

Roundtable Report

November 6, 7, 8 2023

POCO/Mission Creek

SEHAB Member: Janet Lemon

(Alternate Bart Proctor to present report)

North coast Area

Community Advisor: Rob Dams

Key Issues:

1. Many of the streams in the North Coast area are not being assessed as there are fewer paid DFO streamwalkers and less volunteers doing and submitting information.
2. Climate change is on the front burner as floods, droughts and extreme low and high temperatures have caused many issues for the salmon streams and for all the facilities in our area. Volunteers and groups have no extra money to implement climate change preparedness.
3. More and more commercial sport fishing businesses are operating in our local waters while there is less and less commercial fisheries which are highly recorded and which sustains many small coastal communities. We cannot manage stocks if the catches of non-commercial fishers are not tracked and recorded accurately.

Some highlights of the various groups on the North Coast

- *Kispiox Area*: New hatchery is to be built at Gitwanow as the Kitwanga group begin to enhance their sockeye run. Gitwanow upped the sockeye enhancement target to 50 K from 30 last year. A total of 52 K eggs were flown to Bella Coola in the past few weeks.
- *Hartley Bay Hatchery*: The group have a new stream bottom intake and a new streamside intake through BC Salmon Restoration And Innovative funding. They were hoping to have things ready for this fall but the hatchery itself needs some re-plumbing. North West Hydraulics is doing the work.

- Oldfield Creek Hatchery: The Society has undergone a stressful time after the rock slide November 2021. The group now has McElhanney engineering Firm doing the planning for a rebuild in Port Edward. Lots of challenges around water licenses, land tenure and funding, however the group is enthusiastic and are doing monthly water samples and have done all the schools incubation boxes with eggs, including a Stream to Sea program in Lax Kw'alaams (Port Simpson) for the first time. They have kept the old facility on Wantage Rod in Prince Rupert for a Stewardship Education Center which will involve other groups including Coast Mountain College, Ecology Center Society, surrounding Indigenous communities, local schools and tourists. The goal is to work in partnerships with all group interested in salmon and rebuilding stocks or doing habitat work. They have good Community support and several partners.
- The Lakelse Watershed Society: This group are keeping active and have a potential at the Lakelse hot springs regarding geo thermal. They are asking for Lakelse to be designated as a sensitive water area. They continue doing the underwater video camera project, and are setting base line data on air and water quality.
- Oona River Resources Asociation (ORRA) has operated a public Involvement Program since 1980 and have done valuable restoration and enhancement work in and around their community (which is 40 Kilometers south of Prince Rupert, on Porcher Island) Last winter they lost all their 22,000 eyed eggs when the intake pipe failed from the severe cold temperatures. Repairs to the intake fitting and a back-up water supply and a check valve were installed and the brood stock is being collected in the last week. There were excellent coho returns and about 1500 pinks returned for the first time in the last 6 years. The last 23 years this group has been hosting a college field trip with Coast Mountain College. This year they had 2 groups for a total of 47 students over a 10 day period. Based in the heart of a temperate rainforest ORRA offers a hands- on learning experience about salmon, their habitat and the surrounding eco-systems, as well as the ancient indigenous fishing weirs and climate change issues.
- The Stock Assessment Division (STAD) are trying to make the Zymachord coho a lower skeena indicator stock. They hired a contractor to mark and recapture them this fall. ~1500 fish were marked with an early estimate of 10 K coho as the return. The are

still coded wire tagging 20 K smolts from the Eby St hatchery to enable this to provide more science around Lower Skeena coho. Egg takes are ongoing at this time.

- *Deep Creek* was able to reach the 300K chinook egg target this fall. Despite ongoing poor chinook escapements.
- Reports on the Skeena indicate coho returns showed a large increase from the past 7 years and there were record pink returns this year. Sockeye returns were quite good but not as good as last summer returns. Water temperatures in the upper Skeena were a huge concern as well. Chinook, chum returns were poor and this was the third worst steelhead return in 65 years of data.

Round table Report
November 2023 SEHAB meeting
Leandre Vigneault, Haida Gwaii
CA: Erin Harris/Patrick Arkesteyn-Vogler

Summary

We have very good CA support on Haida Gwaii and DFO is to be commended on finding creative solutions for our area Erin Harris has been re-hired in a part time basis and supported by Patrick Arkesteyn-Vogler doing the job remotely and we understand that Quinn Barabash has recently been hired on part time as well. Our thanks to DFO for finding creative solutions to keep providing CA support to our groups and what looks like a great model for mentoring and building CA capacity on the North Coast.

As with all areas of the coast weather has been unusual with very dry conditions in the start of the salmon migration time but water levels have been more normal in the later fall than they were last year.

Chum returns continue to be very low throughout Haida Gwaii. Returns of the other salmon species were reasonable to good.

Groups are still struggling to understand the changes brought in through PSSI.

- They understand that the initiative comes with more money and have seen some the new hires but also understand that CA budgets have gone down. Some groups contribution agreements are going up but due to the limited duration of the PSSI funding commitment realize that the additional funds cant be counted on for the long term.
- They understand that the NC RRU staff have moved out of SEP and that perhaps more people are being hired to fill their old roles within SEP but are not sure who to contact with the questions they would have previously directed to RRU staff.

Group reports

The Hecate Strait Streamkeepers – operated a smolt counting on Crabapple Creek this spring and good success at getting brood stock this fall - primarily coho. They report good volunteer turn out despite how small our communities are.

The Tlell Watershed Society continues to operate the Tlell River Fish fence with a combination of volunteers, one paid staff member and support from Haida Fisheries and DFO staff. They are thankful for the continued StAD funding to support the Tlell Fence.

The Old Masset Village Council is completing some upgrades to their staff living quarters at their CEDP site at Marie Lake using BC SRIF funds.

DFO StAD has been funding DNA collections to build a detailed for coho DNA database for Haida Gwaii over the past few years with most of the collections expected to be complete by next fall.

Low water events this spring prompted the many Skidegate community members to organize a fry salvage in a small stream in the community and this has prompted interest in improving habitat conditions in streams in the community.

SEHAB November 2023: Sunshine Coast Roundtable Report

Community Advisor: Jim Wilson

Rep: Angela Kroning
Alternate: Dianne Sanford

The major challenge this past summer of 2023 was once again the extended period of no to little rains for the Sunshine Coast resulting in very lows to the creeks in our region. Stewardship groups and the hatchery were all happy to see the drought end following the rains in late September. There is now a clear understanding that any restoration or conservation of salmon and salmon habitat will have to have climate resiliency built into the efforts. DFO recognizes this and has provided funds and expertise to, for example replace the fish ladder at Colvin Lake, located in Sargeant Bay Provincial Park with a model that can function with lower stream flows. At the Chapman Creek hatchery, DFO provided a grant to purchase a backup generator that will be used during a power failure for the well water supply increasingly being used during drought conditions for rearing and incubating.

In response to public concerns about “stranded” fish in low creek waters during the summer, our CA provided a statement and contact information to the local newspaper as well as Fry Salvage Guidelines and Statement to the Sunshine Streamkeepers Society. There was ongoing monitoring of salmon habitat both fresh and marine (eelgrass meadows) to see how the environment and fish were/are responding to the weather conditions. One surprise was the significant Pink returns to creeks that still had decent water flows such as Chapman, Roberts, Dakota and McNair Creeks and the stray male sockeye that was present in Roberts Creek.

There continues to be strong interest in wild salmon and we are seeing increasingly groups working together, and as can read below, reaching out to others in the community to form partnerships that help support and conserve salmon, their habitat and their prey especially in the face of a changing climate.

Having a local CA, knowledgeable and approachable continues to be much appreciated by everyone.

Sargeant Bay Society -

Fall is always a busy time for our group of volunteers. Late October we have seen the first few Coho enter the Colvin Creek system. Colvin Creek is always later than many other creeks for both Coho and Chum as it does need high tides and large rain events for the fish ladder to be passable.

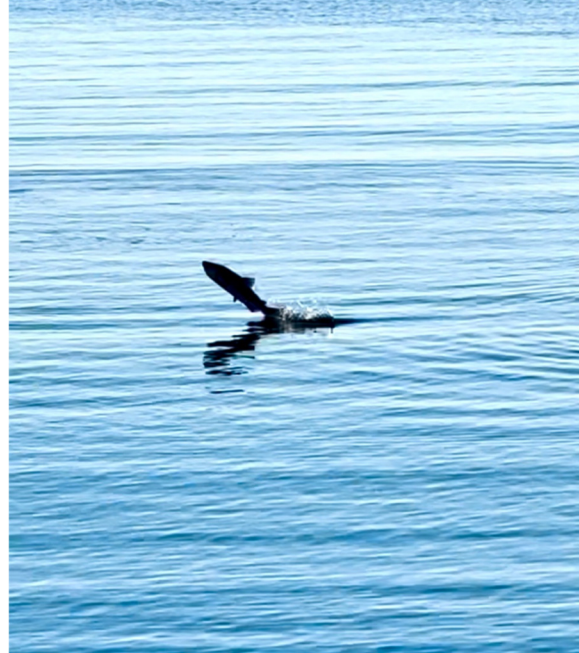
Our group really appreciates the effort and voice that the SEHAB has given our small group of streamkeepers. As some may recall we had a stalled project with BC Parks having some trouble funding the replacement of a 30 year old, damaged fish ladder located in Sargeant Bay Provincial Park. This ladder allows Coho and Chum to enter Colvin Lake and Creek. So it was great news in March this year, after the previous SEHAB meeting, that DFO had heard about the concerns through our SEHAB report and recognized the urgent need to replace the ladder. DFO agreement to help fund a big portion of the ladder replacement has provided a firmer timeline on the replacement.

Since then we have had some good online meetings with a BC Parks Senior Park Ranger, DFO Restoration, Sargeant Bay Society and Jim Wilson our DFO Community Advisor. A timeline has now been established and we have seen draft drawings of the new ladder that will be built off-site this winter. The new design should allow fish to pass through the ladder at lower tides and with less water flow. Permits, archaeological assessments and other avenues of funding for required machine

work, are all confirmed or in the works. The plan now is to have the ladder installed during the dry season in late July or early August 2024.

Coho photographed in Sargeant Bay

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



Chapman Creek Hatchery -

- Coho, 2022 brood juveniles – 22,298 fry are rearing at the hatchery, these fish were just recently adipose fin clipped Oct. 27 - 28 with the help of 20 plus volunteers and CA Jim Wilson on both days.
- Pink adults – 232 spawned, approximately 148,000 eggs taken. Total fish trapped 313 adults. 114 of these were females.
- Chapman Cr. 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 of this year's drought.
- Coho adults- holding 61 fish in our tanks, these will be checked this week for sex and ripeness. The first egg take will most likely commence at this time. Total fish trapped 176 adults and 5 jacks. Of these, only 6 have been no marks, a very high hatchery Coho return percentage rate so far for us.
- Chum adults- the 1st adult of the season was seen on Oct.15 in Chapman Cr, a male, he was caught, photographed and released. There are reports of others being seen by fishermen on Chapman but nothing official as of yet.
- Chinook – Nov.10th we will be receiving 70,000 eyed eggs from the Chilliwack Hatchery.
- Repairs to our water main supplying creek water to the hatchery commenced the week of July 17th. The worst of the leaks, in the parking area was done first, a second leak was repaired after that, both requiring an excavator. Along with this project, the installation of a stop-log frame on our intake pond inflow culvert to control creek water supply to the hatchery was also successful. We will be continuing the plumbing repairs project by addressing 2 other known leaks later this winter, after the spawning season is over.
- New well water plumbing will be installed this winter for 2 of our smaller rearing tanks, currently they are creek water only plumbed.
- With funding from a DFO grant, the hatchery is purchasing a backup generator and equipment to automatically transfer power supply. This will keep the hatchery powered up during any future power failures, which in turn will insure the steady flow of groundwater, through 3 wells, to the hatchery's rearing and incubation containers. This is important moving into the future, as we are now relying on this groundwater supply for rearing and incubation, during certain periods of time, especially during any drought conditions like we have seen here. For example, this past summer, the hatchery was operating without creek water for approximately 4 weeks. Some of this timeframe was due to the pipe repair project and our doing. For the other timeframe it was Mother Nature's doing with the drought. The low flows in Chapman creek did not allow enough head height at the hatchery intake pond to supply adequate surface water flows to the rearing tanks. The well water was the only reliable source for the juveniles. If we had lost power at any point during this time we

would have had to possibly release some or possibly all 23,000 Coho fry due to lack of available water, worse, this lack of flow could have potentially killed them all before a release could have been done. To stop this from happening in the future, the backup generator will provide a constant, uninterrupted water supply during any future power failure, ensuring the safe keeping of the fish on site.

- Our ongoing well drilling project to supplement the hatchery water supply is still on hold.
- Visitor numbers were up this summer. Hatchery volunteer hours were fairly high and holding steady throughout this reporting period.
- We had a successful July / August with our “Explore the Wild” summer kids day camp for 7 to 11 year olds; this was coordinated by our summer “fish tech” student and 2 counselors to run the day camp itself.
- During the past summer, on 2 occasions, July 26th for provincial Drought Level 4 and Aug 2nd for provincial Drought Level 5, we were asked by the Provincial Water Manager to voluntarily reduce our water consumption at the hatchery, this for both sources, creek (surface water) and well (groundwater). We managed reduced flows through the hatchery on both sources at both times without harm to the rearing Coho. If the drought conditions had continued into later into September or beyond we possibly would have had to start releasing Coho juveniles to maintain safe flow vs. density limits. Also this could have caused us to not be able to take any Pink eggs at all this season. Luckily, this year, the rains came when they did and the 2023 drought ended very abruptly on Sept 25th.

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

Sunshine Coast Streamkeepers Society -

SCSS has a strong working relationship with our DFO Community Advisor, Jim Wilson. Jim has supported our group in a number of ways this season by supplying and lending equipment, assisting with spawning counts, training and giving refresher sessions on conducting an Advanced Habitat Assessment and providing valuable information on fish trapping and fry salvage. Jim is always willing to assist our SCSS volunteers and offer advice to our Board members.

Drought conditions in our creeks on the Sunshine Coast mirror elsewhere in southern BC and are experiencing very low subsurface water flows during the summer months. Jim alerted SCSS (and other salmon supporting agencies) in July, 2023 about the dangerously low water levels that may have stranded fry in small pools in local creeks. He provided us with the DFO Fry Salvage Statement and Guidelines.

The multi-partnered project with the Sunshine Coast Conservation Association and Squamish Nation in which the lowest culvert on Malcolm Creek will be replaced saw the consultant complete and submit habitat assessments this summer. These are now under review.

Climate Change & Salmonid Temperature Loggers Report: We continue to download the data from nine creeks water temperature loggers and air temperature loggers and one of our dedicated volunteers graphs the information. The nine creeks span the distance from Dakota Creek to Chapman Creek. The data from Chapman Creek is shared with the Sunshine Coast Salmonid Enhancement Society (Chapman Creek Hatchery) for their records.

Invasive Plant Removal and Native Plant Monthly Events: The SCSS sponsored the planting of native plants in riparian zones on Roberts, Malcolm and Chapman Creeks in the early spring of 2023. Ivy, blackberry, morning glory, laurel and holly have been removed from these sites. In their place, SCSS volunteers have planted willow, cedars, sword ferns, Oregon grape, salal, salmon berry, snowberry and Nootka rose. After a summer hiatus, an invasive plant removal was conducted on Roberts Creek

in September with 12 volunteers. SCSS worked to maintain the native plants over the dry summer months by organizing volunteers to water regularly. We are truly grateful to the volunteers who have watered as the plants have survived because of it. We are grateful to the Sunshine Coast Regional District and the Pacific Salmon Foundation for their generous support through grants for these projects.

SCSS continues to conduct spawning counts on the following creeks: Dakota, Langdale, Gibson, Ouillet, Chaster, Hutchison, Malcolm and Roberts Creek(s). This work is conducted by approximately 14 volunteers. We are excited that we have attracted some new volunteers for this important undertaking. Recent events include having ZoAnn from Pacific Streamkeepers Federation (PSk) meet with volunteers at Roberts Creek to review the Module 12 protocol and offer additional suggestions. 2023 has been a good year so far for spawning fish in Roberts Creek where it started with an abnormally high count of Pinks due, it was thought, to water flow still present in the creek. It was especially surprising that the volunteers spotted a male Sockeye in Roberts Creek; this has generated attention from PSk and DFO. The spawning counts are submitted to the DFO stock assessment and to PSk.

Nine SCSS volunteers completed water quality assessments (PSk Mod 3) on Chapman, Wilson, Langdale, Chaster, Malcolm and Roberts Creek(s). These are done monthly from April to September each year with the data submitted to the PSk. This year, through a grant from the Pacific Salmon Foundation, we were able to purchase a water quality equipment kit for our volunteers in Sechelt. We are also grateful for the assistance of a new volunteer this year that has taken on the task of submitting the Module 3 data to the PSk website. This alone, is a big job.

An invertebrate survey (PSk Mod 4) was conducted on Chaster Creek by SCSS members this summer. In addition, two Enhanced Habitat Assessments (PSk Mod 2) were conducted: one on Malcolm Creek and one on Roberts Creek. With the support of ZoAnn and Jim, six of our SCSS volunteers completed these assessments which provide valuable information regarding the health of our creeks for supporting spawning salmon.

Juvenile Fish Trapping & Identification (PSk Mod 11) was conducted in the late spring and summer on Roberts, Malcolm and Chaster Creeks. SCSS was careful to protect the young fry from injury and followed both the protocols of the PSk and the advice of our CA.

Streamkeepers were also able to tour and provide advice to a DFO/Restoration hired consultant on Dakota Cr. with respect to physical barriers including lack of passage near the mouth for the ~5,200 returning Pinks.

-Kelly Paddock, Director, SCSS

Friends of Forage Fish Sunshine Coast -

Continuing our ongoing partnership with the Sunshine Coast Conservation Association, summer sampling of two beaches, one in Gibsons, and one in Sechelt Inlet, didn't produce any forage fish eggs. We were focused on Surf smelt, as Pacific sand lance generally spawn in the winter in the Sunshine Coast area.

Nevertheless, our group held a potluck which was attended by 12 volunteers, to celebrate our efforts and to discuss the upcoming winter season. We will be sampling a different beach in the Gibsons area, an outside beach (Trail Bay) in Sechelt, and our core beach in Sechelt Inlet.

-Dianne Sanford, Coordinator

Sunshine Coast Conservation Association-

The SCCA continues to co-lead a multi-partnered fish passage and habitat and restoration pilot project with Skwxw'7mesh Uxwumixw (Squamish Nation), with support from DFO, BC Ministry of Transportation & Infrastructure, 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. Habitat and culvert assessments have now been completed and are awaiting approval. Streamkeeper water quality surveys were conducted on both creeks throughout the summer. Although water flow went subsurface at the mouth in Ch'kw'elhp-Gibson Creek by the end of summer Malcolm Creek showed good flow throughout. Spawner counts are now underway with Ch'kw'elhp-Gibson reporting that no salmon have returned to date.

The SCCA continues to engage First Nations and all levels of government to establish land use designations to prohibit harmful resource extraction and engage in water sustainability planning for Mt. Elphinstone Watersheds from Chaster to Hutchinson Creek. We partnered with the Elphinstone Community Association and local streamkeepers to respond to the Mt Elphinstone South Watershed Assessment Phase 1 and 2 Report, released by BC Timber Sales (BCTS), July 2023. The Report was based on a newly minted Watershed Risk Management Framework, Guidance Document, Revision 1.0. prepared for BC Timber Sales, Chinook & Strait of Georgia Business Area, March 2022. Streamkeeper photos and data showing flooding and significant ravine erosion in Chaster Cr. were forwarded to the BCTS consultants following the release of the draft assessment document. It is believed that this information led to improved recommendations in the final Report with respect to reducing the risk to downstream values including salmon and their habitat in the face of climate change and future logging in the watersheds assessed.

The SCCA is has initiated a Fisheries Sensitive Watersheds (FSW) program with the goal of designating three salmon watersheds as FSW's within the next five years. The provincial FSW designation establishes legal requirements to conserve natural hydrological conditions and channel integrity as well as quality, quantity, and timing of water flow in the watershed. The designation is intended to prevent cumulative effects of industrial activity that would have adverse effects on fish habitat. By working with local governments, indigenous groups, and stakeholders, the FSW designation will allow significant fisheries values to be restored and sustained. Our first step is to undertake legal research to review the relevant legal landscape on the Sunshine Coast, including agreements/constructive arrangements in place for First Nations of the Sunshine Coast; as well as FSW designations, including what is needed for designation, what are the benefits/drawbacks of designation, to ensure a designation would accomplish our salmon conservation and restoration goals. Legal research will help determine next steps for achieving designations for three priority watersheds. We have selected McNab Creek (900-106300), a 5th order stream located in the northwest side of Howe Sound as our pilot project. Data, from 2014-2018, at one day per year, from concerned citizen scientists documented 14,000 returning spawning salmon. Salmon species documented in the area were Chinook, Pink, Chum, and Coho Salmon, all using the spawning and main river channel.

The SCCA continues to partner with Friends of Forage Fish & Dianne Sanford to deliver forage fish egg sampling and eelgrass mapping projects.

-Suzanne Senger, Executive Director, Sunshine Coast Conservation Association

Eelgrass Mapping Sunshine Coast Regional District Area D - Roberts Creek

Mapping eelgrass beds off the shorelines of Roberts Creek has been completed and maps of the eelgrass bed areas are being created in collaboration with the Sunshine Coast Regional District mapping department. Of main interest will be a comparison of the new eelgrass polygons with mapping that was done in 2008 to see the changes that have occurred.

-Dianne Sanford, Consultant

Rotary Herring Enhancement Program -

The Rotary clubs on the Sunshine Coast have been dropping 'curtains' off docks for 10 years to assist the herring spawn to hatch and continue to feed the salmon in these waters. Acting as artificial nurseries for the herring roe, our curtains temporarily replace eelgrass and kelp beds which have been basically decimated by climate change, until such time as restoration of natural kelp and eelgrass takes place. We have worked with LeeAnn Ennis through her company Vital Kelp, assisting in the laboratory where baby kelp are being raised, and later transferred to the ocean where each is attached to underground rope to adjust and grow. It is hoped that these mature kelp plants can be successfully transplanted to appropriate locations to restore the natural spawning areas for forage fish and other marine life.

Although Rotary's Herring Enhancement Program is essentially a seasonal project, in the off season we busy ourselves with cleaning the last year curtains, and explore ways to build ones with natural materials, so we are reducing the chance of more micro plastics being added to ocean water. To this end we are replacing the perforated PVC piping, which supports most of the curtains, with driftwood branches instead. Leadcore, which weights the curtains in the water to keep the curtains hanging vertically, is being replaced by hanging beach rocks. Furthermore, to begin to address the removal of micro plastics from polluted waters around marinas, we have purchased a pump filter machine called a "Seabin" to experiment with ways that oil, styrofoam bits and other micro plastics can be successfully removed from the ocean water, as we aim to have a higher spawn around marinas, where we hang most of our curtains.

In June, in conjunction with World Oceans Day and the Sunshine Coast Conservation Association, we presented an active workshop at Davis Bay, helping participants to build a number of herring curtains and show them how important they are to help herring roe survive. We shared a video and gave out pamphlets to educate and encourage their participation in the Herring Enhancement Program and as well to ask that seaweed not to be removed from beaches during spawn season, and to refrain from walking on seaweed during this time, so that maximum number of roe may hatch out and make their way to sea.

Having worked hard over the past decade to help bring back the herring numbers, we are very clear about our position on the overfishing of roe in the Salish Sea. DFO science shows that the roe fishery is not currently sustainable; therefore the way forward is crystal clear to us. We support a [Roe Fishery Moratorium](#) until the herring populations are strong enough to create a sustainable fishery.

-Margie Garrard and Mike Price, Rotary Herring Enhancement Program

Streamkeeper Trainers –

After 23 years of offering 33 sessions of streamkeepers training and events on the lower and upper Sunshine Coast to high school students, teachers, local government staff, politicians and citizens interested in wild salmon, Dianne and Angela have decided to retire from their teaching roles. They remain committed to keeping their waders on and supporting their local community in the conservation and recovery of salmon and their habitat. People wishing to become streamkeepers or upgrade their skills can contact the Pacific Streamkeepers Federation (pskf.ca) to arrange for training.

-Angela Kroning & Dianne Sanford

SEHAB update Kevin Ryan Nov. 2023

North Shore, Port Moody and Maple Ridge

DFO CA Brian Smith (Port Moody, Maple Ridge)

DFO CA Gillian Steele (North Shore)

North Shore (CA Gillian Steele)

Seymour Hatchery

Seymour Hatchery tried seine in lower Seymour to catch chum with no success, due to low returns.

1. Any issues that are affecting groups and their projects that are directly related to DFO.

Low water, poor chum returns- but DFO has allowed, and helped us with egg takes from the Allouette system DFO has secured **300,000 chum eggs from Alouette**

2. Any positive things that are directly related to DFO.

We have a new CA (Gillian Steele). She is well known in the community, and is immersing herself into her new position in a very positive, breathe of fresh air manner. We can count on her for information from DFO, and she is always there attending meetings, and lending a helping hand
DFO and MV are building more off channel spawning and rearing area in the Junior Creek complex on the Seymour The DFO Engineering group is keen, and there when we need them

3. Any things coming up that DFO should know about

We have our Engineering team looking at the canyon where the rockslide occurred, to determine if the lip of the rockslide can be removed to allow salmon passage during the low water situations that we have been experiencing during the early spawning returns.

4. Any issues that are affecting groups and their projects that are related to other agencies.

We are working very well with the senior level of government, and the Metro Van team, however we never hear from or see the Provincial government

5. A general update of how what has been happening with your society that you would like to share.

We are presently working with our Engineering team to build a long term plan for the estuary

North Shore Streamkeepers - Restoration work

1. Lynn Creek – Side Channel restoration completed – August 2023 (led by Keegan Cassidy)
 - a. Northwest Hydraulic Consultants design
 - b. Main Apex structure + 6 smaller Engineered Log Jams
 - c. 120 logs from Chilliwack and 98 boulders N. Van all donated
 - d. Prof. Dave Harper and students from BCIT did all cabling attaching logs to boulders
 - e. Total cost \$262,000

Planned projects:

Lynn Creek – Arborlynn Creek Wetland – TBA 2024/2025

- a. Not yet designed
 - b. Reroute Arborlynn Creek to run south down escarpment into existing wetland area
 - c. Adding approx. 300M of creek length
 - d. Expand wetland, create rearing pools and spawning channels
 - e. Arborlynn Creek to then connect with top end of 2018 Lynn Ephemeral Channel project
 - f. \$80,000 funding available from District of North Van for Hunter Bridge offset
 - g. BCIT Civil Engineer students already visited site with Glen Parker
 - h. NSSK to hire consultant for design and begin grant writing
2. Mosquito Phase 2 Design – August 2024
 - a. Continuation upstream from Phase 1 – 2020
 - b. 150M of stream, 120 logs and 240 boulders
 - c. 23 Engineered Log Jams
 - d. \$439,250 budget
 - e. 50% funded at present, **actively seeking additional funding**

Morten Creek

Facility painted. Annual target 30,000 chum

Port Moody (CA Brian Smith)

Noons Creek

Community Events:

Open house every Saturday

Noons struggled with very low water levels - Cypress dam opened in August
Healthy return of hatchery coho spawners.

Mossom Creek hatchery

Community Events:

Open House every Sunday: Average # visitors 30-40

Bio Blitz June 2-3 60 guests, students and scientific experts. Results to be posted on social media and on Mossom web site www.mossomcreek.org. Overall the health of the watershed looks very good.

Production:

Received 50,000 chum eggs from Alouette Hatchery

Received 90,000 pink eyed eggs from Chilliwack

Sunday Nov 5th volunteer walked Mossom spotted 58 coho, 118 chum CA Brian advised will be leading a group into creek this week to secure coho for Mossom. Will raise approx 12,000 coho. If we can't secure from Mossom will get eggs from Noons.

Coho tagging Phase 2

Results of our 2022 tagging pending publishing in scientific journal by Prof Scott Hinch: Majority of Coho remained in the eastern part of Burrard inlet (Port Moody) longer than originally thought. High loss of coho released into Burrard inlet caused by many issues, pollution, predation, bright lights from terminals (Centerm, Vanterm, Lynnterm), 2nd narrow bird nesting. We estimate approx 20% made it to Indian Arm, 2nd Narrows, and 10% reported at Lions Gate and beyond.

We are in working on a plan with DFO community advisor Brian Smith about barging or towing a seapen with Mossom coho smolts to a spot further west in Burrard Inlet to improve to release survival.

We have requested DFO permission for pit tagging 4000 coho smolts, working with Zachary Sherker a UBC PHD student (part of Prof. Scott Hinch's team), to build a radio receiver in Mossom to collect return data.

Maple Ridge (CA Brian Smith)

Alouette River Management Hatchery (ALLCO)(ARMS)

Production: Arrivals late this year. As of Nov 1st early coho over 400, chum on target for 450,000 supplying both Seymour and Mossom. Aprox. 125 Chinook identified so far.

Kanaka Creek (KEEPS) - Bell Irving Hatchery

Community event: Sunday Nov 5th just had public egg take event with over 200 visitors.

Producton: Everything on target. Normal returns of Chum and Coho so far.

Seymour and Mossom chum situation

DFO Stock Assessment / production planning

We were advised that our chum numbers would be significantly reduced based on last year's removal of fishing for chum. Mossom was not prepared to secure eggs from their watershed. Some design work and improvements will be required to allow safe capture of returning salmon without significant damage to wild reeds.

Seymour will require significant work to this river to enable capture of returning chum.

Very low returns up till end of October necessitated both hatcheries getting chum eggs from Alouette (as we previously did).

Suggestion that in future DFO hold off making these decisions and directions till historical data is confirmed over a few years.

General Comment from all hatcheries and streamkeepers:

SEP community hatcheries appreciate increased funding from DFO through PSSI. However the concern this money is short term till PSSI runs out and what then?

Kevin Ryan
Nov 2023

SEHAB update Kevin Ryan Nov. 2023

North Shore, Port Moody and Maple Ridge

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Low water, poor chum returns- but DFO has allowed, and helped us with egg takes from the Allouette system DFO has secured **300,000 chum eggs from Alouette**

2. Any positive things that are directly related to DFO.

We have a new CA (Gillian Steele). She is well known in the community, and is immersing herself into her new position in a very positive, breathe of fresh air manner. We can count on her for information from DFO, and she is always there attending meetings, and lending a helping hand
DFO and MV are building more off channel spawning and rearing area in the Junior Creek complex on the Seymour The DFO Engineering group is keen, and there when we need them

3. Any things coming up that DFO should know about

We have our Engineering team looking at the canyon where the rockslide occurred, to determine if the lip of the rockslide can be removed to allow salmon passage during the low water situations that we have been experiencing during the early spawning returns.

4. Any issues that are affecting groups and their projects that are related to other agencies.

We are working very well with the senior level of government, and the Metro Van team, however we never hear from or see the Provincial government

5. A general update of how what has been happening with your society that you would like to share.

We are presently working with our Engineering team to build a long term plan for the estuary

North Shore Streamkeepers

1. Lynn Creek – Side Channel completed – August 2023

- a. Northwest Hydraulic Consultants design
- b. Main Apex structure + 6 smaller Engineered Log Jams
- c. 120 logs from Chilliwack and 98 boulders N. Van all donated
- d. Prof. Dave Harper and students from BCIT did all cabling attaching logs to boulders
- e. Total cost \$262,000

Planned projects:

Lynn Creek – Arborlynn Creek Wetland – TBA 2024/2025

- a. Not yet designed
- b. Reroute Arborlynn Creek to run south down escarpment into existing wetland area
- c. Adding approx. 300M of creek length
- d. Expand wetland, create rearing pools and spawning channels
- e. Arborlynn Creek to then connect with top end of 2018 Lynn Ephemeral Channel project
- f. \$80,000 funding available from District of North Van for Hunter Bridge offset
- g. BCIT Civil Engineer students already visited site with Glen Parker
- h. NSSK to hire consultant for design and begin grant writing

2. Mosquito Phase 2 Design – August 2024

- a. Continuation upstream from Phase 1 – 2020
- b. 150M of stream, 120 logs and 240 boulders
- c. 23 Engineered Log Jams
- d. \$439,250 budget
- e. 50% funded at present, **actively seeking additional funding**

Morten Creek

Facility painted. Annual target 30,000 chum

Port Moody (CA Brian Smith)

Noons Creek

Community Events:

Open house every Saturday

Noons struggled with very low water levels - Cypress dam opened in August
Healthy return of hatchery coho spawners.

Mossom Creek hatchery

Community Events:

Open House every Sunday: Average # visitors 30-40

Bio Blitz June 2-3 60 guests, students and scientific experts. Results to be posted on social media and on Mossom web site www.mossomcreek.org. Overall the health of the watershed looks very good.

Production:

Received 50,000 chum eggs from Alouette Hatchery

Received 90,000 pink eyed eggs from Chilliwack

Sunday Nov 5th volunteer walked Mossom spotted 58 coho, 118 chum CA Brian advised will be leading a group into creek this week to secure coho for Mossom. Will raise approx 12,000 coho. If we can't secure from Mossom will get eggs from Noons.

Coho tagging Phase 2

Final Results of our tagging pending publishing in scientific journal by Prof Scott Hinch: Majority of Coho remained in the eastern part of Burrard inlet (Port Moody) longer than originally thought. High loss of coho released into Burrard inlet caused by many issues, pollution, predation, bright lights from terminals (Centerm, Vanterm, Lynnterm), 2nd narrow bird nesting. We estimate approx 20% made it to Indian Arm, 2nd Narrows, and 10% reported at Lions Gate and beyond.

We are in working on a plan with DFO community advisor Brian Smith about barging or towing a seapen with Mossom coho smolts to a spot further west in Burrard Inlet to improve to release survival.

We have requested DFO permission for pit tagging 4000 coho smolts, working with Zachary Sherker a UBC PHD student (part of Prof. Scott Hinch's team), to build a radio receiver in Mossom to collect return data.

Maple Ridge

Alouette River Management Hatchery (ALLCO)(ARMS)

Arrivals late this year. As of Nov 1st early coho over 400, chum on target for 450,000 supplying both Seymour and Mossom. Aprox. 125 Chinook identified so far.

Kanaka Creek (KEEPS) - Bell Irving Hatchery

Community event: Sunday Nov 5th just had public egg take event with over 200 visitors.

Producton: Everything on target. Normal returns of Chum and Coho so far.

Seymour and Mossom chum situation

DFO Stock Assessment / production planning

We were advised that our chum numbers would be significantly reduced based on last year's chum fisheries closure. Mossom was not prepared to secure eggs from their watershed. A good deal of work and improvements will be required to allow safe capture of returning salmon without significant damage to wild reeds. Seymour will require significant work to this river to enable capture of returning chum.

Very low returns up till end of October necessitated both hatcheries getting chum eggs from Alouette (as we previously did).

Suggestion that in future DFO hold off making these decisions and directions till historical data is confirmed over a few years.

General Comment from all hatcheries and streamkeepers:

SEP community hatcheries appreciate increased funding from DFO through PSSI. However the concern this money is short term till PSSI runs out and what then?

Kevin Ryan
Nov 2023

TERMS OF REFERENCE

Purpose

- The British Columbia Salmon Enhancement and Habitat Advisory Board (SEHAB) is a volunteer board that represents the concerns of the Salmonid Enhancement Program (SEP) volunteer stewardship community in British Columbia (B.C.) to the Department of Fisheries and Oceans Canada (DFO).
- Geographical representation is based on having a member from each Community Advisors' (CA) area.
- SEHAB advises governments on the following:
 1. Strategies to manage and enhance salmon populations focusing on conservation.
 2. Policies for comprehensive and effective salmon habitat protection and restoration.
 3. Advocating for the financial resources needed to achieve policy development.
 4. Fostering education and improving public understanding of the important environmental, social, and economic benefits of B.C.'s salmon resource.

Membership

Guidelines for Board Membership

A Board Member:

- Demonstrates an interest in Pacific salmon and salmon habitat: enhancement, conservation, protection, and restoration.
- Brings to the board a background of personal and professional knowledge and experience related to salmon and salmon habitat.
- Devotes sufficient time and attention to the Board to carry out the responsibilities of their appointment.
- Demonstrates respect and understanding for other viewpoints and interests.
- Contributes to an inclusive, transparent, consensus-based decision-making process.

Members

- Each member will have an alternate appointed by the nominating body.
- Both voting and non-voting members will provide input into making agendas

A. Voting Members shall include:

- a) One volunteer representative from each Community Advisors' area.
- b) One alternate representative from each area who attends meetings when the representative is not available.
- c) One representative from each of two province-wide organizations (Pacific Salmon Foundation and Pacific Streamkeepers Federation)
- d) One alternate representative from each of two province-wide organizations (Pacific Salmon Foundation and Pacific Streamkeepers Federation).

B. Non-voting members shall include representation from

- (a) Government of Canada, Fisheries and Oceans (Pacific Region), representing Branches with specific fishery and habitat responsibilities.
- (b) A representative from Province of British Columbia, representing the Ministry with fishery and habitat responsibilities.

C. Appointment Process of voting members

1) **Appointments from the volunteer community:**

- The Community Advisor (CA) shall be the nominating body for his/her SEHAB member.
- The standing member, in consultation with his/her respective CA, shall be the nominating body for alternates.

The Community Advisor will submit a letter of referral to the membership committee outlining their reason for nominating a volunteer for either a representative or alternate board role.

The nominated volunteer shall submit the following information to the Board's membership committee.

- i) A resume outlining the candidate's experience and volunteer activities, and;
- ii) A statement indicating the candidate's interest in Pacific salmon, support for the aquatic stewardship community and

the DFO Community Advisor role.

2) *Appointments from within two Province-wide organizations:*

- A representative must be a member of a Province-Wide Organization
- The CEO, or Chair, of the province-wide organization will submit a letter of referral to the membership committee outlining their reason for nominating a volunteer for either a representative or alternate board role.

Upon approval from the board, the chairperson will forward the name in writing to Fisheries and Oceans Canada, Director, Oceans Habitat and Enhancement Branch for official appointment.

D. *Terms of Office*

- (a) All voting members are to be appointed for an initial three-year term, with allowance for reappointment after review from their nominating body and Membership Committee
- (b) In the event of a member leaving during the term of their appointment, the designated alternate will serve out the balance of the term, unless the nominating body advises to the contrary.
- (c) The Membership Committee shall write a notice to the nominating body before a member's term expires.

Executive

1. Executive Committee

The SEHAB executive committee will consist of five voting Board members: chairperson, vice-chairperson, treasurer, secretary, and one past executive.

The Executive will:

- (a) Establish agendas and background materials before each general meeting, in collaboration with relevant staff from DFO, agencies, and SEHAB members.
- (b) Attend matters arising between meetings.
- (c) Notify Fisheries and Oceans Canada of changes to the Executive or Board membership.

2. Election to Executive

- (a) Voting Board members in good standing may stand for executive positions.
- (b) Voting members shall elect Executive members by closed ballot at the annual general meeting.
- (c) A member is elected to the executive when the nominee receives a minimum of 51% of the total possible votes at the annual general meeting.

Executive Positions — Roles and Responsibilities / Terms of Office

- Members of the Executive serve for a two-year term and may stand for election for a second term. The past chair will remain on the executive for a further two-year term to ensure Board continuity and stability.

(a) Chair (Nominated by the Membership, elected by the Board)

The Chair

- Has no special authority beyond that of any other Board member.
- Presides over meetings of the Board.
- Facilitates Board meetings to ensure that they begin and end on time.
- Serves as Chair of the Executive Committee and serves on other committees as needed.
- Ensures that all members have an opportunity to participate, and that all sides are heard.
- Keeps an overview of the Board calendar to ensure duties are completed on time.
- Appoints Board members and others to committees (with Board consent) and receives their reports.
- Learns the skills, strengths, and interests of Board members, and appoints tasks appropriately.
- Ensures that committees have clearly assigned mandates, are accountable, and complete tasks on time.
- Fosters a spirit of teamwork and cooperation among Board members, and
- Maintains an impartial position when conflicts arise.
- Assists secretary in developing draft agenda.

(b) Vice-Chair

- Has no special authority beyond that of any other Board member
- Presides at Board meetings in the absence of the Chair.
- Serves on the Executive Committee and other committees as needed.
- Assists secretary in developing draft agenda.

(c) Secretary

- Has no special authority beyond that of any other Board member
- Maintains the official Board records.
- Initiates the agenda-building process
- Records minutes at all meeting
- Ensures the distribution of notices of all meetings, agendas, plus preparation and distribution of minutes of general meetings.
- Ensures preparation and distribution of draft minutes of general minutes within four weeks of general meetings
- Ensures the distribution of Minutes of General Meetings and Roundtables presentations to the Webmaster within four weeks of meetings.
- Ensures the accuracy, safekeeping, and timely distribution of the minutes per the Board's criteria.
- Maintains a library and archives of agendas, minutes, presentations, membership, and other relevant documents.
- Informs membership of all Board meetings, social events, and training opportunities.

(d) Treasurer

- Has no special authority beyond that of any other Board member
- Maintains financial records.
- Provides accurate and timely financial reports, including an annual budget and interprets these reports.
- Chairs the finance committee.
- Works with Chair on an annual workplan to present to DFO.

- Assists the secretary in developing draft agenda.

(e) Past Executive Member

- Has no special authority beyond that of any other Board member
- Provides guidance and advice to the new executive.
- Chairs the Membership Committee.

3. Meetings

- Board meetings will be held three times per year; one will be an annual general meeting.
- Two of three board meetings will take place in Lower Mainland British Columbia with one meeting held in another part of the province.

Content of meetings

- Each voting board member will present a report (Roundtable) from the area they represent. Roundtable reports will be distilled into key issues and topics by members to present to senior management at DFO Pacific RHQ.
- Board committee reports will be presented by committee members at each general meeting.
- Guest speakers who speak about relevant topics that are brought forward by both voting and non-voting members.

Quorum:

- A simple majority of the members of the board constitutes a quorum.
- Decision Making process is by consensus.

Minutes and Roundtables

- The board secretary, or delegate, records the minutes of each meeting.
- The Secretary shall facilitate a process that concludes with distributing official minutes of general meetings to Board members, designated representatives of Fisheries and Oceans Canada, Community Advisors, and the SEHAB website.
- Approved Board meeting minutes and representatives' Roundtables are posted on the SEHAB website at sehab.org

Reporting/Relationship.

- SEHAB reports to the Minister, and senior DFO staff at Pacific Regional Headquarters.
- DFO will respond to SEHAB recommendations in a timely manner, explaining how recommendations were incorporated into DFO policy and/or actions.
- If SEHAB recommendations are not adopted, or followed, DFO will provide feedback of why the recommendations were not deemed useful or possible to implement.
- DFO will ensure that senior managers and other staff that are linked to these processes are kept informed of relevant SEHAB recommendations.

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