

## SEHAB June 2024: Sunshine Coast Roundtable Report

Community Advisor: Jim Wilson

Rep: Angela Kroning  
Alternate: Dianne Sanford

This spring has seen a buzz of activity regarding salmon enhancement, stewardship and educational activities on both the upper and lower Sunshine Coast. As can be read below, Jim Wilson, our Community Advisor, has been at all these varied activities; his efforts continue to be appreciated.

The Sunshine Coast is still waiting to be introduced to the Stewardship Advisor(s) and learning about how they will assist the community; ditto can be said for the representative of the Habitat Restoration Centre of Expertise. The community wonders if the Stewardship Advisor could help with, for example the Sunshine Coast Salmon Enhancement Society's concerns with the reduced Environmental Flow Need proposed by the upstream Sunshine Coast Regional District. Similarly, could the SA assist the SC Streamkeepers Society present their concerns regarding the impacts to salmon habitat by BC Timber Sales' proposed logging in the Roberts Creek watershed? It would also be very helpful if the Stewardship Advisors could be the liaisons between community steward/restoration groups and local First Nations. Having one professional apply on behalf of any local group for permission from the appropriate local First Nation would streamline the process immensely.

With respect to working with First Nations on restoration projects, the SC Conservation Association has identified an issue with the funding required for archeological/cultural/environmental assessments. As these assessments are now legally mandated by both levels of senior government, it should not fall upon volunteer organizations to have to fund raise to cover these additional costs. The monies for such assessments should be made available from the appropriate government program.

### **Sunshine Coast Salmon Enhancement Society (Chapman Creek Hatchery) -**

- Incubation, 2023/24 season:
  - Coho survivals were 93.3% with 20,549 fish ponded to rearing Apr 10<sup>th</sup> and 30<sup>th</sup>.
  - Pink survivals were 85.4% with 107,412 fish in 3 groups separately ponded between Feb 14<sup>th</sup> and March 27<sup>th</sup>.
  - Chinook survivals were a dismal 20.5% with 14,400 fish ponded. During the later stage of incubation sometime between Thurs, Feb 29<sup>th</sup> and Mon, March 4<sup>th</sup> we lost all water flow to one complete incubation stack, and most of the flow to a second stack, these held all of our Chinook. The culprit was debris (leaf and needle) from somewhere in the hatchery plumbing getting loose, flowing downstream and plugging 2 of 11 spigots on the water supply header trough that supplies creek or well water to the individual incubation stacks. A total of 5 trays were lost on one stack and 3 trays were lost on the second stack. These Chinook were 2 to 3 weeks away from ponding when this happened. Mortality was 55,300 or 79.5%. 2 of our 6 incubation stacks that were being used were affected by this incident, a third spigot on a

pink stack had some debris in it but the flow was still adequate with no ill affect, the 3 others were not affected in any way.

- This upcoming summer we plan on opening up the flows as much as possible through all the incubation plumbing, hopefully flushing as much debris out as possible so this doesn't happen again, or at least reduce the possibility. This is not the first time this has happened here, there is at least one other incident in the past where flow was lost to an incubation stack that caused significant mortality. In 2021, with the atmospheric river event the incubation spigots were plugging up with debris constantly for roughly a 3 day period. The intake pond inlet screen was compromised during the flooding and this allowed all kinds of debris onto our hatchery plumbing. It was a constant battle to keep many of the valves and spigots clear and flowing for some time during and after this event.
- Rearing:
  - Coho, 2022 brood juveniles – 22,200 adipose clipped smolts were released to Chapman creek May 18<sup>th</sup> and 23<sup>rd</sup> 2024.
  - Coho, 2023 brood juveniles – 20,400 fry are rearing here, these will be adipose fin clipped in mid Oct 2024 and released next year in May or June 2025.
  - Pink, 2023 brood juveniles - 106,900 fry were released in 3 groups between Feb 21<sup>st</sup> and Apr 3<sup>rd</sup>. Each group was held and fed for 1 week before being released.
  - Chinook, 2023 brood juveniles – 14,400 smolts were released on May 30<sup>th</sup> 2024.
- On May 1<sup>st</sup> and 2<sup>nd</sup>, Christina Wilson, the DFO's Lower Sunshine Coast Education Coordinator, and 3 helpers had the school groups doing the "Salmon in The Classroom Program" bring their Coho fry to the hatchery to release into Chapman Creek. This year 10 schools participated. The turnout was great with over 300 participants, students, teachers, parents, grandparents, guardians, and helpers over the 2 day period.
- The backup generator project is one step away from completion; we are waiting for the supplier to commission the unit.
- Our ongoing well drilling project to supplement the hatchery water supply is still on hold.
- Visitor numbers were down through the winter and are now climbing as the spring progresses.
- Hatchery volunteer hours were fairly high and holding steady throughout this reporting period.
- Our 3<sup>rd</sup> annual Salmon Release Festival took place on May 18<sup>th</sup>. Individuals from the Sechelt Nation started off the event with a drumming and dancing ceremony. This year's event drew in roughly 1,000 people, along with a few dignitaries, to the hatchery and our neighbours, the Sunshine Coast Rod and Gun Club. There were at least 18 different groups or organizations participating, all from the Sunshine Coast and beyond. They each had interactive displays for everyone to enjoy.
- This year's big project here is going to be the replacement of the hatchery viewing deck beside the creek, new deck boards on the intake pond maintenance access bridge and the installation of 3 wheelchair access ramps to improve the hatchery grounds for visitors.
- We are aware that the Sunshine Coast Regional District has applied to the Province to reduce the Environmental Flow Need (EFN) on Chapman Creek though no one has contacted us directly. We are concerned about the impact this may have on water quantity for the hatchery and water temperatures of the remaining flow on the wild salmon and trout in the Creek.

-Bill Krause, Manager, Chapman Creek Hatchery, Sunshine Coast Salmonid Enhancement Society

## **Stream 2 Sea Program in Powell River 2023-2024**

- *q̣ʷətəm ṭišosəm* 236 eggs/ 234 fry released:

Tla'amin Hatchery supplied chum eggs for most schools this year. These were delivered to schools Jan 10, 2024. They began hatching January 29-30.

- Fry Release at Tla'amin Creek ( also qwetum tishosum):

April 4 and 5, 6 schools, 160 students:

Many helpers: Leonard Harry spoke for the hatchery, Richard and Simon helped students down to the river. Frankie McQuade (Edgehill čεpθ) and Amira A (Westview čεpθ) worked at the big cedar tree (taχamay) station and the gazebo fire, delivering cultural context for the land and water.

Melvin spoke about growing up beside the river, fishpeople, flyers, and little people (microorganisms).

Jim Wilson looked after the fry.

- Lang Creek 42 eggs/ 37 fry released:

Powell River Salmon Society supplied Lang Creek eggs; delivered to Kelly Creek Community School January 11th which were released April 15, 2023.

- Janet May, Education Coordinator

**Sargeant Bay Society** – There will be another online meeting with DFO Engineering, Jim Wilson and BC Parks later in June regarding the installation of the fish ladder (that was damaged beyond repair in the Atmospheric River November 2021) in August. Most of the permitting and equipment is in place. Still some details of some extra expenses coming in but we expect that will be resolved. We have seen smolts emerge from Colvin Lake via the old ladder and so have opened the ladder to drop the level of the lake and make it easier for the smolts to leave.

- Dave Spicer, Director, Sargeant Bay Society

## **Sunshine Coast Streamkeepers Society -**

- Monthly Invasive Plant Removal Event: We recommenced our monthly invasive plant removal on Sunday, March 24, 2024, in the Roberts Creek riparian area. We had the best turnout ever with 24+ community members including young families. We filled 25 green waste bags of ivy! We were recently approved for a grant from PSF to purchase native plants and plan to plant these in the area we removed the ivy in the coming months as well.
- Climate Change and Salmonid Temperature Loggers Project Report: SCSS has recently been contacted by the Pacific Streamkeepers Federation (PSF) for a new project to create a

centralized website for sharing water temperature data collected that will be accessible to the public. Our data will be cited with contact information. By providing PSF with our data and sharing it with other organizations throughout the province, we will have an avenue that shares our locally collected data as widely as possible. This is important as we monitor climate change and its impacts on our streams.

This platform to share the data collected from the temperature loggers is just what we were looking for! So, we are thrilled to say this data will be available on the DataStream website - a national data monitoring service where anyone can find information on any freshwater creek, river or lake across Canada!

The following creek's water temperatures are on the DataStream website: Hutchinson Creek, Langdale Creek, Chaster Creek, Roberts Creek, Malcolm Creek, Wilson Creek, and Chapman Creek. SC Streamkeepers Data <https://doi.org/10.25976/ze3e-xf34>

In the Hubs tab you will find all the regions in Canada (we are Pacific, recently launched): [datastream.org](https://datastream.org)

We are grateful to PSF for the recent approval of a grant request enabling us to expand this project by adding more creeks and multiple locations (i.e. upper and lower), updating older temperature loggers, purchasing PVC or stainless steel pipe to house the loggers.

- Update on Malcolm Creek in (Xwesam/Roberts Creek, BC) & Ch'kw'elhp/Gibson Creek (Gibsons, BC) Culverts Replacement Project: SCSS is part of the Ch'kw'elhp/Gibson Creek/Malcolm Creek Working Group Culvert Replacement Project in solidarity with the Squamish Nation, SCCA and MOTI. There have been Fish Passage Assessments and geo-technical reports done by McElhanney last fall. We are waiting for the culvert design to be determined. The culverts are slated to be replaced with fish friendly culverts. This will allow wild salmon to reach wonderful spawning grounds, previously not accessible.
- Spring 2024 SCSS Juvenile Fry Trapping report:  
In April SCSS placed juvenile traps in both Roberts Creek and Malcolm Creek. We were thrilled to find a total of 11 fish in RC and 13 in Malcolm Creek in the traps the next morning.
  - Malcolm Creek ABOVE culvert: 5 Coho (10.25 cm, 10.0 cm, 11 cm, 9.5 cm, 10.75 cm), 4 cutthroat (8.5 cm, 7.0 cm, 13 cm, 7 cm) and 1 sculpin
  - Malcolm Creek BELOW culvert and benchmark: 3 cutthroat (13.5 cm, 9.5 cm, 12.0 cm) Total: 13 - (5 Coho, 7 cutthroat, 1 sculpin)
  - Roberts Creek (beside benchmark): 9 Coho (11 cm, 11.5 cm, 10 cm, 10 cm, 9 cm, 7 cm, 8 cm, 10 cm, 9 cm); 2 cutthroat (7.5 cm, 13 cm). Total: 11 - (9 Coho, 2 cutthroat)
- Roberts Creek Invertebrate Study: A group of volunteers in April with the help of PSkF (ZoAnn Morten) were able to perform Module 4 - Stream Invertebrate Survey. We collected a total of 117 aquatic bugs and identified them to assess the stream health. We are very grateful for the training ZoAnn provided.
- Roberts Creek Earth Day on April 21, 2024 & Future Events: SCSS had a great day talking with members of the community interested in salmon and who wanted to know what Streamkeepers do! We plan to also have a table at Sunshine Coast Conservation Association World's Oceans Day, Saturday June 8<sup>th</sup> and an event to commemorate World Rivers Day in September 2024.

- Module 3 Creek Assessments: SCSS started the monthly summer Module 3 Creek Water Quality assessments on the following creeks: Roberts Creek, Malcolm Creek, Wilson Creek, Chapman Creek and Gibson Creek. By doing the assessments throughout the summer we record the water quality including the bankful measurements so we have a record of the lowest creek levels of the year throughout the long summer droughts.

- New SCSS Campaign: "Stop the cut blocks in the Roberts Creek Watershed/Save Roberts Creek Salmon":

It was recently brought to our attention of 6 proposed cut blocks located in the headwaters of Roberts Creek. We believe the risks of logging in this vulnerable area of the 3 main upper tributaries of Roberts Creek to salmon and their spawning habitat in the lower reaches is too great. Here is the BCTS 5-year Operating

Plan [https://www.for.gov.bc.ca/ftp/TCH/external!/publish/InformationSharing/DSC\\_OperatingPlan\\_2023-2027/Maps/20\\_PR\\_20K\\_MAP\\_OperatingPlan\\_5YearSchedule\\_20230502\\_MOUNT%20ELPHINSTONE.pdf](https://www.for.gov.bc.ca/ftp/TCH/external!/publish/InformationSharing/DSC_OperatingPlan_2023-2027/Maps/20_PR_20K_MAP_OperatingPlan_5YearSchedule_20230502_MOUNT%20ELPHINSTONE.pdf)

We know that we are dealing with a new normal; weather events (floods, wildfires, droughts) that have not happened before on a scale never anticipated. The effects of climate change must be taken into consideration in making any further decisions in all government levels, federal, provincial, and municipal when hectares of trees will be logged. If we combine the new climate realities with the logging of the proposed 6 cut blocks in Roberts Creek headwaters, we could lose the spawning salmon run in Roberts Creek. The risk to this totally wild, unique and precious salmon run is too great. The higher water temperature due to removal of tree canopies, silt from road building and removal of large 40–80-year-old trees and the longer summer droughts are keeping the usual spawning creeks too low for fish to enter.

The SCSS is opposing these cut blocks for the following reasons:

- 1.) The hydrology report from Polar Technical Ltd. does not adequately address how the removal of trees will put at risk salmon habitat downstream i.e. sedimentation and climate change.
- 2.) There is no mention of the significant salmon run in Roberts Creek. Only one page is dedicated to fish.
- 3.) There is no mention of the blowout of the culvert at nearby Stevens Creek on Lower Road on November 15, 2021.

A letter was submitted to BCTS during the Public Comment period (ending May 4, 2024) on behalf of SCSS listing our concerns. A copy of that letter is on our website. SCSS is planning to hire a Registered Biologist to do a comprehensive fish assessment/report as we do not believe the BCTS commissioned report addressed this vital consideration in logging the headwaters of Roberts Creek.

- Shirley Samples, President, Sunshine Coast Streamkeepers Society

The SCCA continues to co-lead a multi-partnered salmon passage and habitat and restoration pilot project with Skwxwú7mesh Uxwumixw (Squamish Nation), with support from, Ministry of Transportation & Infrastructure, DFO, the Sunshine Coast Streamkeepers Society and the Town of Gibsons. The project will replace culverts and improve salmon habitat in the lower reaches of Ch'kw'elhp-Gibson and Malcolm Creeks. Reformatted engineering reports were reviewed at the May Working Group meeting which highlighted both geotechnical and legal aspects of each area. There are ongoing discussions about funding the legally required **archaeological/cultural and environmental assessments**. **Rising costs have exceeded the MoTI budget. SCCA believes that such funding should either be increased or other departments of senior levels of government make such monies available.** It should not fall upon volunteer salmon stewardship groups or First Nations to raise funds for these essential assessments.

Water quality and fry trapping was conducted on both creeks in May and April. Water quality was good in both creeks in spite of unusually low spring water flows in Ch'kw'elhp/Gibson Creek. Two cutthroat trout were caught above Marine Drive culvert in Gibson Creek.

Late in the winter, a request was received for more information regarding the Fisheries Sensitive Watershed Nominations Project, Dakota Creek in particular. This resulted in members going out in the field to conduct updated water chemistry and fry trapping. L'Dakota is a distributary channel located near the mouth of Dakota Cr.; it was built by SEP in 1995-96. Although long neglected, it still has acceptable water quality and three Cutthroat trout ranging 15-18 cm were trapped just above the culvert on the McNair Forest Service Road.

On May 21, the SCCA attended the Salmon Community Dialogue hosted by UBC's Institute of Oceans & Fisheries in West Vancouver. A lively discussion was had about how local stewards were attempting to rebuild, restore and protect wild salmon and the changes that needed to happen across all levels of government to meet those goals especially in the face of climate change.

June 2<sup>nd</sup> saw the start of the annual week-long Ocean Festival. The line-up of virtual and in-person activities can be found at <https://sunshinecoastoccanfestival.ca/events/>

The SCCA continues to partner with the Sunshine Coast Friends of Forage Fish & Moonstone Enterprises to deliver forage fish egg sampling and eelgrass mapping projects.

-Suzanne Senger, ED, Sunshine Coast Conservation Association

### **Sunshine Coast Friends of Forage Fish**

The Sunshine Coast Friends of Forage Fish volunteer group has been sampling three beaches on the lower Sunshine Coast over the fall and winter months and is now continuing on through the spring and summer. One site is in Sechelt Inlet, one outside facing the Salish Sea on shíshálh Nation lands in Sechelt, and the third site is in Gibsons, close to the harbour.

We have also conducted a couple of education sessions with two classes from local schools, covering what forage fish are, and going out and doing a couple of samplings with the classes. It was a hit (even though it was a wet, rainy day) and requests are in for more, with another confirmed class coming out in June.

Data collection was done using MABRRI data pages, (version: October 2018) with protocols set by Mount Arrowsmith Biosphere Region Research Institute and Vancouver Island University.

-Dianne Sanford, Coordinator, SC Friends of Forage Fish

### **Eelgrass Mapping**

Eelgrass mapping that was done off Roberts Creek in the Salish Sea was completed last summer, and a report was completed. Results were inconclusive, but there was definitely a loss of density of eelgrass shoots overall in the area. Areas of eelgrass polygons shifted in many areas, and two large beds no longer exist, only fragments. This data has been shared with the Sunshine Coast Regional District.

An application to the Pacific Salmon Foundation for funding to assist with mapping in Sechelt Inlet, in order to complete two areas that have not been monitored for eelgrass since 2008 - Narrows and Salmon Inlets, has been successful. Thank you PSF! Mapping will occur over the summer. It will be interesting to survey the many areas that have never been mapped before, plus a couple of previously mapped localities.

-Dianne Sanford, Moonstone Enterprises

Compiled by A. Kroning, June 07, 2024