

**Round table Report**  
**November 2023 SEHAB meeting**  
**SEHAB Rep: Stephanie Cottell Area: Lower Vancouver Island**  
**CA: Heather Wright**

**Summary**

1. Any issues that are affecting groups and their projects that are directly related to DFO
  - Community groups are really missing the in-person 'Stream to Sea' events. They were a very effective way of connecting with teachers/school staff.
  - It would be helpful for DFO to work with first responders and the river recreational community to establish clear protocols as to hazard mitigation
  - Abrupt Shellfish application in Rock Fish Marine Conservation area (Penelakut/Thetis/Chemainus)
  - Ongoing concern about the fish kill below Skutz Bridge (Cowichan River) July 13, 2023. Analysis indicated the source of the fish kill was not point source pollution, rather it was environmental conditions. They found lesions that indicated stressful conditions. Two fish were attacked by bacteria. The low waters and temperatures have created the stressful conditions. Also found were increased concentrations of nitrates and phosphates that have promoted algae. When algae decomposes, it sucks oxygen out of the water, which creates a lack of dissolved oxygen. Even large trout had died in the river.
  - low water flow/catch and release fish easy prey for Habituated seals, appeal to close to all fishing within first 1500 yards of the estuary in Sooke
  
2. Any positive things that are directly related to DFO
  - Community Advisor supplying Friends of Bowker Creek with a statement confirming that the creek is protected as fish habitat under the Fisheries Act has been helpful.
  - Community Advisor helping with local education initiatives/events in the Cowichan area much appreciated
  
3. Any things coming up that DFO should know about
  - Cowichan Weir upgrade hopefully under way soon
  - Cowichan Estuary Restoration initiative
  - Salmon in the Forest Learning walks at the Cowichan River Hatchery and Ken's Native plant nursery (Collaboration with CCLT, Genevieve Singleton, Ken Elliot, Community Advisor Heather Wright, funding from BC Parks 'Heritage River' initiatives)
  
4. Any issues that are affecting groups and their projects that are related to other agencies.
  - ongoing lack of jurisdictional clarity around riparian areas/development/logging/weir
  - concern about emergency response to high impact events being directed to community groups

- Abrupt Shellfish application for rezoning in Marine Conservation area (Islands Trust)

## **Group reports**

### **Friends of Bowker Creek Society**

**Egg incubation:** Goldstream Hatchery volunteers brought 28,000 Chum eggs to Bowker Creek in January, 2023, which we placed in three incubation boxes in gravel in the creek. We observed emerged fry over a 7-day period in April. Examining the boxes in May, we found much silt and many dead eggs in two of the three boxes. Unfortunately, our method of estimating egg mortality became confused. We can only say that a significant number of fry migrated downstream, but that mortality in two of the boxes was at an unacceptable level. As a result, we are making the following changes this year:

We will do a 6-week trial of types and placement of incubators this fall and winter, to assess their performance before receiving eggs in January, 2024. The trial will identify the best performing boxes and placements, so that we may be confident of significant improvement in egg survival. Peninsula Streams and Shorelines Society continues to advise and support us in egg incubation work. We will also seek advice through Goldstream Hatchery and DFO.

We will clarify our methods of estimating egg mortality before receiving eggs in January, in order to avoid this year's confusion.

We will be prepared to receive 30,000 eggs as of January 2024, and request that we may continue to be supported by DFO with eggs from Goldstream hatchery.

**Adult returns:** Our first egg incubation was in the winter 2021-2022. We hope for the return of adult Chum to be creek to begin Fall 2024.

**Bowker Creek as fish habitat:** We appreciate help we received this year from our Community Advisor in supplying Friends of Bowker Creek with a statement confirming that the creek is protected as fish habitat under the Fisheries Act. The information helps us in obtaining action in pollution issues we see along the creek. A municipality, for example, has corrected a continual problem with muddy water pouring into the stream from a Public Works yard. Also, the school district has made efforts to contain materials from defective artificial turf to prevent them from entering the creek.

### **On-Water River-Recreationists (including Whitewater Paddlesport Community)**

**Any issues that are affecting groups and their projects that are directly related to DFO**  
The Cowichan River contains an over-abundance of woody debris. It's well established that woody debris is an important feature for salmon habitat. It is also a significant

*hazard to recreational navigability. Currently-established hazard-mitigation practices include*

- signage warning of hazards,*
- portage trails (where shoreline access is possible, and subject to 'private property' restrictions)*
- communication networks (facebook, listserv, moccasin telegraph) among recreationists*

*In VERY rare instances, the only solution to safeguard human lives is to remove the wood feature.*

*We would like to see DFO work with first responders and the river recreational community to establish clear protocols as to hazard mitigation, including those rare instances in which debris-removal is the only option for human safety.*

***Any positive things that are directly related to DFO***

*As always, DFO is to be congratulated and thanked for the fine work they do. We are grateful for the positive and approachable demeanour of DFOs local reps. Keep up the good work!*

***Any things coming up that DFO should know about***

*The Cowichan River Weir Replacement Project will hopefully get shovels in the ground soon.*

*One important function of the new weir will be an engineered fish-passage feature, allowing fish to travel easily through the weir, between river and lake. It's ASSUMED that this fish-passage feature, as designed, will be effective.*

*However an independent study, conducted by river engineers, specializing more narrowly in fish passage, raises significant concerns as to the efficacy of the current design, AND as to potential danger to humans. (Copy of report available. Talk to us.) As fish passage is of the highest importance, we urge DFO to take 'a sober second look' at this engineered function in the weir replacement design.*

***Any issues that are affecting groups and their projects that are related to other agencies:***

*We must remind ourselves that 'biodiversity' is an inescapable characteristic of watersheds. The prosperity of salmon, as for ANY organism, is tied to a healthy and dynamic balance among all elements – including homo sapiens sapiens.*

*Climate change is the central problem. And because climate change is human-caused, we must embrace and include human and cultural sciences (eg. sociology, psychology, economics, education, health, recreation,) among our 'other agencies'.*

*From personal experience as a recreationist, I suggest that local stewardship common*

*practice has been reluctant to integrate this sense of diversity.*

### **Sooke River area**

*The major issues again on the Sooke River is the upper Estuary area .*

*The fishing pressure on spawning salmon is out of control. When fish are caught and released seals are waiting for a easy meal.*

*The lack of water flow and the hatchery fence stops any migration until the rains come.*

*The upper estuary 1500 yards should be closed to salmon fishing period. Especially when you are dealing with many habituated seals.*

*With the chinook numbers dropping off*

*( should be rising with the net pen ) and chum numbers at a all time low.*

*This will help remove one of many stressors that the salmon have.*

### **Thetis Island Nature Conservancy (ThINC)**

- **forage field sampling about to start again**
- **Abrupt Shellfish application for rezoning in Rock Fish Marine Conservation Area and Safe Harbour area:**

Zoning Change Application:

On February 02, 2020, Abrupt Shellfish applied for a zoning change to the Island Trust.

The Thetis Island Local Trust Committee Meeting Agenda Notes of June 02, 2020, give a good overview - pages 08-65.

[https://islandstrust.bc.ca/wp-content/uploads/2021/02/th\\_202...](https://islandstrust.bc.ca/wp-content/uploads/2021/02/th_202...)

"Abrupt Shellfish Inc. made an application to Front Counter BC in 2017 for a subtidal crown land tenure for the on- bottom culture of geoducks and horse clams (by catch). A referral from Front Counter BC for the current crown land licence of occupation application was responded to by the Northern Office planning staff in 2018, which recommended refusal of the project due to the lack of permissible zoning. Despite the response, the applicant has chosen to apply to rezone. As such, the application must be processed and provided due process."

### **Cowichan Stewardship Roundtable (collaborative network of multiple community groups):**

- Fish Kill DFO Analysis
  - Report recently came back on the fish kill below Skutz Bridge July 13, 2023 stating the source of the fish kill was not point source pollution, rather it was environmental conditions. They found lesions that indicated stressful conditions. Two fish were attacked by bacteria. The low waters and temperatures have created the stressful conditions. Also found were increased concentrations of nitrates and phosphates that have promoted algae. When algae decomposes, it sucks oxygen out of the water, which creates a lack of dissolved oxygen. We found even that large trout died in the river.
  - Fishers have noted that even large trout have died in the river this year. We don't have enough water, and we need the weir.

### ***Somenos Marsh Wildlife Society:***

- Parrot's Feather Control
  - o This project continues to work on parrot's feather removal. There is a concern about how to get rid of it, so we have been working on cutting it. Removal from this site is a concern.
- Fish Counting
  - o Last year we requested people to provide salmon sighting observations on Somenos, Avril, and Richards Creek. This year, we are going to expand this program.

### ***Xwulqw'selu (Koksilah )Connections Stream Teams 2024***

- o Next year we will start up another stream team group with orientation so please get in touch with Jennifer Shepherd, jshepherd@uvic.ca to sign up.

### ***Cowichan Watershed Board***

- Estuary Restoration Project came up this summer. The Watershed Board will work on getting good information out and figure out how to pass that along.
- The Xwulqw'selu Watershed Planning project involves a Cowichan Tribes table, a Community advisory table, and a government to government table. We are working on the terms of reference. There were a lot of fantastic applicants for the community advisory table. Want to thank everyone who applied. It will be a great table with a diverse group of people to consider options and bring forward their perspectives.

### ***Cowichan Tribes, S-hwu- hwa'us Thi'lut kwa'atl'kwa (Thunderbird Protecting the Ocean Program)***

- European Green Crab Monitoring
  - o So far, there are none found in the Cowichan Estuary, however they are easy to miss. So far, this is good news.
- Penelakut Island Green Crab Monitoring
  - o There is sampling being done on the east side, and, unfortunately, one green crab was found this summer. We hope to assist them with sampling in October.
- If people are interested in volunteering:
  - o DFO's aquatic invasive species team is very reliant on volunteers. They provide traps and herring bait, and the BC Invasive Species Council works with them. You can do the online training for scientific harvest and training, so if anyone needs another project, they are always looking for more people to take on that work.
- Marine Debris Information
  - o Our team has been collecting marine debris from Chemainus to Arbutus Ridge. We shared the information with the Rugged Coast Society. They

are focused on estuaries, including Chemainus and Cowichan. We said we wanted to pair with them on a tire clean-up. There are a lot of tires on the beaches there. We are working to do a clean up from Arbutus Ridge to Octopus Point of non-hazardous debris. That pairs with the restoration site at the dike where they took out a number of tonnes of garbage, including a dock and hazardous debris. So lots of good news.

- Tim's Sampling Projects
  - o There will be an update on that for our next ocean update newsletter.

### ***Cowichan Lake and River Stewardship Society***

- Witnessing the Water Book
  - o We have been busy with the roll out of our 56 page coffee table book. Please buy one, they make a great Christmas gift!
- Connecting Through Water Festival
  - o On August 26<sup>th</sup>, we had our connecting through water festival at Saywell Park at Lake Cowichan. A number of groups were there, Catalyst was there, and others. We got information about the importance of the weir out. We were also selling the book there and gave out memberships. We had a wide variety of groups that hosted tables. There was face painting, bubbles, and other activities. Over 200 people attended.
- Letter to the Province on the Weir
  - o This letter will be on our website mid-October.
- Public Information Campaign
  - o We are going to do work with the Watershed Board to get information out to all lakefront owners on the lake about the weir and the reason why we need a new weir.

### ***Heather Wright (DFO Community Advisor for the South Island)***

- Cowichan Hatchery
  - o The Cowichan Hatchery is open, they are looking at starting their collections in the next few weeks.
- Exeter Creek
  - o I have been helping Joe Saysell with Exeter Creek, which is a Cowichan tributary near Lake Cowichan. In the 1960s, there was a blow out and it has been blocking the creek for a long time. It is not accessible to juvenile fish at low flows, access is limited to adult fish. I went there with Joe and staff from the restoration unit. It was sitting at 15 degrees instead of 22.5 degrees at the mainstem. This is considered cold water refugia where the fish can escape higher temperatures in the main stem. Staff took that information back, DFO deemed it a good project to work on. We will be working on this at the end of the month.
- Salmon Interpretation Program
  - o Will be meeting with Genevieve Singleton and others on the salmon interpretation program.

## **Pender Island Island Conservancy**

### **History:**

Our salmon stream restoration on Pender Island first began over 20 years ago when a group of Pender Conservancy volunteers, acting on community information that chum salmon had been seen in the Hope Bay stream historically, started preliminary work on mapping and surveying the stream to see if it would be a viable candidate for a salmon stream enhancement project, despite the fact that it is a seasonal stream which is dry from early summer until mid autumn. Eggs from the Goldstream hatchery were first placed in the stream 2013, and since then between 10,000 to 40,000 eggs have been placed into the stream except for 2014 and 2022.

### **Partnerships:**

We have been fortunate to have excellent partnerships with the Hope Bay Bible Camp (on whose property the hatching cassette is placed, and education sessions are presented), the Pender Island School, and the folks at the hatchery at Goldstream, especially Peter McNully. We have had ongoing assistance from DFO, with community advisors bringing the eggs to Pender every January and giving talks to the school children, their parents, and volunteers.

### **Currently:**

Every winter volunteers take the stream temperature, monitor the hatching cassette, and watch for emerging fry. Every spring and summer, habitat restoration work takes place. Every autumn volunteers monitor the stream and the Hope Bay Estuary for returning fish. We have more than 30 volunteers participating in the project.

### **Issues:**

We have no issues related to DFO or any other government or community agency.

Our main issue is that, unfortunately, we have not detected any returning salmon. There have been occasional reports of fish and an increase in the number of seals in the estuary in late fall, but the species of the fish are unknown. The lack of returning salmon may be partly due to inadequate stream flow in October and early November. I believe that adequate stream flow has been attained, on average, later in the season than it may have when the project was first conceived. I am only speculating, but this may be due to lower levels of summer rainfall, upstream changes in land use impacting habitat, and increased water demand in the stream's watershed.

The lack of returning salmon does not mean that the project has not been successful. The chum fry move out into the estuary every year where they become part of the marine food web. The project also provides excellent opportunities for community awareness and education, especially for the school children.