

SEHAB February 2024: Sunshine Coast Roundtable Report

Community Advisor: Jim Wilson

Rep: Angela Kroning
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The spawner returns for the Sunshine Coast began with the Pinks which showed up in quite high numbers in streams that still had decent water flows in September such as Roberts, Chapman and Dakota Creeks. Roberts Creek is not known as having any kind of significant run in recent memory. Sadly the salmon returning to Dakota Cr were stuck, due to low water depth, below the McNair Forest Service Road where many were likely poached by eager anglers. Although early autumn rains restored water levels for a time, it is thought that the following weeks of low rainfall likely hampered the returning Chum; generally speaking returns were not great. It is possible that some Chum returned later than expected such as at Sargeant Bay. The Chapman Creek hatchery noted an unusually high level of pre-spawn holding mortality among their trapped Coho as well as higher than usual levels of fungus. All these observations – high returns of Pinks, poor returns of Chum and increased disease among Coho is most probably due to climate change and the resulting high water temperatures and low water flows.

A question has come up as to how the Habitat Centre of Expertise will determine which projects to support in a given area. It is understood that a master plan is currently being developed; what will be done in the meantime and how will these decisions be communicated to the local stewardship groups?

Thanks are given to CA Jim Wilson for his efforts at helping everyone with their efforts whether salmon enhancement or salmon stewardship.

Chapman Creek Hatchery -

- Coho, 2022 brood juveniles – 22,282 fry are rearing at the hatchery, these will be released in May 2024.
- Incubation, 2023 brood fish, we are holding 110,000 Pink and 69,000 Chinook alevins along with 22,400 Coho eggs, ponding will commence in late Feb, and go on through May.
- At the end of January, Christina Wilson (DFO Education Coordinator) will be picking up the eyed Coho eggs for the many school groups participating in the Salmon in the Classroom Program on the lower Sunshine Coast.
- Pink adult returns – 232 adults were spawned, Total fish trapped 313 adults from Sept 21 to Oct 4. 114 of these were females. Chapman creek counts officially tallied close to 14,000 total adult returns; unfortunately, we missed the early half of this run due to low creek water conditions feeding the hatchery's intake pond - the effects this past year's drought.
- Coho adult returns - 23 adults were spawned, Total fish trapped 225 adults from Sept 21 to Nov 3, and of these 5 were jacks. Of the 225 fish that returned, only 6 were no marks, a very high hatchery clipped return percentage rate for us at Chapman. Total returns in 2023 to Chapman creek were officially 503 fish, this number includes jacks and the hatchery returns. Of note this season was an

unusually high pre-spawn holding mortality on the Coho adults, 4 different tanks were used for holding and all had roughly the same mortality rates. The fish experienced higher than average water temperatures through the 2023 spawning season. A lot more fungus than typically seen was noticed on most of the adults, very few fish were fungus-free throughout holding. This may or may not have contributed to the higher mortality.

- Chum adults - the hatchery did not see any adults in our fish trap this season, all 2023 returns spawned in the creek. Officially 220 adults were counted, most of these spawned upstream of the hatchery.
 - Chinook adult returns – Officially 2 fish were counted in the creek this year, no fish were trapped at the hatchery. The 2023 brood fish in our incubation arrived as eyed eggs from the Chilliwack river hatchery on Nov 15th, just over 70,000 @ 347 ATU's. Thanks to CA Jim Wilson for transporting them here.
 - New well water plumbing will be installed later this winter for 1 of our smaller 10 foot diameter rearing tanks, currently it is creek water only plumbed.
 - The backup generator project is moving forward, a concrete pad has been poured to hold the generator, conduit has been placed, the generator and associated electrical panels will be arriving in the next week or so, current date is Jan 23/24th.
 - Our ongoing well drilling project to supplement the hatchery water supply is still on hold.
 - Visitor numbers were up this fall, especially through the fishing season, but they are down so far through the winter.
 - Hatchery volunteer hours were fairly high and holding steady throughout this reporting period.
- Bill Krause, Manager, Chapman Creek Hatchery, Sunshine Coast Salmonid Enhancement Society

Sargeant Bay Society –

- Funding made available to DFO Engineering in June to replace the fish ladder damaged beyond repair during the Atmospheric River event November 2021, was suddenly not forthcoming in late November 2023. Requests for assistance at the last SEHAB meeting appeared to have helped. There was a virtual meeting held in early December between Sargeant Bay Society, 2 reps from BC Parks and 3 DFO reps. So looks like things are a go. Kirby from DFO engineering did get the funds allocated to start the build and Sargeant Bay Society did have some funds in our account to help with some material costs. So the fabricator on Vancouver Island should start building in January most likely. It should take about 2 weeks to build and will be stored on the Island until we need it on site next August. We have seen the almost final design drawings and they look like quite a big improvement over the old wooden one. It is longer with a lower slope so hopefully fish can enter easier etc. A plan for a mobility / wheelchair viewing platform on top, instead of the old small bridge, to view Colvin Lake, is being considered too.

BC Parks is arranging archaeological permits and First Nation permissions; we have other water permits that DFO is pulling. So everyone is quite positive. We have had equipment operators on

site already who will be performing the install. We may close the Park for a few days due to heavy equipment and trucks etc. Small steps all the time with this project!

- We have seen a few salmon returning in early and mid -December. The chum were working their way into the system late with the rains.

-Dave Spicer, Director, Sargeant Bay Streamkeepers, Sargeant Bay Society

Sunshine Coast Streamkeepers Society -

- Chekwelp (Gibson) Creek/Malcolm Creek Culvert Replacement Working Group: We have been participating in the monthly working group meetings. Barsanti Environmental Services Ltd. completed and submitted Fish Passage Assessments for both Gibson and Malcolm Creeks. McElhanney completed the topographical surveys on both creeks for the Ministry of Transportation & Infrastructure (MoTI); this report was provided to the Working Group in December. Efforts are underway by MoTI to have the report re-formatted to make it easier review. The installation date of the new culverts is still to be determined.

At the last meeting, a representative from MoTI stated that the department is working on the engineering component to determine what type of culvert will be installed. This is a great benefit to the creeks and salmon as, for example, the Malcolm Creek culvert on Roy Road/Metcalf Road is a fish barrier as it is rusted out. We are hoping for a “fish friendly” natural bottom culvert so the salmon can reach the prime spawning grounds above the existing culvert.

- Climate Change and Salmonid: Temperature Loggers Report: We continue to download the water and air temperature data from nine creeks; they span the distance from Dakota Creek to Chapman Creek. SCSS has recently been contacted by the Pacific Streamkeepers Federation (PSkF) 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 PSkF with our data and sharing it with other organizations throughout the province, we will have an avenue that shares our locally collected data as widespread as possible. This is important as we monitor climate change and its impacts on our streams. In addition, PSkF informed us about Datastreams which is recording temperature logger data and we are looking to add our data to this platform.
- Invasive Plant Removal/Native Planting: Invasive plant removal and native planting will continue in the new year in 2 locations. One of them will be part of the Chekwelp (Gibson) Creek/Malcolm Creek Culvert Replacement Working Group. It was suggested that we organize an event to pull ivy from the trees in the riparian zone of Chekwelp/Gibson Creek on the Squamish Chekwelp Reserve.
- 2023 Spawning Salmon Counts: SCSS conducted spawning counts on the following creeks: Dakota, Langdale, Chaster, Ouillet, Hutchinson, Malcolm, and Roberts Creeks in the fall

of 2023. On one occasion this fall, CA Jim Wilson joined SCSS on Roberts Creek for a spawning count. He came with scuba gear and swam while our members walked the creek. We were curious to see how many salmon we were missing in our counts, and as predicted, Jim counted more than we could see from above, especially in the large deep pools and undercuts. It was a good experience for our volunteers, and they gained experience and knowledge which was a great boost to our group. It has been a banner year for pink salmon in Roberts Creek, Chapman Creek, McNair Creek, and Dakota Creek.

Roberts Creek: 1,206 pink; 313 chum; 25 coho; Total: 1,544

Malcolm Creek: 6 chum; 2 coho; total 8

Chaster Creek: 43 chum; 2 coho; total 45

Langdale Creek: 31 pink

Dakota Creek and McNair Creek: Unable to count, but many pink returns were observed in September.

- Kelly Paddock, Director, Sunshine Coast Streamkeepers Society

Sunshine Coast Conservation Association -

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, MoTI, 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. Engineering reports conducted by contractors for MoTI last winter have been received by MoTI and have now been forwarded to the Working Group to review. MoTI is having portions of the reports reformatted to make them easier to access.

Seven spawner counts by members of the Working Group and the Sunshine Coast Streamkeepers Society were conducted on Ch'kw'elhp/Gibson Cr last season. Although water flow improved dramatically once the autumn rains returned, a lack of rain over several weeks caused the levels to drop to a point where it is believed that Coho passage through the culvert under Marine Drive would have been impossible. No Chum were observed in the passable lower section, but there was evidence of a solitary Coho returning. This is not surprising given the length of time (years) and lack of habitat available to spawning salmon downstream of the culvert. Data was submitted to both the SCSS and to DFO Stock Assessment.

The SCCA recently had four representatives attend the Salish Sea Symposium held in Vancouver (and virtually) January 23-24, 2024. The purpose of the Symposium was for participants to share and learn of the multitude of activities and projects taking place across the Salish Sea. Representatives were able to hear, for example, about the legislated efforts taking place federally, state-wide and with Tribal Nations to restore and protect salmonids, forage fish and habitat in Puget Sound. On the Canadian side, participants learned, for example, of the efforts being made by First Nations via the First Nations Fisheries Council and Transportation Canada to evaluate the cumulative impacts of marine shipping on their specific marine values and to develop mitigation and management measures. Other presentations

provided details of where data from various citizen-science, academic, government and traditional knowledge projects and initiatives was housed and could be accessed. In an effort to conserve Pacific salmon stocks in the face of climate change and increased marine shipping in the Salish Sea, this Symposium was extremely useful. The SCCA looks forward to the development of the Salish Sea Initiative and the Pacific Salmon Strategic Initiative's involvement with it.

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 late fall and winter months. One site is in Sechelt Inlet, one outside facing the Salish Sea on shishálh Nation lands in Sechelt, and the third site is in Gibsons, close to the harbour. We had just one positive over this time frame, from our latest sampling in January at the Sechelt Inlet site. This provided ONE egg, of unknown species, but a positive nonetheless! 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

Sunshine Coast Eelgrass Mapping (Moonstone Enterprises) -

Eelgrass mapping that was done off Roberts Creek in the Salish Sea was completed last summer, and is waiting on completion of mapping the data collected before a report can be completed. This will hopefully occur before summer. An application is in process 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. It will be interesting to see what condition the beds are in now.

- Dianne Sanford, Moonstone Enterprises

Submitted by A. Kroning

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