

**PACIFIC SALMON
FOUNDATION**



PSF MARINE DATA CENTRE
MARINE SCIENCE PROGRAM NEWSLETTER

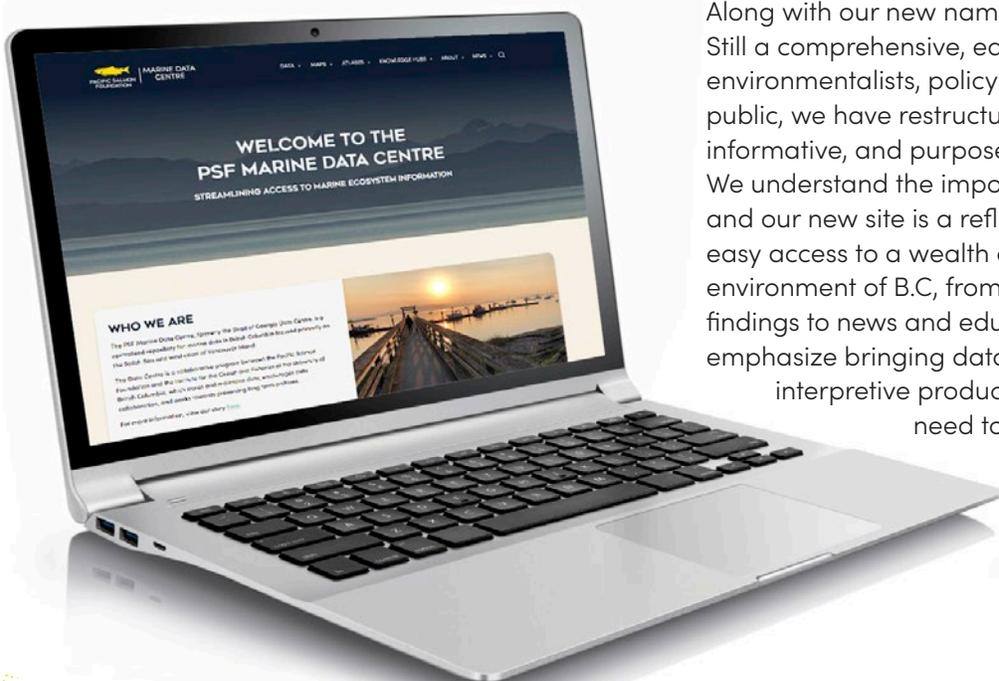
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After 13 years as the Strait of Georgia Data Centre, we are thrilled to announce that we have officially rebranded. Intrigued? In this newsletter, we share all about our new name and website, along with some of our recent products!

INTRODUCING OUR NEW NAME AND OUR NEW WEBSITE

In recent times, our metadata records and products have been expanding beyond the Strait of Georgia to include the west coast of Vancouver Island and other areas of coastal B.C. Therefore, we've decided to adopt a new name to better reflect our goal to be a one-stop-shop for all B.C. marine data: the **PSF Marine Data Centre**. No need to worry though, as the Strait will continue to be a key geographic area in our products. This change is not just about a new name, it is about embracing our renewed commitment to environmental stewardship, scientific research, and the protection of the marine ecosystems that are vital to Pacific salmon. Our new name is a symbol of our progress, our aspirations, and our drive to make a meaningful impact in preserving the B.C. marine ecosystem. As we continue our journey, we are excited to bring our users along, and we hope this new identity resonates with you as much as it does with us.

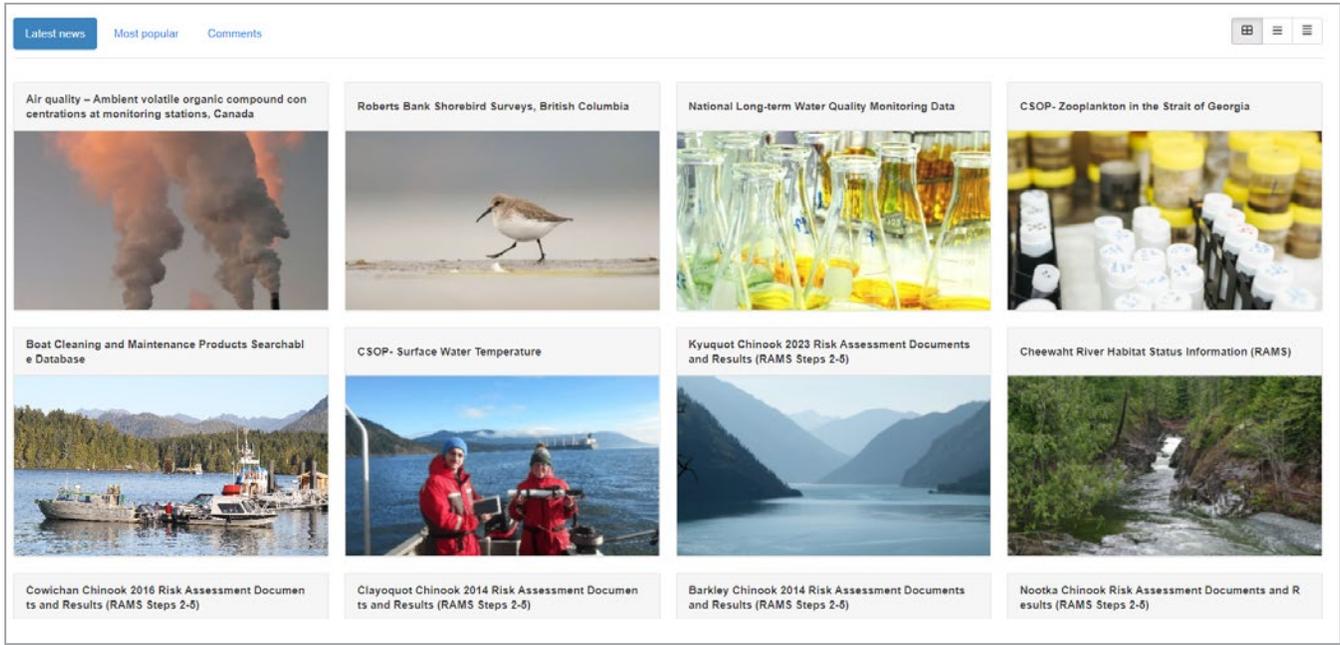
Along with our new name, we have also enhanced [our website](#). Still a comprehensive, easy-to-access resource for researchers, environmentalists, policymakers, educators, and the general public, we have restructured our site to be more intuitive, informative, and purpose-built to showcase our resources. We understand the importance of accessibility and clarity, and our new site is a reflection of both. The website provides easy access to a wealth of information about the marine environment of B.C, from detailed datasets and research findings to news and educational materials. As always, we emphasize bringing data to life through visual maps and interpretive products — ensuring everything users need to stay informed and engaged is just a click away. The intuitive navigation and responsive design means our users can find what they need with ease, from any device.



WE HAVE DISTRIBUTED OUR CONTENT IN FOUR MAIN SECTIONS: DATA, MAPS, ATLASES, AND KNOWLEDGE HUBS

DATA

Our Data section is a comprehensive repository of scientific information and research findings. Here, you can access a wide array of datasets, literature, and so on. This is an invaluable resource for researchers, policymakers, and anyone interested in understanding the intricate details of our marine environment.



MAPS

The Maps section contains a catalogue of pre-formatted interactive and non-interactive maps on a variety of marine topics, from herring spawn distributions to locations of aquatic conservation NGOs. Additionally, you'll find the Marine Ecosystem Map, formerly the Marine Reference Guide, an interactive tool that allows users to explore our complex and dynamic marine ecosystems (you can learn more about it [here](#)). The map integrates various data layers including species distributions, oceanographic conditions, and human activities, providing a holistic view of the region. Users can customize their experience by selecting specific data layers to visualize relationships and trends within the ecosystem.

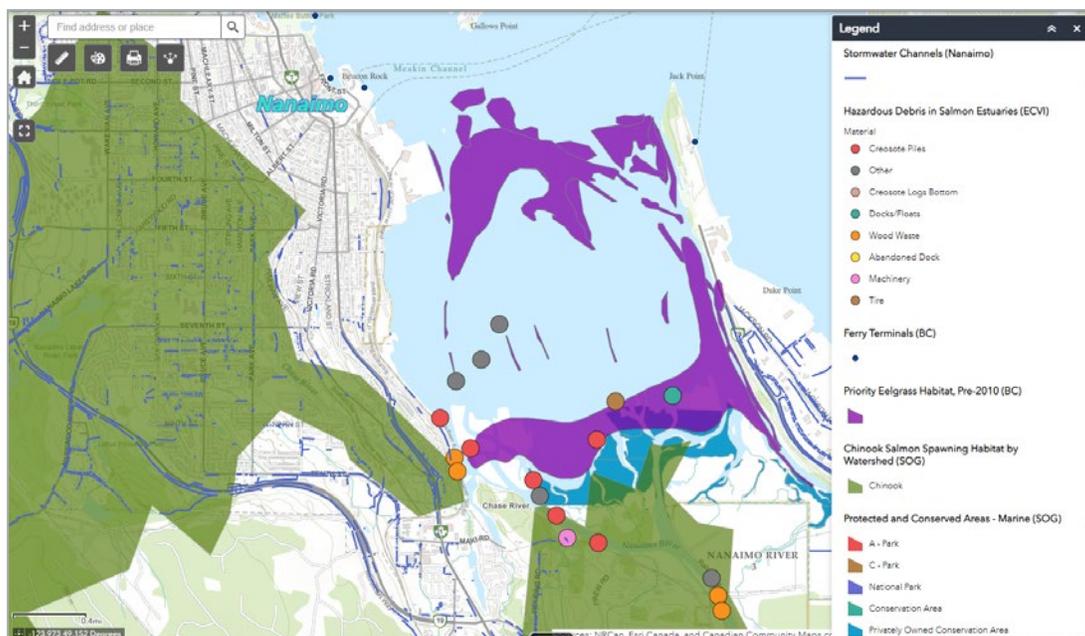




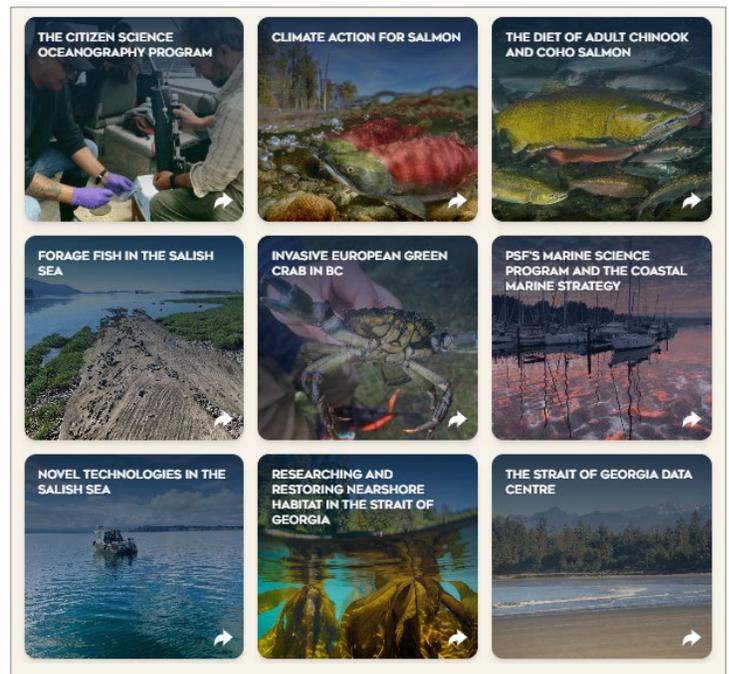
Photo by Nicole Christiansen

ATLASES

The Atlases section offers a collection of detailed maps and visualizations, specialized on a specific topic. Currently, we house three atlases that cover various aspects of B.C.'s marine ecosystem: the Atlas of Oceanographic Conditions, which showcases data from PSF's Citizen Science Oceanography Program; the Contaminants Atlas; and the Restoration Atlas. We will introduce these two atlases in more detail in the next section of this newsletter. Whether you are a scientist seeking spatial data, or a student looking to visualize complex environmental patterns, our atlases provide an intuitive way to explore the region's ecological dynamics.

KNOWLEDGE HUBS

Our Knowledge Hubs house all of our educational and informative pages. Each page in this section is dedicated to specific topics related to Pacific salmon, including Story Maps, ecological insights, and the human connection to salmon. This section is central to fostering collaboration and information sharing among the marine research community.



Read the engaging and interactive stories found on the Storytelling page in our Knowledge Hubs section [here](#).

We invite you to explore our [new website](#) and discover all the resources, tools, and information we have to offer. Whether you are a researcher looking for specific datasets, a student searching for specific materials, or someone passionate about marine conservation, there is something here for you. Take a moment to navigate through our various sections. Our goal is to equip you with the knowledge and tools to make informed decisions and take meaningful action in preserving our marine ecosystems.

Thank you for being a part of our community.

Welcome to the next chapter of the PSF Marine Data Centre's journey!

FEATURING OUR NEWEST TEAM MEMBER: NATALIA GARCIA-ARIAS

Natalia (she/her) is a 3rd-year Computer Science undergraduate at the University of British Columbia and has joined us through the UBC Co-op program. She has taught robotics, programming, game development, 3D modelling, and digital art at UTG Academy, a learning centre for Grade 1 to 12 students. In her free time, she enjoys reading, bird-watching, and playing guitar. Driven by a passion for technology and its potential to address global challenges, Natalia's curiosity led her to her current studies. She is focused on contributing positively to the community, combining her love for technology with a commitment to environmental sustainability.

During her time at PSF, she has supported the Marine Data Centre BC with the development of the Community Salmon Restoration Atlas, the Contaminants Atlas, and the creation of the Boat Cleaning Products Dashboard.

Learn about each of these products:

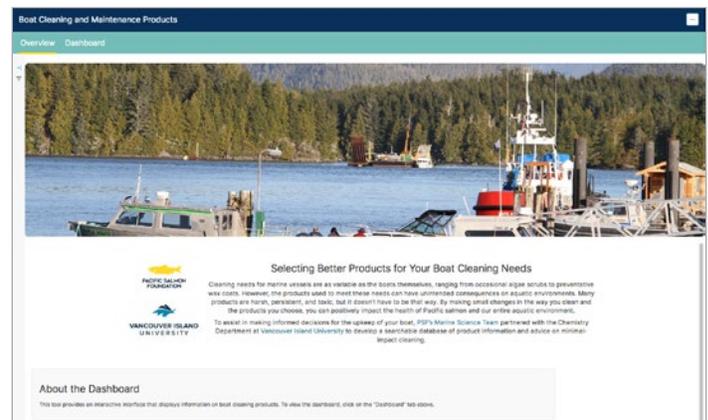
The Community Salmon Restoration Atlas (under development) is an interactive tool showcasing community-driven salmon habitat restoration projects in British Columbia. It features a map and digital catalogue, highlighting key information for assessing project activities. The data come from projects funded by PSF's Community Salmon Program (CSP), with an aim to incorporate other NGO funded restoration projects in future. Natalia played a crucial role in building a clean, standardized dataset of Community Salmon project data, meticulously extracting information from project reports, and developing a prototype web application.

The Contaminants Atlas is a georeferenced data collection of environmental samples related to contaminant analysis in the Salish Sea, sourced from various reports and studies since the 1970s. The Atlas is designed to facilitate data access and raise awareness about marine contaminants and their effects on the food web, promoting further scientific research. Natalia participated in the release of the first draft of the Atlas, the launch of a dedicated [webpage on the Data Centre website](#), and engagement with leading scientists and organizations to gather feedback and explore collaboration opportunities.



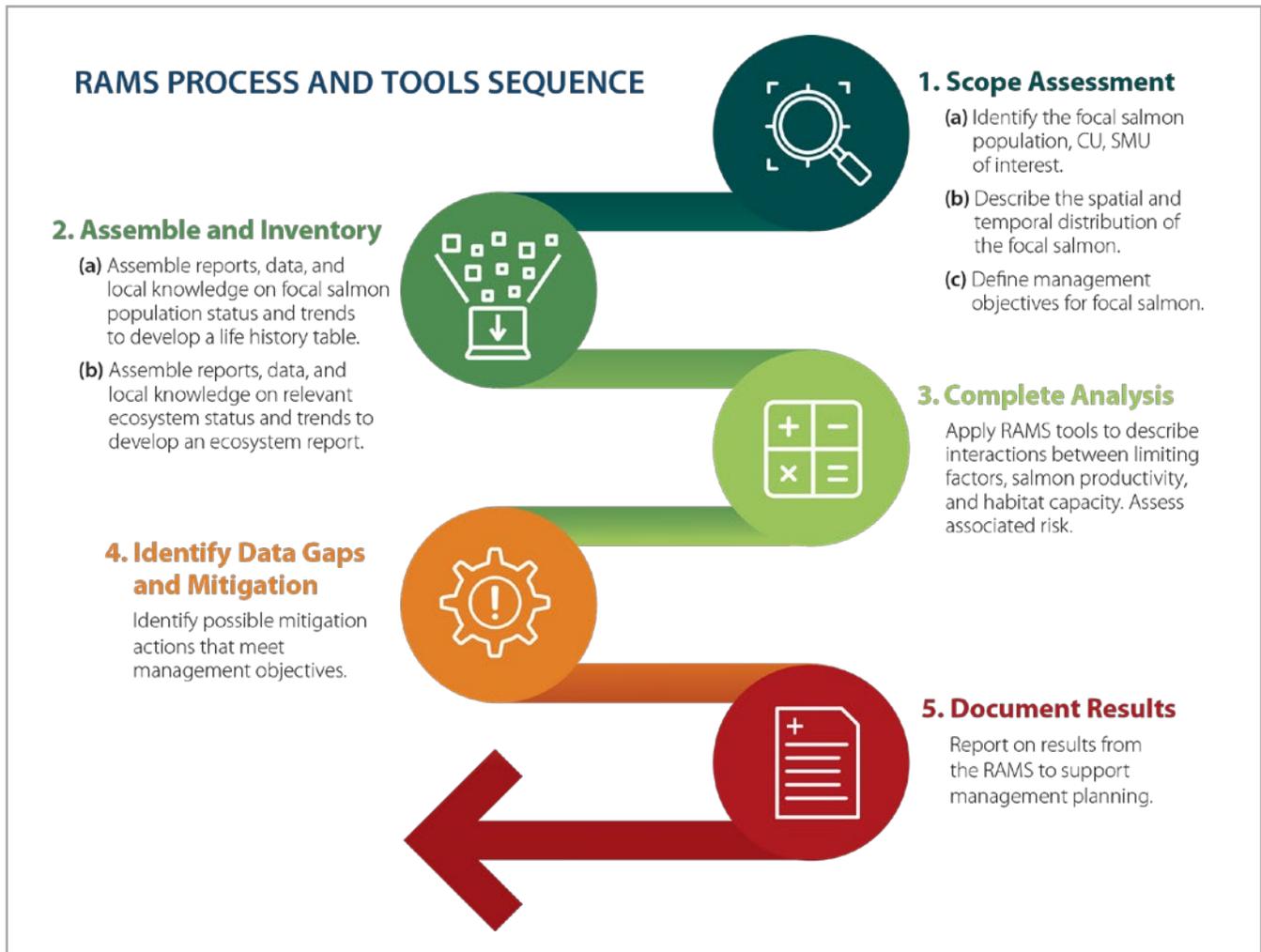
The Boat Cleaning Product Dashboard is a searchable [database of boat cleaning products](#) that have been assessed for their environmental safety in aquatic environments. The project was a collaboration with Vancouver Island University's Chemistry Department and helps users make informed choices to minimize their impact when seeking products for their boat cleaning and maintenance needs. For more information see this [newsletter](#) that features the summarized results. The dashboard and newsletter have been circulated amongst the boating community.

We are happy to announce that Natalia will continue to form part of the Data Centre's team, transitioning into a new role as our Software Implementation Technician.



RISK ASSESSMENT METHOD FOR SALMON

INTRODUCING OUR NEWEST PAGE: [RISK ASSESSMENT METHOD FOR SALMON](#)



The Risk Assessment Method for Salmon (RAMS) is the newest addition to our Knowledge Hubs

WHAT IS RAMS?

Pacific salmon face numerous threats throughout their lifecycle, from habitat degradation and climate change, to overfishing and pollution. These challenges are complex and interconnected, making it essential to adopt a systematic approach to assessing the risks their populations face. RAMS provides a comprehensive framework for identifying, evaluating, and mitigating these risks in a way that is both scientifically robust and practically applicable.

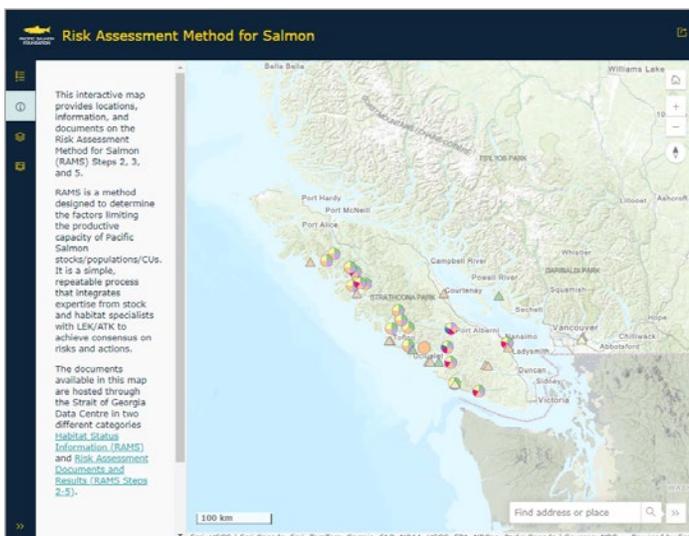
Initially, RAMS was designed to support the Wild Salmon Policy, and over time, it has been adapted to support Recovery Potential Assessments for stocks being considered for listing under the Canadian Species at Risk Act. More recently, it has been adapted for supporting Rebuilding Plans for stocks prescribed to the Fish Stock Provisions of the Fisheries Act and efforts to support integrated assessments for Pacific salmon. This method is a structured approach designed to evaluate and enhance the health of salmon populations. It combines a set of processes, such as limiting factor analysis and risk ranking, with practical tools like maps, habitat status reports, and life stage tables. These elements are applied in a series of steps, often in collaboration with expert workshops.

RAMS is a carefully structured process designed to guide the recovery, restoration, and rebuilding of salmon populations. It involves:

- **Scoping** the scale of the assessment needed for recovery or restoration efforts,



- **Assembling** existing data on salmon populations and their ecosystems,
- **Assessing** and prioritizing factors that limit the current and future productive capacity of salmon,
- **Identifying key knowledge gaps** to direct scientific research or monitoring, and outlining potential mitigation options, and
- **Monitoring, reviewing, and re-evaluating** recovery and rebuilding strategies within an adaptive management framework.



This tool provides a systematic approach to ensure that efforts to protect and enhance Pacific salmon populations are informed, targeted, and adaptable to changing environmental conditions.

Our site includes background information, as well as a description of RAMS and its goals, and an interactive tool. This tool provides a glossary and a map that displays the habitat status information and RAMS processes conducted in BC to date, and links to all the publicly available documents and reports.

We invite our users to visit this page on our website to explore this new resource in detail. As always, your feedback and engagement are invaluable to us. Thank you for your continued support and commitment to marine conservation.

LATEST STORIES

LOG BOOMS, ESTUARIES, AND SALMON

We recently created a [Log Boom Story Map](#), in collaboration with British Columbia Conservation Foundation (BCCF) and Cowichan Tribes. This interactive article offers a detailed exploration of the historical use and environmental significance of log booms in the Strait of Georgia. Things covered in this story include:

- Historical insights that detail the origins and evolution of log booms in our region. You'll learn more about their role in the logging industry and their impact on local communities and ecosystems.
- Information on how log booms stored in estuaries have impacted salmon and local ecosystems.
- Results from a six-year study led by Cowichan Tribes with BC Conservation Foundation and PSF show the presence of log booms and low river flows have detrimental effects to the survival of returning Cowichan Chinook.
- Also highlighted are alternate strategies for log handling practices to lessen the impact on salmon .



Dive into this [story](#) and explore how these structures have affected Pacific salmon in the Strait of Georgia.

CREATING RESILIENT AND CLEAN COASTS FOR SALMON

The PSF Marine Data Centre BC and [Resilient Coasts for Salmon](#) teams collaborated on a [Story Map](#) to highlight ongoing efforts to protect Pacific salmon habitats through coastal restoration and stewardship resources. The Resilient Coasts for Salmon project emphasizes the importance of clean water and healthy coastal ecosystems for sustaining salmon populations. Key activities include mapping shoreline armoring features such as seawalls on the east coast of Vancouver Island, providing resources for eco-friendly practices, and engaging communities in restoration work. By restoring and stewarding vital coastal areas, we aim to ensure a resilient environment where salmon can thrive.

In addition to protecting salmon habitats, the Resilient Coasts for Salmon project seeks to enhance public awareness about the environmental challenges facing our coasts. Through collaboration with local communities and stakeholders, the project encourages the adoption of sustainable practices that reduce



pollution and safeguard marine life, and support shoreline resilience to changing conditions like sea level rise. By combining scientific research with hands-on restoration efforts, this initiative aims to create long-term solutions that benefit both salmon and the broader ecosystem, ensuring the health and resilience of our coasts for future generations.

Explore this [story](#) to learn more about coast resilience, salmon and coastal modification, and ways in which you can help as a community member.

[Sign up](#) for our Marine Science quarterly eNews and never miss a newsletter!

FOR FURTHER INFORMATION, PLEASE CONTACT:

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