Society](#). "It's an opportunity

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20-year-old Strategic Review of Fisheries Resources for the South Thompson-Shuswap Habitat Management Area updated

In 2016, the Fraser Basin Council (FBC) completed a review and update to the 1997 *Strategic Review of Fisheries Resources for the South Thompson-Shuswap Habitat Management Area (HMA)* document. The Thompson-Shuswap HMA is dominated by Shuswap, Little Shuswap and Mara Lakes, which arguably comprise the most socially, economically and ecologically



Eagle River east of Sicamous. The channel and wetlands adjacent to Highway 1 are some of the best juvenile coho habitat in the Shuswap and South Thompson

important large-lacustrine ecosystem in B.C. They provide vital spawning, rearing and migration habitat for four species of anadromous Pacific salmon, including the world-famous lower Adams River sockeye run. The HMA is of great interest to resource managers, First Nations, researchers, stewardship groups, fishers, and a growing population of eco-tourists.

The updated report is a compilation and summary of a wide range of information sources regarding fisheries production and habitat data throughout

the South Thompson-Shuswap. A review of published and unpublished reports as well as field tours and personal interviews informed the update.

Habitat impacts in the HMA are related to past and present land and water uses and increasing development pressures that result in discrete and cumulative impacts on salmon habitat. Forestry and agriculture have a long history in the HMA and have caused some significant and in some cases, irreparable damage to salmon stocks. The recent mountain pine beetle epidemic has exacerbated impacts caused by forestry, with extensive salvage harvesting having taken place in some sub-basins. Urban development in lakefront and riparian areas has increased greatly since the 1997 document resulting in notable impacts to fish habitat. Invasive species such as perch and zebra and quagga mussels are a relatively new threat to salmon within the HMA.

In the HMA, watershed management priorities are to protect habitat and prevent significant impacts, and restore damaged habitat in priority locations. There are also two notable enhancement opportunities: re-establishing the upper Adams River sockeye run, and restoring passage above Wilsey Dam to spawning and rearing habitat in the middle Shuswap River.

It should be acknowledged that protecting habitat has become increasingly difficult for fisheries management personnel with recent regulatory changes that have shifted responsibility



Our iconic Adams River in September

away from government regulators onto resource management professionals. It should also be noted that resource development sectors have improved drastically from what they were decades ago with new understanding of ecological interactions, better technology, and societal expectations for good stewardship.

The original (1997) and updated (2016) documents can be read in full or downloaded from the [Fraser Basin Council's website](#). The 2016 update was completed by staff in Fraser Basin Council's Thompson Region, with support and guidance provided by Bob Harding, SEP staff member and habitat partnership and stewardship coordinator for DFO's B.C. Interior Area. Funding for the project was provided by the federal Habitat Stewardship Program and the Thompson-Nicola Regional District. ●

—Erin Vieira,
Associate Regional Manager,
Thompson Region, Fraser Basin Council



Update on review of Fisheries Act changes

In 2016, the Government of Canada conducted a [Review of Environmental and Regulatory Processes](#) focused on restoring lost protections and introducing modern safeguards to the *Fisheries Act* and the *Navigation Protection Act*. The review included extensive [public consultation](#), providing the opportunity for individuals and organizations to speak before the Standing Committee on Fisheries and Oceans ([watch video](#) of Zo Ann Morten of The Pacific Streamkeepers Federation speaking). In February 2017, the Standing Committee presented their report: *Review of changes made in 2012 to the*

Fisheries Act: Enhancing the protection of fish and fish habitat and the management on Canadian fisheries to Parliament. The report and details of the review can be viewed on the Standing Committee of Fisheries and Oceans' [website](#).

[The Fisheries Act](#) gives government the authority to manage Canadian fisheries and to protect their habitat, and is one of the five key pieces of legislation which guide the work of the DFO. For updates, including upcoming meetings, check the DFO's Consultation Secretariat's [website](#).

Courtenay's École Puntledge Park Elementary celebrates first Salmon Day with festival and mural unveiling

September 22nd, 2016 marked the first "Salmon Day" for the Ecole Puntledge Park Elementary in Courtenay. Students and staff celebrated the return of the pink and coho salmon inhabiting Morrison Creek, a significant spawning channel running through the school grounds. School activities throughout the week included salmon dissections, salmon smoked on site in a traditional smokehouse, and workshops to engage the students in helping with stream enhancements. K'ómoks First Nation storytellers shared the legend of [Queneesh](#), the great white whale, the name given to the Comox glacier which has played an important role in local First Nations' history, recounting a time when a great flood inundated the land.

To wrap up the school events for the day, the community was welcomed to enjoy live music, school exhibits and plenty of fresh-smoked salmon to eat. Interactive displays from Department of Fisheries & Oceans (DFO), the Morrison Creek Streamkeepers and the Comox Valley Land Trust provided fun activities for all ages, from creek spawning tours to bug identification workshops, real killer whale



teeth to touch, and a life-sized model of a salmon weir. In all, 400 people of all ages—many of them visiting the site for the first time—participated in Salmon Day.

Another highlight of the day was the unveiling of the school's new mural by local artist Tracy Kobus featuring Morrison Creek surrounded by ferns, lily of the valley, maples and Douglas firs, a raven and a western tree frog. Coho salmon are seen spawning and a Morrison Creek lamprey—an endangered species exclusive to the Morrison Creek waterway—is also

depicted, as well as the totem image of Queneesh from the pole by Kwakiutl chief and carver Calvin Hunt. The mural is intended to nurture appreciation for the salmon's life cycle and reflect the children's learning journey, while building awareness for future conservation practices. The entire project was produced by Dan Vie and the Community Arts Workshop Society, with support from local Rotary Clubs and the DFO. ●

—Dan Vie,
Community Arts Workshop Society



Salmonid Enhancement Operational Guidelines online

A Compilation of Operational and Planning Guidelines for the Salmonid Enhancement Program (DFO, 2016), covering topics such as brood stock collection and spawning, is available for use by SEP hatcheries. These guidelines are a companion document to *A Biological Risk Management Framework for Enhancing Salmon in the Pacific Region (DFO, 2013)*, which characterizes all elements of SEP operations used to manage and mitigate risk including enhancement guidelines, procedural direction, planning, and information in the literature. The guidelines, as compiled in this document, are a key component of SEP's risk management approach.

SEP also has a *SEP Production Planning: A Framework (DFO, 2012)* that describes the integrated planning process used to develop production targets that address specific DFO objectives. The process involves SEP, Fisheries

Management, Stock Assessment and others, and considers species interactions, harvest issues, habitat capacity, project capacity, effects on wild salmon, and assessment requirements. The framework documents, together with the recent guideline compilation, describe how SEP currently does business and support DFO's management and decision-making..

These documents can be found online in the new [Federal Science Library \(FSL\)](#). The DFO Library is a member of the FSL, a partnership of seven federal science libraries that have joined together to establish a one-stop, self-serve portal. The FSL gives researchers and the public a new tool to search, access, and download—wherever possible—multiple government collections and repositories in digital format including more than 34,000 DFO items in digital format.

Intensive care for salmon in Parksville

Standing next to Englishman River in full flood is humbling. The torrent roars down its short path from Mt. Arrowsmith's snowpacks with only a few kilometres of coastal plain before entering Georgia Strait. Vancouver Island University (VIU) professor John Morgan leads us away from the river's noisy main stem to the quiet waters of the C.W. Young side channel. John points out the well-designed channel system's features and he confirms the importance of Community Fisheries Development Centre's (CFsDC) stewardship efforts here. Like the salmon, John returns each November with his VIU natural resource management students, to monitor the side channel where Bob Grant of CFsDC and his team of volunteers tend the channel and its fish year in and year out. Overhead, an eagle calls; at stream level, a bobbing dipper seems to reply before taking flight underwater, in search of food.

Along the path, carcasses underfoot are evidence of bear nightlife. Signs of

beaver hint at a legacy of coho rearing pools. Thick salmonberry bushes hang over stream, ready to drop insects for little fish to come; returning chum and coho crowd the side channel. This is a familiar story where diverse people come together for fish. Central to this story is Bob Grant of CFsDC, retired fisherman and a champion of side channels. Bob and volunteer commercial fishermen take care of these fish and their efforts should be lauded. He remains humble and parallels his work with an intensive care unit: it brings the endangered river back from the brink and helps keep the fish alive. Yes, there is escapement but it is static and the chum return was unexpected. Bob thinks the Georgia Strait ecosystem has changed. It could be pollution; it could be other species like hake, seals and sea lions; it could be a combination of factors, no one really knows. Meanwhile CFsDC's ICU continues life support.

In stream, students monitor returning adult salmon, helping us understand how



VIU Natural Resource Management students conduct stream observations during adult salmon survey in CW Young side-channel on the Englishman River. Students love learning the skills, doing useful work and learning in nature's classroom.

well restoration is working. The students count, identify and record observations on diversity, behaviour, redds and carcasses. They enjoy working in nature's classroom. They also care deeply and understand our dependence on a healthy environment. Their dreams and Bob's work give us all hope. ●

—Anne Stewart,
Ocean Smart Coordinator,
[T. Buck Suzuki Environmental Foundation](#)



Pacific Streamkeepers Federation

Mid-February, emails began arriving telling of fry, up and swimming, in streams. Fish spotting can be a year-round activity; getting us out and about in our watersheds, walking the trails, talking to neighbours, or exercising with an old friend. Keeping our [fishy calendar](#) up to date is a great way to include new volunteers into your group and to keep your active volunteers being exactly that...active.

However, just when you think you have your group's calendar of monitoring timing under control, things can often go awry! For example, the [Squamish Streamkeepers Society](#) have been monitoring their area's salmon return for quite some time now and have regular crews go to predetermined areas on the streams to count returning salmon. They have their start days to begin their monitoring walks and scheduled viewing times, but this year, it just didn't seem

to end. Things slowed right down, but then "hello, another one" and they began to hear of other fish sightings after they had thought the counts could end for the season.

To capture the excitement of this late-season flurry of fish sightings, Matt Foy, retired DFO area chief and biologist from the Lower Fraser area, came up with the idea for the "Streamers Let's Have a Coho" contest where prizes (offered by Matt Foy) will be given to the person(s) who spots the last coho to enter our local streams/spawning channels this year. Rules: Take a dated photo, if possible, and send me an email on the same day as you see your fish. The time and date of the email will determine the winner. Anyone can go anywhere across B.C. to find their prize-winning coho. To date, Allan Chamberlain spotted nine coho in the Mashiter spawning channel, Patrick MacNamara saw six coho in Brennan Channel, while

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SEP Workshop hatching soon!

May 19-21, 2017, Quesnel, B.C.

Don't miss out—register now! Workshop registration package now available on the workshop [website](#).

Host: Baker Creek Enhancement Society. **Partners:** DFO, Pacific Streamkeepers Federation, Pacific Salmon Foundation

Salmonids in the classroom worldwide: Spotlight on New Zealand

Fish in Schools was developed by Fish & Game Zealand, a non-profit organization comprised of 12 regions and funded by the sale of licenses. Similar to B.C.'s *Stream to Sea* educational program, *Fish in Schools* has operated for several years in the North Canterbury region of New Zealand's South Island, with more than 30 schools enlisted in the program.

Deliveries of eyed chinook eggs arrive from the North Canterbury hatchery for students to raise in the classroom in specially-constructed tanks. With the support of teachers and Fish & Game staff, students become stewards to the salmon, testing the water quality and watching the development from egg to fry. The students study the anatomy of an adult salmon that has been freshly harvested and receive an overview of its life cycle. It seems that examining the eyes and brain are most exciting, with discussions over who gets to take them home to show the rest of the household! Fish & Game staff answer

questions and demonstrate how to fillet a fish to cook. The whole experience is concluded by preparation of fresh salmon cuisine. As several children usually claim to have never tasted salmon before, it offers a hands-on learning experience.

Fish & Game New Zealand is also working on a new *Schools to Stream* package with plans to implement it into the New Zealand curriculum alongside the *Fish in Schools* program next season. This resource focuses on connecting students to the land and environment, as well as encouraging active involvement in the well-being and future sustainability of New Zealand. Key concepts include: water quality is important to sustain life; all living things have a life cycle and the contribution of freshwater fishing to New Zealand's economy. The *Schools to Stream* program will be a valuable tool for teaching children about the importance of water quality as many New Zealanders are now becoming aware of the deteriorating



All elbows to get to the front as Lochiel School children excitedly touch and feel the outside of an adult salmon donated to our program.

water quality after many years of intensive agriculture.

The goal is to extend the program throughout New Zealand, creating a positive learning experience that will spark a lifelong interest in maintaining a sustainable ecosystem for younger generations. ●

— Erin Garrick, ,
Fish & Game New Zealand,
Southland Region

2017 SEP Community Workshop

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to raise the profile of salmon and salmon habitat in our community and to show off how beautiful the Quesnel region is, which has so much to offer in terms of cultural and natural history."

The SEP community workshop is held with support from DFO, Pacific Streamkeepers Federation and the Pacific

Salmon Foundation.

More than 200 people from across the province are expected to attend this year's workshop. To date, a total of twelve workshops have been held in various locations, touching on a range of topics relating to watershed stewardship. The first workshop was held in Port Hardy in 1991 to recognize the enhancement community, focusing on volunteers and their contribution to the Pacific fishery. Since then, the event has continued on a biennial basis, recognizing community

participation and showcasing local fisheries, education, science, watershed stewardship, and restoration initiatives.

The community workshop is a great opportunity for those passionate about salmon enhancement and stewardship to come together to share ideas, learn new skills, have fun and celebrate the accomplishments of the program and everyone who has played a role in the success of SEP over the past 40 years. See you there! ●

Workshop mug shots

Past workshop participants know that the unique, handmade coffee mugs created for each SEP community workshop are a popular collector's item. The wheel-thrown mugs, traditionally decorated with a salmon motif (and a frog, for the 2007 Williams Lake conference) are designed and crafted by talented local potters. Not only are the mugs a memento of the workshop, they also help protect the environment by reducing waste.

At right is a photo album of some of the mugs from previous community workshops which can also be viewed [online](#).



Pacific Streamkeepers Federation

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the Mamquam spawning channel revealed two fish to Michele Davidson. "Howe Sound John" submitted a [video](#) as evidence of his Ashlu Creek sighting. Competition is getting fierce so get out there, keep your eyes peeled and cameras ready.

I'm looking forward to seeing fellow streamkeepers and others at the SEP Community Workshop 2017 in Quesnel, May 19-21. Both Spawner monitoring Module 12 and Juvenile fish identification Module 11 will be covered during the fabulous [selection of sessions](#). If you



Photo: Zo Ann Morten

A stellar day at the mouth of Mossom Creek. No fish sighted this day but three moved in two days later and were spotted by one of these newly trained volunteers.

have any questions about the workshop, please contact me at (604) 986-5059 or email: pskf@direct.ca. ●

—Zo Ann Morten, Executive Director,
[Pacific Streamkeepers Federation](#)

StreamTalk

To receive [StreamTalk](#) by e-mail, please contact Joanne Day at Joanne.Day@dfo-mpo.gc.ca with the subject line "StreamTalk by e-mail."

StreamTalk

is published collaboratively by Fisheries and Oceans Canada and stewardship, enhancement, education and streamkeeper groups in B.C. and the Yukon that care for salmon and their habitat.

You will find past issues of [StreamTalk here](#).

The current issue can be viewed [here](#).

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STEWARDSHIP CENTRE
FOR BRITISH COLUMBIA

Creating Stewardship Legacies – Celebrating Canada's 150th

The Stewardship Centre for British Columbia (SCBC) has launched [Creating Stewardship Legacies](#), a Canada 150 initiative in partnership with Give Green Canada. The initiative highlights [stewardship champions](#) and is open to other public nominations for champions who will be profiled on the website.

SCBC has also launched a new [Facebook page](#) and [Twitter account—@scbc_updates](#).



Video—The Bowen Island salmon are back

Bob Turner has produced a short film chronicling the return of chum salmon to the Terminal Creek Hatchery Public Involvement Program (PIP) site, thanks to the habitat rehabilitation work of volunteers such as the Bowen Island Fish & Wildlife Club.

[Watch the film](#)



Online Lesson—Endeavour Hydrothermal vents: Canada's first Marine Protected Area

Through class discussions, research, and activities, students in Grades 4 to 4 through 11 will learn about the ocean biome, hydrothermal vents, and more specifically about Canada's Endeavour Hydrothermal vent site and designation as a Marine Protected Area. The [lesson plan](#) was developed by DFO Stream to Sea Education Coordinator, Dianne Sanford, and generously hosted by Ocean Networks Canada.



Short Film—Once Upon a Tide

The Centre for Health and the Global Environment at Harvard Medical School produced a 10-minute film that reconnects the audience to the importance of the marine environment for all life on Earth, including human life. *Once Upon a Tide* can be viewed on the film's [website](#), which also includes accompanying [educational material](#), or [YouTube](#).