



## COWICHAN LAKE SALMONID ENHANCEMENT SOCIETY

Date: June 10th, 2021

Re: Outdoor Learning Program Class Report – Shaw Creek

From: Bob Crandall CLSES

Shaw Creek is an especially important stream that flows year-round providing freshwater flows to Lake Cowichan and the Cowichan River. All other tributaries of Lake Cowichan dry up each summer while Shaw continues to flow.

Long ago the spring run of Chinook Salmon in this stream provided the main source of protein during the summer months for the local First Nation "Ts'uubaaasatx" "People of the Lake". The Cowichan spring run Chinook species are a dwindling species with very few numbers remaining. We were able to secure DNA via fin clips from juveniles and send them to the Department of Fisheries and Oceans (DFO) Molecular Genetics Lab who found that this species of Chinook (DNA) is not in any known data bases. In several years we found more samples of that DNA with the same results. The Sidney Anglers Association sponsors this research that we at Cowichan Lake Salmonid Enhancement Society (CLSES) conduct. This stream provides learning opportunities for both young and old. Due to COVID restrictions efforts to book the Lake Cowichan Outdoor Learning Program Class for an educational visit was a monumental logistical task. School District buses are not allowed to travel on logging roads so chartering a Coach School Bus from Wilson's Transportation was required. Mosaic Forest Management Company provided a pilot vehicle and Pam Jorgenson RPF with twoway radio contact to the logging trucks to ensure safe passage to the sites.

On Thursday June 10<sup>th,</sup> the Outdoor Learning Program students boarded a charted bus and travelled to Shaw Creek. Twenty-two six and seventh grade students from

Lake Cowichan Middle/High School with Teaching Instructor Shannon Steininger and two UBC students Rachel and Nina were in attendance.

## **Photos:**



Students crossing Shaw Creek in cool waters (9.5 d C).



Checking pre-set minnow traps for juvenile salmonids. James Ross (Jim) from Ts'uubaa-asatx at right side of photo working with us, two students from UBC also present.



Coho Salmon, Cutthroat Trout and a Sculpin "Bullhead" being identified and measured.



Jim passes the pail of fish to students for release after identification & measuring. All data is logged in a field book for research purposes.



Student releasing fish back into one of the Elk Garden side channel pools. Later this summer these pools will dry up and that is when we net the stranded fish and release them into the Shaw Creek main stem.



A Cutthroat trout several centimeters larger than all others measured on this day. What has this fish been feeding on to grow so much larger than its siblings?



Bob is describing the dual lane side channel stream morphology to the students.



Pam Jorgenson (our Pilot/Guide) from Mosaic Forest Management releases fish back into the main stem.



Lunchbreak. The small red flag in bush on ground marks a bird nest. Caution.



The Killdear bird (Charadrius vociferus) lays its eggs in a ground nest.



The Emerald Pools can only be accessed by the Huckleberry Trail.



Students explore upper reaches of Shaw where Emerald pools and waterfalls are.



The Shaw canyons go on and on, each with a pool and waterfall.



Outdoor Learning Program Class of 2021.



No trip to the Elk Gardens is complete without Elk. This one is eating Scottish Broom Blossoms..."Eat Broom in Bloom" she said.



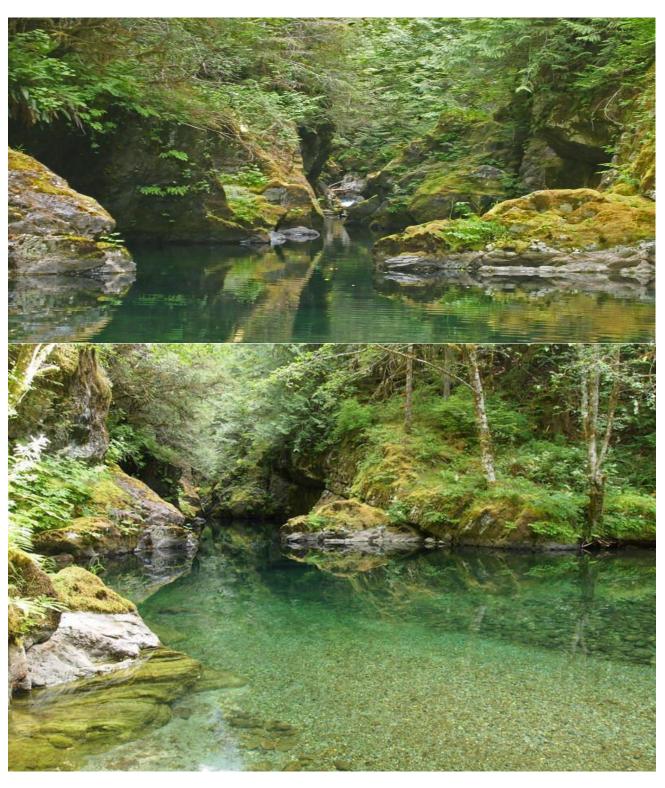
Thank you, Pacific Salmon Foundation!

**Note:** Despite the hurdles of COVID restrictions we were able to explore many tributaries of Lake Cowichan, the Cowichan River, the Cowichan Estuary and Shaw Creek this year. This was made possible through a grant from Pacific Salmon Foundation to the Cowichan Lake Salmonid Enhancement Society. A holistic approach to Cowichan Watershed education has prevailed during the exceedingly difficult time of an international Pandemic. Just imagine what could be achieved in a healthy world.

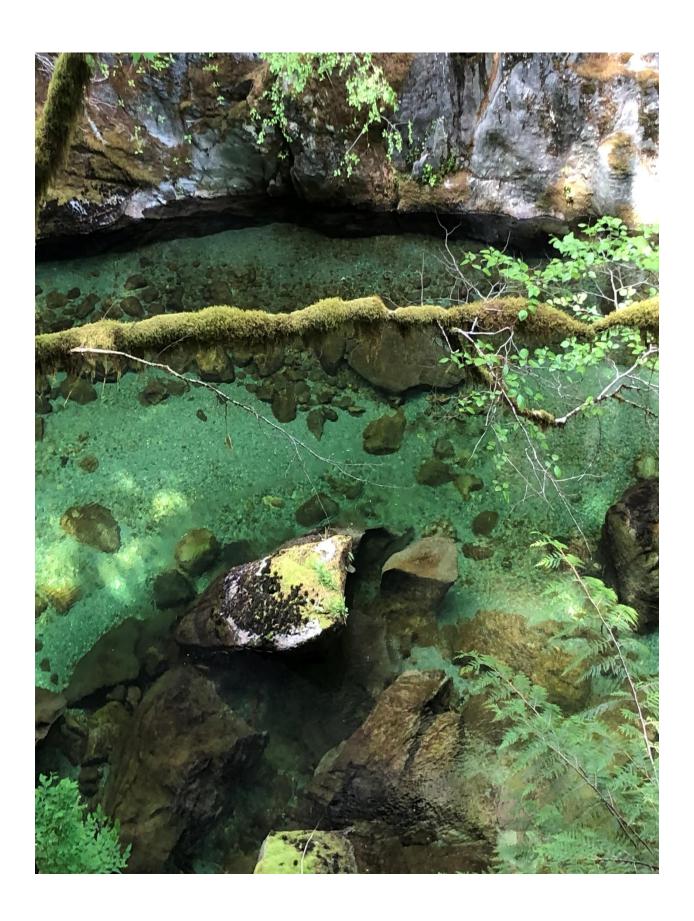
Big Thanks to Everyone who helped make this possible. bc

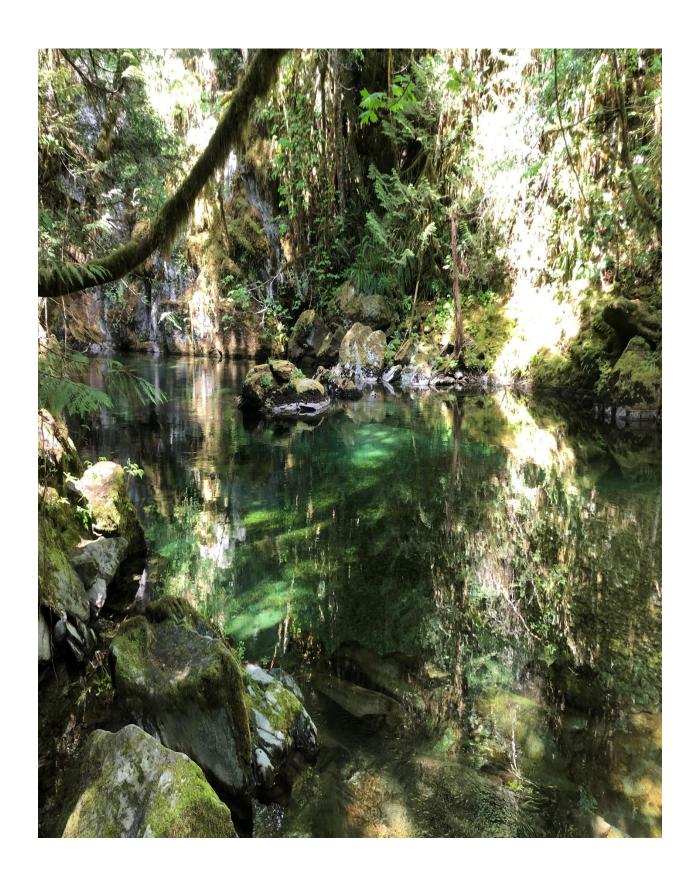


Shaw Creek Sockeye (BCCF) photo.



Upper pools of Shaw Creek...just keeps going and going.





On Friday, September 6, 2019, 8:29:30 AM PDT, Araujo, Andres <<u>Andres.Araujo@dfo-mpo.gc.ca</u>> wrote:

## Good morning, Bob.

Thanks for you reply. It seems you guys do great job in the Cowichan. I will be happy to analyze your samples with that rare DNA signature. Are they preserved in ethanol? Do you have scales? Any pictures? Our techniques have changed and we are improving our baseline. We are also undertaking a project to identify hybrids, most likely occurring due to habitat changes in the watershed. If you could send me some vials/scales (about 100 or whatever you have) so they arrive in the coming week that will be great. If you can include the stage, exact location and the dates collected for each sample even better.

I am not in the office today, but let's talk on the phone sometime soon.

Andres Araujo Molecular Genetics Lab Pacific Biological Sation 3190 Hammond Bay Rd, Nanaimo, BC V9T 6N7