

PENINSULA STREAMS & SHORELINES

NEWSLETTER: MAY 2024

*Streams
&
Peninsula Shorelines*
Since 2002



LATEST UPDATES

- Letter from the Executive Director
- Stream Restoration
- Environmental Education
- Outreach
- From The Shorelines
- Rain Gardens for Headwaters
- Stewardship
- PSS RIFFLE RAFFLE!



Scan here for
more information
on our projects

FROM THE EXECUTIVE DIRECTOR

Thousands of volunteer hours, including the many our Board of Directors contribute, go towards our mission every year. I want to take this opportunity to acknowledge our wonderful Directors both past and present.

Those stepping down this year include **Grant MacPherson, Bill Thomas, Daniel Healey, and Derek Miller**. Grant and Bill have been extremely dedicated to Peninsula Streams for many years. While always going above and beyond in generosity with their time, they have both been pivotal in the growth and establishment of Stewardship and Education programs. Beyond their work on various committees and as Directors, they consistently answer our calls to serve their community. Daniel and Derek have also left a tremendous mark on this organization as Directors in policies, strategic planning, and fundraising. We are happy to hear they will continue to support PSS as members at large.

I am happy to introduce the four newest Directors joining us:

Dr. Benjamin Neal is a marine biology teaching professor at the University of Victoria, co-appointed in Biology and Environmental Studies with a background in coral reefs and a current interest in local estuarine systems and salmon ecology. He has a doctorate from the Scripps Inst. of Oceanography in La Jolla, CA, and moved to the island with his family in 2021.

Nicole Vella-Geldart is currently the Project Coordinator for Clean Government within the Climate Action Secretariat branch of the Ministry of Environment. She is an avid birder, botanist, and 'all-around' ecologist and conservationist pursuing a Master of Science in Environmental Practice at Royal Roads University. She is very excited to further her work with the Peninsula Streams Society

North Ross grew up in Saanich, where a love for natural spaces, ecology, and restoration was fostered. He works for the provincial government as a Geospatial Analyst, and volunteers doing wetland restoration work at Rithet's Bog when he's not pursuing epic "thru-hikes" like the PCT and the Continental Divide Trails.

Marine Coursac has a background in marine science and a Master's in Ethnology and Conservation. She has spent the last five years immersed in different cultures around the world and more recently Vancouver Island using her interdisciplinary approach to support conscious leaders, community-based projects, and organizations dedicated to making a positive impact.

Thank you to our Board past and present for the combined decades of service, leadership, and countless hours of dedication to the stream and shoreline ecosystems of this region; without you, this organization would not exist.



Sincerely,
Kyle Armstrong
Executive Director

COLQUITZ RESTORATION AND MONITORING

Peninsula Streams is embarking on an extensive monitoring and research project within the Colquitz River and its receiving waters, Portage Inlet and the Gorge Waterway as part of our BC SRIF project. The program will look towards answering the questions around coho and Coastal cutthroat trout (CCT) outmigration survival rates and bottlenecks, migration timing of different populations, and habitat usage of salmonids in the Colquitz Watershed and its receiving estuary, Portage Inlet.

To answer these questions, we will be utilizing multiple methods targeting both coho and CCT including smolt trapping, Passive Integrated Transponder (PIT) tagging and acoustic tagging.

SMOLT FENCE & PIT TAGGING

The smolt trap was installed April 2, 2024 and involved building a fence structure that spans the width of the river, which directs outmigrating fish through a pipe and into a box. We then go everyday to check the box where we count and measure each fish.

We have also been PIT tagging a portion of the smolts. An antenna array will be installed in the Colquitz later this summer that will allow us to understand migration timing and survival rates.

We've had amazing volunteers helping us monitor the fence and we've seen some pretty cool things including coho, Coastal cutthroat trout, sculpin, lamprey, and much more!



SO FAR, WE'VE COUNTED
OVER

4,000
COHO SMOLTS!



Fisheries and Oceans Canada
Pêches et Océans Canada



BRITISH COLUMBIA
CONSERVATION FOUNDATION



PACIFIC SALMON
FOUNDATION

COLQUITZ RESTORATION AND MONITORING

ACOUSTIC TAGGING PROGRAM

The acoustic tagging program will focus on sea-run Coastal Cutthroat Trout (CCT) to understand their movement patterns within the Colquitz River, Craigflower Creek, potentially Millstream, and their receiving waters: Portage Inlet/Gorge Waterway and Esquimalt Harbour. The program aims to determine the residency times of CCT in estuarine habitats and explore temporal movement patterns across different habitat.

The tagging involves attaching small transmitters to large CCT, which emit unique sound signals detected by receivers strategically placed in the water. We will then install acoustic receivers throughout the Gorge, Portage Inlet, Esquimalt Harbour, and at the mouths of Craigflower, Colquitz, and Millstream Creeks.

GABO RESTORATION

Gabo Creek is a tributary of the Colquitz River, flowing from Rithet's Bog into the mainstem within Copley East Park. It provides important overwintering habitat for coho and cutthroat fry. The creek is essentially a ditch and lacks instream habitat complexity. This coming summer, PSS in partnership with the District of Saanich will restore ~180 m of Gabo Creek. The work will involve digging out deeper pools, building riffles and adding large woody debris and boulders to improve overall complexity. Extensive riparian enhancement will also be completed.



Fisheries and Oceans Canada
Pêches et Océans Canada



Scouting potential receiver locations in the Gorge with a hydrophone



Gabo Creek before restoration - very little instream complexity is present

MÁWUEĆ - HAGAN CREEK RESTORATION WITH TSARTLIP FIRST NATION

IMPROVING HABITAT FOR COASTAL CUTTHROAT TROUT...

Tsartlip First Nation, in collaboration with Peninsula Streams, is leading a long-term project to restore a 1.2 km section of Hagan Creek on the 78 ha property known as MÁWUEĆ in Central Saanich. The project aims to improve habitat for Coastal cutthroat trout and other wildlife. Restoration started last summer where instream restoration enhanced approximately 50 meters of the primary tributary by adding trout-specific spawning gravel, boulders, and cobbles, and removing invasive species, with significant community volunteer support.

Reed canarygrass is by far the largest issue we have to deal with, as it has completely dominated the riparian habitat and is slowly starting to infill the creek itself. We have started addressing it by planting fast-growing native riparian species that will provide shade and prevent regrowth. This work will continue well into the future.

This year's work will be extensive and will include further enhancements that will reconnect the floodplain, improve fish habitat, and build bird and amphibian habitats, followed by extensive riparian planting in the fall and winter.



Drone image of Hagan creek
on MÁWUEĆ



Newly planted twinberry
coming in beautifully



Mike Desjarlais
checking on
dogwood stakes
along the restored
tributary



Mike and Austin collecting
dogwood stakes



Huge cutthroat found within
Hagan Creek



Tsartlip First Nation

EDUCATION



As the school year draws to a close, we are thrilled to reflect on the success of our educational programs. So far this year, we've engaged over 2,000 students, fostering their curiosity and understanding of our local ecosystems. Through hands-on activities and immersive field trips, kids learned about the vital roles of forage fish, aquatic bugs, crabs, and salmon in our waterways. Our programs also highlighted the significance of native plants and the challenges posed by invasive species. It has been incredibly rewarding to see students develop a deeper appreciation for the natural world, and we are excited to continue nurturing the next generation of environmental stewards. Thank you for your ongoing support in making these enriching experiences possible!



Volunteer Appreciation

So far in 2024, volunteers have given over 300 hours to our education programs. We are so grateful for all your help and enthusiasm! If you're interested in volunteering, send Deb an email at deborah.deacon@peninsulastreams.ca.



By the Numbers

*Fry Release & Inverts: ~660
Watershed Education: 538
Rain Garden Education: 22
Creatures of Habitat: 400
BEACH: 259
Yellow Fish: 48
Other: 96
Total: 2,023*

+ more students to come in June!

EDUCATION



Education Highlight: Stream to Sea

This year, we supported Joscilyn Cliff with the Stream to Sea Program. We helped 16 schools between April 17th and May 9th, as they released their fry and identified aquatic bugs!



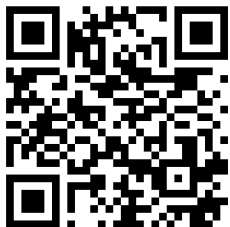
Education Highlight: Creatures of Habitat

Creatures of Habitat at Royal Oak Middle School: 2 Days, 400 Students, 19 volunteers, and a whole lot of invasive plants removed from Mahone Creek's riparian zone.

Note: Starting next year, all our Creatures events will take place in the Fall!



Thank you to our generous funders!



Scan here to help us continue our education programming!



NEW STAFF AND OUTREACH

MEET CHLOE: OUR BIOLOGIST SUPPORT TECHNICIAN

Chloe has a B.Sc. in Marine Biology from UVic and over 3 years of work experience in fisheries science and aquatic ecology. Driven by work that uses a hands-on and collaborative approach to tackle current environmental issues, Chloe is excited to engage in place-based initiatives that directly respond to the needs of her local community and contribute to the enhancement of aquatic ecosystems across Victoria. As our Biologist Support Technician, she assists with environmental education and outreach, Colquitz River monitoring, communications, and the BEACH Program, which she will be gradually taking over.



SEE YOU THERE!

Celebrate Ocean Week Victoria with us! Runs June 1st-9th.



OCEAN WEEK
VICTORIA

June 2nd - World Ocean Day with Shaw Centre for the Salish Sea

Celebrate the ocean at this free community event in Sidney's Beacon Park - interactive and educational booths, science shows, arts & crafts, and more!

June 4th - Gorge Waterway clean and beach seine demonstration

There's no better way to celebrate the ocean than helping to protect it! Join us for an estuary clean and beach seine demonstration at Regatta Point Park.



Scan here for the
full calendar of
Ocean Week events

June 8th - World Ocean Day at Fort Rodd Hill and Fisgard Lighthouse National Historic Sites

Check out Parks Canada's full day of programming at this ocean celebration!

June 9th - 10th Annual World Ocean Day at Fisherman's Wharf

Finish off Ocean Week at this free, family-friendly event that brings together a variety of conservation organizations from around the Salish Sea.

Other upcoming Peninsula Streams events:

July 13th - Power To Be Have A Go Day

July 27th - Eats & Beats Beach Party



BEACH PROGRAM UPDATES

COMMUNITY SCIENTIST FORAGE FISH SURVEYS

Our dedicated BEACH volunteers are stewards of our local forage fish beach spawning habitat, collecting over 1,040 samples since our program began in 2018. Since April 2023, our volunteers have collected 160 samples with 8 new beaches sampled! In this window of time, we've detected surf smelt 34 times and sand lance 10 times. We also conducted 8 training sessions, recruiting 40 new community scientists to our program. A huge thank you to our volunteers and generous funders!

COMING SOON: SHOREKEEPERS 2.0

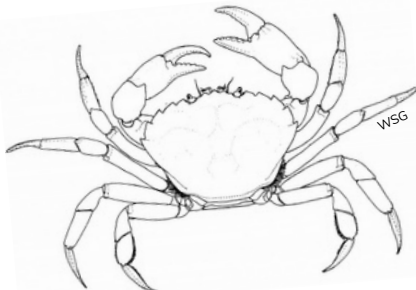
We're excited to be rolling out a new shoreline monitoring program: Shorekeepers 2.0! Using standardized sampling protocols from Washington Sea Grant's Shoreline Monitoring Database, we'll be monitoring different ecological variables at select natural, restored, and impacted beaches. These variables will include things like beach wrack, logs, sediment size, invertebrates, birds, and more. Stay tuned for more details as we finalize the program and begin recruiting volunteers!

CHECK OUT THE WSG SHORELINE MONITORING DATABASE AT WWW.SHOREMONITORING.ORG

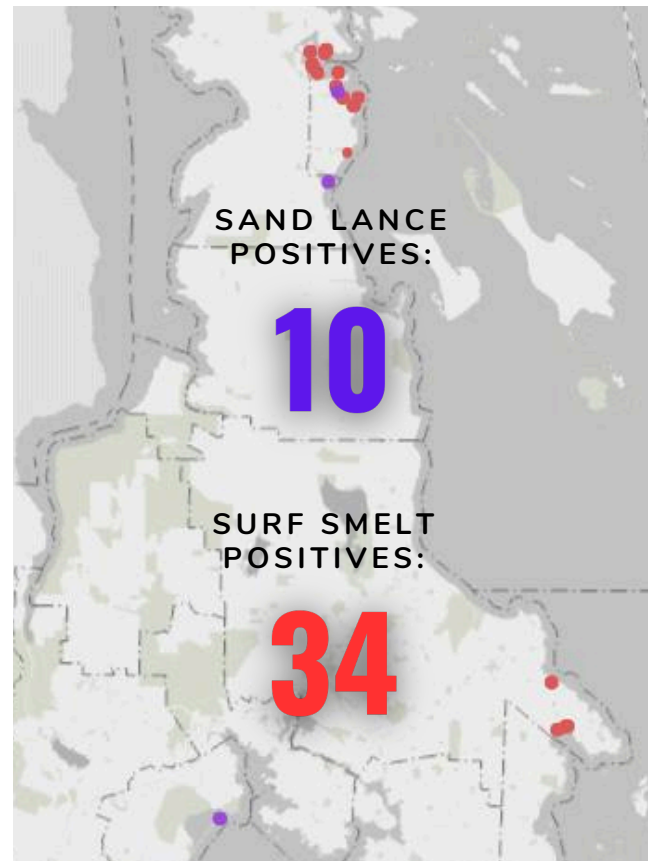
EUROPEAN GREEN CRAB EARLY-DETECTION MONITORING

This summer, PSS will conduct a second season of early-detection monitoring for the highly invasive European Green Crab (EGC). EGC impacts native ecosystems by outcompeting native crab species for food, excavating eelgrass beds while foraging, and feeding on a number of native species. Monitoring will be conducted at Millstream Estuary and an undetermined second site. Stay tuned for the results of our surveys!

Key distinguishing feature of EGC are the 5 spines found to the outside of each eye on the shell



APRIL 2023 - FEBRUARY 2024:



CRAIGFLOWER SALTMARSH RESTORATION

CANADA GEESE, SALTMARSH, AND SALMON

Tidal marsh systems provide important rearing and foraging habitats for many species across life stages including juvenile salmonids. Unfortunately, these habitats have been historically drained or buried as they are ideal areas for industry and settlement. What remains is threatened by hyperabundant Canada geese that graze vegetation and cause erosion of these wetlands.

FINDING SOLUTIONS

'Eco-cultural fencing' - weaving willow whips through alder posts - selectively excludes geese from marsh systems allowing these systems to recover. Depending on the level of erosion, the marsh will recover passively but in some cases a more active approach with soil amendments and planting is required to facilitate recovery. Peninsula Streams volunteers installed fencing in Craigflower Marsh last summer. We also planted in some areas where we amended and raised the soil to trial different treatments.



CRAIGFLOWER TIDAL MARSH CREATION AND BEYOND...

The Town of View Royal awarded a tidal channel and marsh creation project to the Peninsula Streams Society in View Royal Park. In July the marsh restoration project will see tidal channel and marsh bench habitat created. Partners include Swell Environmental, World Wildlife Fund, the Pacific Salmon Foundation, SeaChange, and Guardians Of Our Salish Estuaries. This project will develop capacity for future marsh works in our region and beyond including future marsh creation in View Royal Park, Portage Inlet, Victoria Harbour, and Roberts Bay.

WE ARE LOOKING FOR VOLUNTEERS! IF
INTERESTED, PLEASE SIGN UP ON OUR WEBSITE.



RAIN GARDENS FOR HEADWATERS

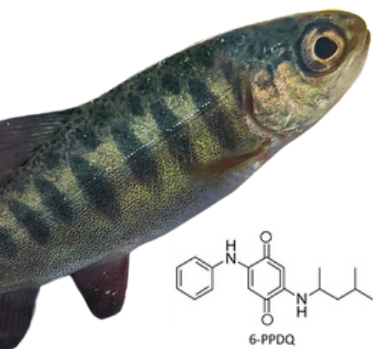
PARKDALE COMMUNITY

A rain garden at the Parkdale Church and Early Childhood Centre is shovel-ready and set to be built this summer. The garden will be able to filter over 100,000 litres of rain water annually and provide an outdoor educational space for children attending the daycare. Community members have had an active role in project design and are looking forward for the project to get underway.

URBAN STORMWATER & 6PPD-Q

Water quality sampling over the past year has shown that many of our urban creeks can have concentrations of a tire compound known as 6PPD-quinone that is lethal to coho salmon. We are hard at work with our partners to mitigate contaminated stormwater from being flushed into our creeks through building rain

gardens, point-source monitoring, and education of the public as well as industry. Healthy Victoria salmonid populations are possible so please do your part to reduce your impact by remembering that all storm drains lead to fish-bearing creeks!



UPCOMING PROJECTS

We have many other Green Stormwater Infrastructure projects on the horizon, including rain garden builds at numerous schools within SD61. Thank you to all of our partners and funders for helping make the 'Rain Gardens for Headwaters' program possible!



WE ARE LOOKING FOR RAIN GARDEN VOLUNTEERS! IF INTERESTED, PLEASE EMAIL: JUSTIN.BUDYK@PENINSULASTREAMS.CA

COMMUNITY STEWARDSHIP

BEACH CLEANS

Our volunteers have been hard at work on urban beaches the last few months, cleaning up over 4.5 km of shoreline and removing 600+ pounds of marine garbage! Car parts, propane tanks, and microplastics are just a fraction of what they were able to collect. Keeping the intertidal zone clean is important to reduce ocean pollution and protect sensitive species such as sand lance and surf smelt which use these beaches to spawn. Our next beach clean is scheduled during Ocean Week Victoria; please consider coming out to support this important work.



STEWARDSHIP HIGHLIGHT

This past Earth Day, dozens of volunteers joined us in Centennial Park to pot over 500 different coniferous tree seedlings; these will be cared for throughout the summer by Watershed Stewards and transplanted into one of our many restoration sites this fall in Greater Victoria. Later successional species, like red cedar and Douglas fir, provide long-term cooling for creeks as well as stabilizing of root networks to hold stream banks together and create habitat for salmon. We look forward to having these little seedlings tower over us in a few decades' time!



TESTIMONIAL

"Since joining this Stewardship Group, I feel like I'm doing something important for the planet by helping to restore habitat, and am constantly learning and creating community in the process."

*-Dora Stroud,
The Friends of Millstream Watershed*

**IF YOU ARE INTERESTED IN BECOMING A
WATERSHED STEWARD OR
STREAMKEEPER, PLEASE CONTACT
JUSTIN.BUDYK@PENINSULASTREAMS.CA**

OUR LEGACY IS YOUR LEGACY

Did you know that by including us in your estate plans, you can provide long-term financial support for our restoration, conservation, stewardship, and education programs?

The Peninsula Streams and Shorelines Fund is a planned giving program established in partnership with the Victoria Foundation, which hosts and independently manages the fund on our behalf.

Your donation will be pooled with others in our permanent endowment fund. Income from the fund will be distributed annually to us by the Victoria Foundation to support our programs.

By giving even a small portion of your estate to our fund, you can leave a lasting legacy to your community and still support those you love.

You can make cash donations to the fund, bequests in your Will, or gifts of assets such as stocks and insurance. You may also be able to save on taxes.



**VICTORIA
FOUNDATION**

Please contact us to learn more.
Alternatively, consult your estate
planning advisor, or visit the
[Victoria Foundation](#).

WORKING TOGETHER

Peninsula Streams and Shorelines is honoured to work within Coast and Straits Salish Territory, the Territories of the Lekwungen-speaking Peoples, known today as Songhees and Esquimalt Nations, and the W̱SÁNEĆ Peoples, known today as W̱JOLEŁP (Tsartlip), BOKÉĆEN (Pauquachin), STÁUTW (Tsawout), W̱SIKEM (Tseycum), and MÁLEXEŁ (Malahat) Nations. We are deeply grateful for our partners within these Nations, and look forward to our continued work, achieving our shared goals, and strengthening our bonds as stewards of the environment.



TEAMWORK MAKES THE DREAM WORK!

Please reach out to become a corporate sponsor!

1ST ANNUAL PSS 2024 RIFFLE RAFFLE
& 50/50 DRAW!

STARTS: JUNE 20TH
EARLY BIRD: AUG 16TH
FINAL DRAW: SEP 28TH

PRIZE TICKETS:

1 FOR \$20

3 FOR \$50

10 FOR \$100

50/50 TICKETS:

1 FOR \$5

5 FOR \$20

10 FOR \$30

20 FOR \$50



2024 SPRING AUCTION
RAISED OVER \$20,000
FOR STREAMS &
SHORELINES!

