

# About the Sessions

Plenary Session: Building Resilience in the Salmosphere - 9:30 am to Noon with a break in the middle

2019 is the focal year of the **International Year of the Salmon** initiative. In contribution to the initiative, the Salmonid Enhancement Program is hosting an interactive plenary session to explore what communities can do to ensure salmon and their habitats are conserved and restored. As the International Year of the Salmon initiative aspires toward the vision that salmon and people are resilient in a changing world, this plenary will introduce you to resilience, describe the state of the Salmosphere and explore, with YOU, ideas for building resilience in the Salmosphere. This is a rare opportunity to bring experts, individuals and groups from across the region together for a shared discussion.



### Session 1: Early Afternoon 1:00 - 2:15 pm

**Archaeology from Stream to Sea** Archaeologists study the ways people lived in the past. On the BC coast they work closely with First Nation communities to understand some of the ways the First Nations' ancestors have shaped, managed, cared for and lived on the land and sea for millennia. In this presentation, archaeologist Nicole Smith, will talk about some of the things she sees, including traditional fishery, transportation, forestry and mariculture technologies, on a walk from stream to sea.

**<u>Lab</u>**: Fish Prints / Fish Art 101 - create a salmon work of art with paint – this is a "hands on" activity!

**Just do it! Easy Rain Gardens to hone your skills & gain street cred** The task of restoring watershed function / groundwater recharge can feel daunting, but the cumulative impact of many very simple efforts can be significant. Go through a checklist of important considerations and review some case studies with Deborah Jones.

**Lifestage: Egg to Fry** New strategies and techniques for optimum survival. Understand what is happening inside the egg as we handle them from first division of their cells to ponding.

Microplastics in coastal ecosystems and our daily lives (and what you can do about it) This presentation will provide background on microplastic pollution, what it is and the potential impacts on coastal ecosystems. Results from local research on microplastics in shellfish, fish and their habitats will be presented, along with ways that microplastic enters our daily lives and what we can do about it.

**Salmon Genomics in Enhancement** Genetic markers are being employed to inform conservation and management of salmon stocks. Three practical applications will be discussed from an enhancement perspective.

**Tracking Our Salmon, Tools & Techniques For a Better Understanding** Join DFO Biologists Jason Mahoney and Kevin Pellett to learn about the variety of tagging, marking and tracking options available to help us gain a better understanding of our salmon. Jason will give an overview of some of these options and Kevin will speak to how he uses these techniques when he is working on the Cowichan River.

**Transformational: Salmonid Enhancement Program Past, Present, Future** Join Corino Salomi for a look at the evolution of salmonid enhancement in BC and the importance of hatcheries in the present day and in to the future.

Session 2: Late Afternoon 2:45 - 4:00 pm

**Aquatic Invasive Species in BC** Overview of both freshwater and marine Aquatic Invasive Species (AIV) in BC. Existing and future concerns will be discussed, along with new tougher legislation and avoidance programs.

Chinook Salmon Diet Studies: new insights and a call for participation As part of the Salish Sea Marine Survival Project we have been investigating the diets of juvenile and adult Chinook Salmon. Juvenile diet information, combined with tagging studies, is providing insights into factors which may control juvenile survival. Adult diets are being developed as a tool to monitor changes in the marine food web, and we are seeking the help of community groups and salt water recreational anglers to facilitate sample collection.

**Demystifying Engineering Drawing** The role of SEP community members has changed significantly since the program began in 1977. Many volunteers now engage with various levels of government and developers when proposals come forward in their communities and are asked to comment on plans. Join Al Jonsson, Senior Restoration Engineer from the Lower Fraser for an introduction to reading and interpreting drawings.

**Health & Safety – Do you have a plan?** Join in the conversation to understand how health & safety plays a role in your organization and what can be done to lower the potential risk of an accident or incident occurring. Let's have a plan, before a plan is needed.

<u>Lab</u>: Salmon Anatomy dissection Explore the wonders of salmon anatomy through a real- life demonstration and learn how to give an engaging presentation in a classroom or at a public event.

**Lifestage: Juvenile Rearing** Participants will learn about recommended fish culture strategies from fry to release and the importance of mimicking natural processes in the hatchery. Strategies and techniques for optimum survival.

**State of the Southern Resident Killer Whales** Join Dr. Andrew Trites, overseer of the Marine Mammal Research Unit at UBC to learn more about this iconic marine mammal.

**Wild Salmon Policy Implementation Plan: Moving from Policy to Action** Sharing opportunities for
Government and Streamkeepers to work together in support of the implementation of the Wild Salmon Policy.



# About the Sessions

### Session 3: Early Morning 9:00 - 10:15

**Beavers ....** Beavers are known for their natural trait of building dams on rivers and streams - how do we share the same spaces?

**Fish Culture: Broodstock collection, handling and best management procedures** Overview of the SEP Hatchery Production Planning process, methodology for broodstock capture, handling, transport and holding.

**Fisheries Act and ORR** Be informed about the changes to the Fisheries Act and understand how Observe, Record, Report triage concerns to Fisheries Protection Program staff for action.

**Lifestage: Egg to Fry** New strategies and techniques for optimum survival. Understand what is happening inside the egg as we handle them from first division of their cells to ponding. (REPEAT)

**Looking Back to Move Forward: A Restoration Perspective** Join Matt Foy and Mel Sheng, newly retired DFO Resource Restoration Biologists, for a journey into the salmon habitat restoration arena. They'll discuss their lessons learned from the past thirty years of working in the restoration field, to help us plan and implement well thought out and functional projects for the future.

<u>**Outdoor Classroom:**</u> Measuring Water Quantity and Quality Many issues can impact and threaten the supply of cool, clean water to our local streams. Streamkeepers Modules 2 and 3 provide protocols for detecting and diagnosing water quantity and quality problems that may affect stream health and aquatic life. Participants in this fun hands-on workshop will learn how to use the basic equipment needed to assess stream flow and monitor water quality.

**Plankton and Salmon: the secret to the marine food web.** Join Ian Perry on an exploration of the marine food web of BC, from algal blooms to zooplankton, salmon, and whales, and how this ecosystem has been changing. The session will include an opportunity to look at zooplankton using a microscope.

**Recent Environmental Conditions and Links to Salmon Productivity** This presentation will provide an update on recent anomalous environmental events in the eastern North Pacific and describe current projects that aim to monitor potential impacts on populations of Pacific salmon.

### Session 4: Late Morning 10:45 - 12:00

**BC Salmon Restoration and Innovation Fund (BCSRIF)** Let's talk – participate in an interactive discussion on BCSRIF and potential project ideas.

**Lifestage: Juvenile Rearing** Participants will learn about recommended fish culture strategies from fry to release and the importance of mimicking natural processes in the hatchery. Strategies and techniques for optimum survival. (REPEAT)

### **Outdoor Classroom: Aquatic Invertebrates**

Invertebrates play an important role in the aquatic food chain and are indicators of water quality. You will identify and count stream bugs to learn how much natural food is available in-stream for your fry after release. Streamkeepers Module 4.

**Outdoor Classroom: Beach Seine** Complete a beach seine in Departure Bay and gather ocean life to explore habitat needs of our juvenile salmon as they transition to the ocean.

**Roundtable** The large circular table where King Arthur and his knights sit... or an opportunity to meet with stakeholders, local community and various levels of government to develop plans and solutions to support healthy watersheds and communities. Learn why and how roundtables can work and what those effective qualities look like.

**Stress & Health: Roadblocks & Superhighways to Disease** Stress and health are intricately connected. Using a common bacterial pathogen as an example, find out how a

a common bacterial pathogen as an example, find out how a fish's experiences can affect the outcome of interactions with the microscopic organisms they naturally coexist with.

Supporting Citizen Science – RDN's Community
Watershed Monitoring Network The CWMN offers many insights for how to collaborate across community, local government, industry and provincial agencies, to better track and understand the health of our streams. Regional District of Nanaimo staff will share their experience working with this initiative and describe the successes, challenges and opportunities that citizen science can offer.

### Session 5: Sunday Morning 9:00 am - Noon (NOTE: this is both Sunday morning sessions combined)

Outdoor Classroom: Honouring our Snuneymuxw History: Salmon Petroglyphs and Salmon Stewardship

Join Gary Manson, a Snuneymuxw First Nations Elder, to visit a sacred salmon petroglyph site and learn more about Snuneymuxw connections to salmon – from salmon ceremony to fisheries management.

Participants must be prepared to hike approximately 20 minutes each way on a rough trail, including stairs.

# Outdoor Classroom: Forage Fish

Join the Mount Arrowsmith Biosphere Region Research Institute (MABRRI) to learn how to sample for forage fish embryos! This workshop will include an explanation of their ongoing citizen science program, as well as a hands-on opportunity to conduct the sampling yourself.



# WORKSHOP REGISTRATION

NAME OF WORKSHOP PARTICIPANT: Complete one registration form for each Adult person attending the Workshop. Presentation Selection: Please choose one Topic for each Workshop Session period. \*Exception – If you are choosing to attend a Session 5 Outdoor Classroom session on Sun, June 2<sup>nd</sup> – be aware that these run from 9:00 am to Noon and so don't make selections for Sessions 3 & 4. Saturday, June 1st - Early Afternoon Sessions 1:00 pm - 2:15 pm ☐ No Session selected Archaeology from Stream to Sea Lab: Fish Prints Just do it! Easy Rain Gardens to hone your skills & gain street cred Lifestage: Egg to Fry Microplastics in Coastal Ecosystems and our daily lives (and what you can do about it) Salmon Genomics in Enhancement Tracking Our Salmon, Tools & Techniques For a Better Understanding Transformational: Salmonid Enhancement Program Past, Present, Future. Saturday, June 1<sup>st</sup> – Late Afternoon Sessions 2:45 pm - 4:00 pm ☐ No Session selected Aquatic Invasive Species in BC П Chinook Salmon diet studies: new insights and a call for participation Demystifying Engineering Drawings П Health & Safety - Do you have a plan? Lab: Salmon Anatomy dissection П Lifestage: Juvenile Rearing П State of the Southern Resident Killer Whales Wild Salmon Policy Implementation Plan: Moving from Policy to Action Sunday, June 2<sup>nd</sup> - Early Morning Sessions 9:00 am - 10:15 am ☐ No Session selected Beavers .... Fish Culture: Broodstock collection, handling and best management procedures Fisheries Act and ORR Lifestage: Egg to Fry (REPEAT) Looking Back to Move Forward: A Restoration Perspective Outdoor Classroom: Measuring Water Quantity and Quality Plankton and Salmon: The secret to the marine food web Recent Environmental Conditions and Links to Salmon Productivity Sunday, June 2<sup>nd</sup> – Late Morning Sessions 10:45 am - 12:00 pm ☐ No Session selected BC Salmon Restoration and Innovation Fund (BCSRIF) Lifestage: Juvenile Rearing (REPEAT) П **Outdoor Classroom**: Aquatic Invertebrates Outdoor Classroom: Beach Seine Roundtables П Stress & Health: Roadblocks & Superhighways to Disease Supporting Citizen Science – RDN's Community Watershed Monitoring Network \*Workshop Session 9:00 am – Noon (this is both Sunday morning sessions combined & limited capacity) Outdoor Classroom: Honouring our Snuneymuxw History: Salmon Petroglyphs and Salmon Stewardship **S**2 Outdoor Classroom: Forage Fish



# SCIENCE ON THE MOVE FOR JUNIOR STEWARDS "Watershed and Salmon Fun"

Do you have a school aged child (5-12) that may accompany you to this workshop?

Nanaimo Science and Sustainability Society's (NS<sup>3</sup>) Science on the Move mobile science van brings fun, hands-on science activities and traveling educators to this community event so that your children can join the fun while you attend workshop sessions. More info at: <a href="http://nanaimoscience.org/">http://nanaimoscience.org/</a>

\$35 early bird/\$50 late registration per child

# June 1, 2019 - 9 am to Noon and 1 to 4 pm\*

- Create a watershed to explore the concepts of watersheds, rivers, runoff, and human impact
- Explore salmon migration, and life cycles with a salmon spawning game and life lottery
- Field trip to Colliery Dam Park

# June 2, 2019 - 9 am to noon

- More ecosystem and nature learning
- Possible field trip

(\* lunch included, although supervision not provided over the lunch hour, children must dine with parents)

For those travelling from the Mainland – please consider walking on the ferry and let us pick you up at the Departure Bay ferry terminal and transport you to Vancouver Island University on Friday, May 31 <sup>st</sup> . We will return you on Sunday, June 2 <sup>nd</sup> to catch the ferry on your return trip.  Please reserve a seat for me on the Shuttle Bus:  Arriving Fri. May 31 <sup>st</sup> leaving Horseshoe Bay at 3:30pm  Leaving Sun. June 2 <sup>nd</sup> 1:15 pm Departure Bay  Leaving Sun. June 2 <sup>nd</sup> 5:45 pm Departure Bay						MEAL RESERVATIONS  Please reserve these refreshments / meals for me during the Workshop. All are complimentary except Dinner, which is an additional \$5 (see payment).  Friday, May 31 Evening Appetizers  Saturday, June 1 Lunch  Saturday, June 1 Dinner (\$5)  Sunday, June 2 Lunch (to go)  Please help us plan our catering and help to avoid food waste				
MAILING ADDRESS						CITY POSTAL CODE				
EMAIL					TEL	CELLULAR PHONE				
PAYMENT * Early Bird registration savings end May 1st *							REGIS	TRATION	SUBTOTAL	
Attend Life in the Salmonsphere Workshop  EARLY REG LATE REG  \$50									<b>→</b>	
Science On The Move For Junior Stewards  Emergency contact and medical info (food allergies) for children may be requested at drop off.  CHILD'S NAME  AGE SESSIONS ATTENDING  REGISTRATION  REGISTRATION  EARLY REG LATE REG										
☐ Sat. June 1st ☐ Sat. June 1st & Sun. June 2nd ☐ \$35 ☐ \$50									<b>→</b>	
CHILD'S NAME AGE SESSIONS ATTENDING EARLY LATE  Sat. June 1st Sat. June 1st & Sun. June 2nd \$35 \$50									<b>→</b>	
Saturday, June 1 <sup>st</sup> Dinner						# People		@ \$ 5 =		
Sunday, June 2 <sup>nd</sup> Optional Field Trip to Newcastle Island						# People		@ \$ 30 =		
2019 SEP Community Workshop T-shirt						# T-Shirts		@ \$ 25 =		
White organic cotton @ \$25 each / pre-order required							ayment i			
Please select the number of shirts required by Unisex size:						Please make cheque or money order payable to:  SEP Community Workshop `19				
XS S	М	L	XL	2XL	3XL	PO Box 281 Cassidy, BC VOR 1H0				
Let's put you on display! Let us reserve you to share your group's activities, proj solutions and innovations. Please reserv   My group's display My trade show products Power Supply Table Wall s									jects, creative	

# Life in the Salmonsphere

## **PROGRAM HIGHLIGHTS**

# Friday, May 31st

5:30 pm Registration Opens / Poster Display Opens 6:30 – 9:00 pm Complimentary refreshments / No Host Bar ~ Entertainment – Jazz band ~

7:00 - 8:00 pm Community welcome

### Saturday, June 1st

8:00 am Registration Opens / Poster Display Opens

8:00 am Refreshments available

8:30 am Welcome and Instructions

9:30 – 12:00 Building Resilience in the Salmosphere Plenary

~ Complimentary Lunch ~

1:00 - 2:15 pm Workshop Sessions

~ Health Break ~

2:45: - 4:00 pm Workshop Sessions

4:00 - 6:00 pm Tour / Demos

6:00 pm No Host Bar

6:30 pm ~ Dinner ~

7:00 pm Welcome

~ Evening Entertainment ~

# Sunday June 2<sup>nd</sup>

8:00 am Refreshments available

9:00 - 10:45 Workshop Sessions

~ Health Break ~

10:45 - Noon Workshop Sessions

/ Outdoor Field Sessions

~ Complimentary Lunch "to go" ~

1:00 pm Field trip – Saysutshun / Newcastle Island Adventure

#### **GO GREEN**

Help keep our workshop's ecological footprint small -Please bring your own carry bag, water bottle, notebook and writing materials.

We are minimizing our footprint through -

- onsite accommodation
- planned dining
- group transportation
- online registration



Please join Hosts

# The Nanaimo River Stewardship Society



at Vancouver Island University 900 Fifth Street, Nanaimo British Columbia V9R 5S5 Report to Welcome Centre for Registration

With support from:

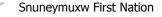


Fisheries and Oceans

Pêches et Océans Canada



Pacific Streamkeepers Federation







### ONLINE REGISTRATION NOW AVAILABLE!!

Please consider our new online, paperless registration option at:

Eventbrite: 2019 Community Workshop
Registration

Contact Melissa Nottingham for online registration questions at (250) 746-5137

Registration is also available by mailing a registration form for each individual, with attached cheque or money order payable to:

SEP Community Workshop '19 PO Box 281 Cassidy, BC VOR 1H0

Contact Laura Nemeth-Pellett for registration information at: Tel (250) 245-7780 | workshop@nanaimoriverhatchery.ca

For additional Workshop information with updates: SEP Community Workshop

Workshop Registration

- \$35 Early registration (before May 1<sup>st</sup>)
- ♦ \$50 Late registration (after May 1<sup>st</sup>)

**VIU Accommodation** @ \$55/night + 15% tax flat rate includes:

- Single or double room as specified with shared bathroom
- · Linens & towels
- Complimentary shampoos
- Complimentary coffee, tea & continental breakfast
- Free parking / Walk to workshop

# ACCOMMODATION We've reserved some spa

We've reserved some space at the Vancouver Island University Student Residences – please call VIU Student Residence front desk at **250-740-6640** to book a room under the group reservation "Community Stewardship Workshop".

Additional accommodation options here:

https://www.tourismnanaimo.com/where-to-stay

# SAYSUTSHUN ~ NEWCASTLE ISLAND MARINE PROVINCIAL PARK ADVENTURE

Catch a ferry, learn about the history of Newcastle/Saysutshun Island, explore the nature trails and enjoy the cultural experience on the afternoon of Sunday, June  $2^{nd}$ . Expect a few surprises... visit <u>Saysutshun</u>.



# **Building Reference**

- 105 Equipment Storage
- 108 Trades Discovery Centre
- 110 Heavy Mechanical / Carpentry Shop
- 115 Electrical Technologies Complex
- 120 Facilities Services & Campus Dev.
- 130 Welding Shop
- 140 Storage
- 150 Automotive Shop
- 155 Motorcycle / Marine Shop
- 164 Hairdressing / Barbering
- 165 Classrooms
- 170 The Gathering Place
- 177 Offices
- 179 Offices
- 180 ASTEC
- 185 Bakery / Cafeteria Lower

- 190 Gymnasium
- 193 Students' Union / Students' Union Pub
- 200 Student Affairs
- 205 Academic & Career Preparation
- 210 Health & Science Centre
- 250 Faculty of Management Centre
- 255 Centre for International Education
- 300 Administration / Cafeteria Main
- 305 Library / Campus Store / I.1. / Print Shop
- 310 Theatre / University Relations
- 315 Physics
- 320 Music
- 325 Visual & Applied Arts
- 330 VIEW Gallery & Exhibition Centre
- 335 Childcare / Offices
- 340 Faculty of Arts & Humanities Offices

- 345 Faculty of Arts & Humanities Classrooms
- 350 The High School at Vancouver Island University
- 355 Arts & Sciences
- 356 Education / Social Sciences
- 359 Offices
- 360 Math / Chemistry
- 365 Log Cabin
- 370 Environmental Sciences
- 373 Centre for Shellfish Research
- 375 Hatchery / Tank Farm
- 376 Aeration Tower
- 380 Fisheries & Aquaculture / P.I.A.F.
- 385 Soils Lab (A.E.R.L.)
- 390 Header House
- 391 Greenhouse
- 395 International Centre for Sturgeon Studies

