



September 2022 Newsletter



GIS

Talicia has been working with the Heritage and Environment departments on several projects this summer. She went into the field with the Environment team for their McKay Rehab Planning and Bighorn Sheep Monitoring projects to determine their needs in Lightship for their data collection. Talicia has also been out in the field with the Heritage team for mapping support and configuring their GNSS device on SLEMP. She has been sitting in on Lajoie Technical Working Group meetings and the archaeology subgroup discussions. For capacity building, Talicia has been attending webinars and the Esri User Conference to stay up to date with GIS applications.

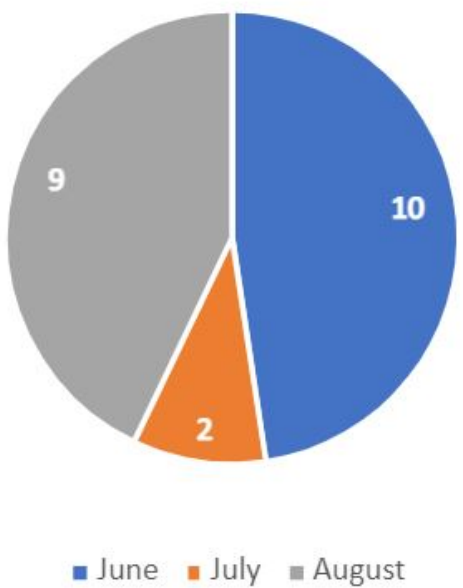


Culture and Heritage

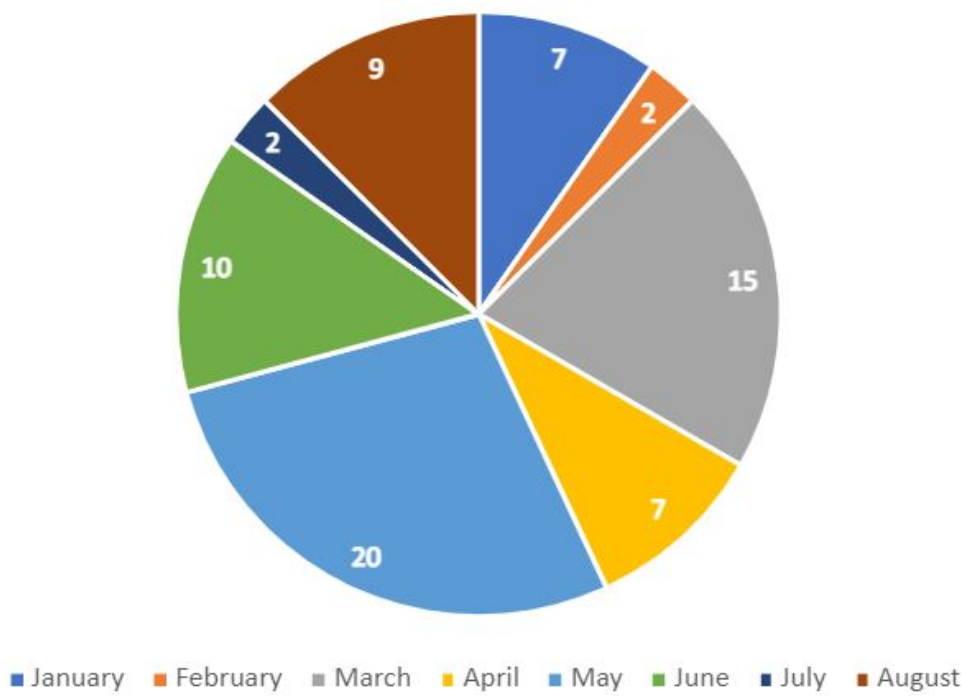
Chester Alec, Sam Copeland, Alysha Edwards and Nadine Gray are working on the SGS Culture and Heritage Team on several projects this summer. Our work is supported by Talicia Kane, GIS Technician for fieldwork, digital recording of archaeology sites and map production.

Thanks to funding from Canada Summer Jobs and BC Hydro summer placement funding, Alysha Edwards re-joined the team in July after she completed excavations with the University of Montana at the Bridge River Pithouse Project. An update on the fieldwork will be provided in a later newsletter.

Pole Replacements Completed



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A total of 21 Pole Replacement Projects have been completed by Chester Alec, Sam Copeland, Alysha Edwards and Nadine Gray in June, July and August.

The crew has also been working on reporting on the fieldwork results for the Downton and Carpenter Reservoir Archaeology Program and conducting fieldwork for the Seton Lake Erosion Mitigation Project.



Alysha Edwards, Nadine Gray and Martin Lawrence (BC Hydro) during fieldwork assessments at a high-risk erosion site on Seton Lake (July 2022). Photo credit: Talicia Kane



Seton Lake Erosion Mitigation Project (SLEMP)

In July, SGS Heritage completed site visits to high-risk erosion sites to record geological and geomorphological data which will be used to develop engineering design for slope stabilization. Northwest Hydraulic Consultants (NHC) assisted SGS Heritage in completing geomorphological profiles of the lands and is drafting conceptual designs for erosion protection. This scope of work is a continuation of field assessments started in 2020 at high-risk erosion sites. The work at the high-risk erosion sites will be using wind and wave data that the buoy on Seton Lake has been recording since August of 2020. Rather than using computer models to predict the wind and wave activity on Seton Lake, the data from the buoy will be used to test the accuracy of the computer models and provide a new data set for future works.

The next steps in the SLEMP project are to identify additional sites of cultural importance at the shoreline that could be impacted by the lake levels. For this work, SGS Heritage is working with Knowledge keepers from Tsal'alh and T'it'q'et to document culturally significant sites on Seton Lake that may be at risk of erosion. Field visits are planned for September.



Travelling to the field office on Seton Lake. Photo credit: Talicia Kane

In August, we were at the river, fishing with family.



Dip netting



Chester Alec checking water levels and tie spots

Active Job Posting

A job posting for heritage field technicians is available on the [SGS webpage](#) and is also available on the St’at’imc Facebook page. We encourage qualified people to apply for this position for work on BC Hydro projects throughout the year. Anyone interested in heritage work with SGS can contact us via email heritage@statimcgs.org or at 250-256-00425 extension 224



Environment

White Sturgeon Environmental DNA (eDNA) Project at Seton and Anderson Lakes

Environmental DNA (eDNA) sampling is a new method of capturing DNA in fish, amphibians, and other aquatic species. Organisms produce genetic material that can persist in aquatic environments as eDNA when expelled as sloughed cells, feces, or other exogenous processes. As a result, this technology allows for the accurate identification of fish species from only water samples. This is straightforward, fast, more cost effective, and easily collected by a single person. It is possible to capture an inventory of entire streams using eDNA in comparison to other conventional field sampling methods that are more labour intensive, invasive to sensitive aquatic ecosystems, and require experts to design and lead the program. The use of eDNA methods by SGS Environment provides information of the presence, distribution, and habitat use of aquatic species at risk within the St'át'imc Territory.





The SGS Environment team completed a field program this summer on the assessment of White Sturgeon presence and habitat use in the Seton Watershed. The Project Fisheries Biologist, Matt Coombs (M.Sc., P.Biol., R.P.Bio.; Fintegrate Fisheries & Watershed Consulting Ltd.) and eDNA Technical Expert, Jared Hobbs (M.Sc., R.P.Bio.; J Hobbs Ecological Consulting Ltd.) worked alongside the SGS Environment staff during the kick-off training, tissue sample collection, and water eDNA collection. SGS Environment also collaborated with Splitrock Environmental Sekw'el'wás during the kick-off training and participating in the fieldwork.

The project team collected tissue samples from White Sturgeon on the Fraser River and sampled eDNA at sites within the Seton Watershed to assess whether the species still occurs at Seton and Anderson Lakes, which are isolated from the Fraser River by Seton Dam. These lakes were once important feeding and overwintering habitat for the species. All tissue and environmental samples are currently being analyzed at Dr. Caren Helbing's lab at the University of Victoria. Dr. Helbing's lab will design a White Sturgeon assay using available genetic sequence data, isolate DNA from the fin clip tissues, swabs, and eDNA samples, and conduct validation of eDNA assays in the project area. The analysis from the lab will determine more accurately where White Sturgeon populations occur within the watershed and how barriers may impede White Sturgeon movement upstream or downstream from the dam. This in turn identifies and prioritizes habitat recovery initiatives that SGS Environment and St'át'imc communities will take in the future.



Work Experience and Future Plans by the Summer Hires

My name is Braeden Napoleon and I am the Fisheries Summer Technician with the Environment team at St'át'imc Government Services (SGS). Throughout my work term this summer, I have been getting a lot of training and work done. In the first couple of weeks, I finished my Forest and Range Evaluation Program (FREP) training, which helped me understand the health of streams and how to classify them. The team had Swiftwater Rescue training in the second week. I learned how to save yourself in situations of rapid waters and how to save others. I completed the Wilderness and Remote First Aid and Baby it's Cold Outside certificate program.

Baby, It's Cold Outside was an e-learning program before the training – it was on hypothermia, learning proper techniques and protocols for helping someone that is hypothermic, and learning how to do CPR on someone who is choking. I learned to give the best care possible with the resources on hand as we don't know when help will arrive when working in a remote location.

The Environment team had three field programs that I assisted with: West Pavilion familiarization trip, Seton Lake environmental DNA (eDNA) project, and Fraser River Bighorn Sheep monitoring. Sheep monitoring kept my eyes sharp and our team travelled long distances down West Pavilion to look across mountains and in fields. During those field trips, we also saw into things such as Mule Deer and their Fawn, Bald Eagles, Cows, Crows, and Golden Eagles. We even found traditional resources and rocks, such as basalt and ocher.

Darwyn John took the team on a journey through West Pavilion. He showed us different BEC zones, campsites, and canyons and at one of our stops we visited us Shraeder Lake. It was a beautiful place where hunters stay during the fall and we found bullet casings around the area. Darwyn told me the brass metal would be excellent for my regalia that I'm making.





My favourite project was the Seton Lake eDNA project where I learned to collect baits and water samples using a Van Dorn sampler from the project biologists, Matt Coombs and Jared Hobbs. Filtering our own water samples and being in a boat are learning experiences that I haven't done before.

Next month I'm starting my second year at NVIT. The Seton Lake project and learning how to use eDNA will help me with my Fisheries Ecology and Watershed Hydrology courses. Knowing the different BEC zones will help with my Silviculture course, and the Bighorn Sheep monitoring will help with my Wildlife Ecology course. This summer has taught me a lot about diverse projects and meetings that I've been a part of. I'm happy to be a part of the SGS Environment team this past summer.



Hello, my name is Chanvre Oleman and I am a Wildlife and Lands Youth Summer Hire working for St'át'imc Government Services. I started work on June 27th. Since then, I have learned and gained lots of knowledge and experience in many different areas of the environmental sciences and natural resources. I have done training in Remote and Wilderness First Aid, Baby It's Cold Outside, Occupational First Aid Level 3, Forest and Range Evaluation Program, and Swiftwater Rescue.

I have done lots of work, both in the field and the office. For fieldwork, I have done ground truthing for the McKay Creek post-fire rehab planning and a familiarization tour, retrieved a camera for the Grizzly Bear DNA project in Van Horlick, assisted in setting up the bait, entered and managed data, and filtered water samples for the White Sturgeon



environmental DNA project at Seton and Anderson Lakes, and monitored Bighorn Sheep in the West Pavilion areas.

For the office work, I have been shadowing meetings with the SGS Environment Technicians and Manager, including the rehabilitation for the McKay Creek fire. I have learned that there is a long step-by-step process before acting in rehabilitation planning. Some other discussions I have attended are on the Fraser River Bighorn Sheep and learning about Invasive Species in the Territory. I have been researching Carbon Credits, seeing how they can be applied in rehab planning for McKay, and how these credits can benefit

communities affected by the fire. I have also explored the Pavilion Lake microbialites and read NASA's research. I find it fascinating how a particular organism can only be found on Mars and is rare to be found on Earth.

I am excited to return to school and apply my learning from working here at St'át'imc Government Services to my Natural Resources Science program courses at Thompson Rivers University.





Finding Roots... Growing Fruit

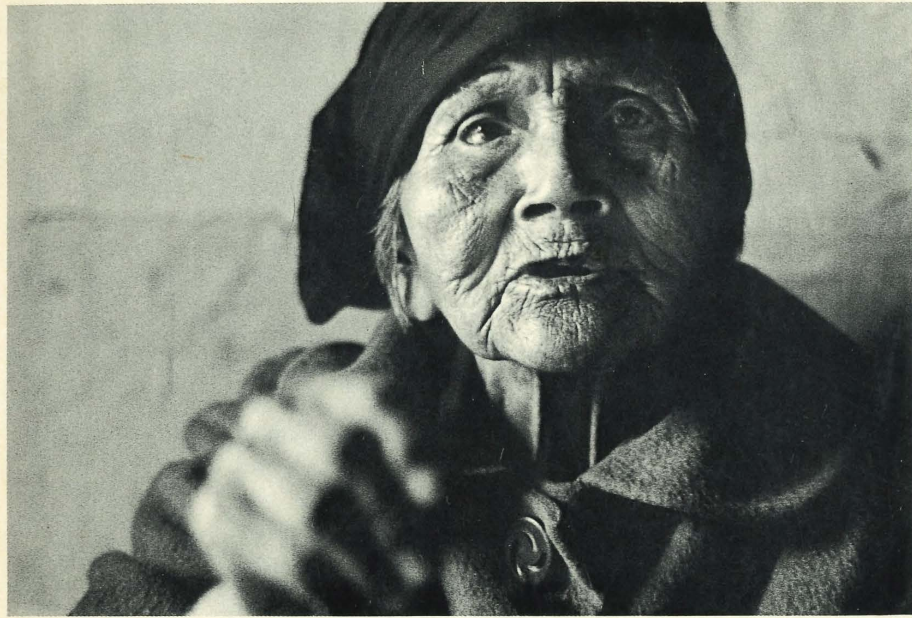
By Vanessa Richards: On-Call Receptionist

“A people without the knowledge of their past history, origin and culture is like a tree without roots” – Marcus Garvey

While browsing through the many documents in the ASK (Accessing St’at’imc Knowledge) library I came across so much information and various topics. Some are not so exciting and others quite interesting. What struck me the most, really, is the story behind each part and I discovered the impact that it makes on us today.

There are 3 things I’d like to share with you from my recent perusing of history from this beautiful place of Lillooet we call home. For some of you home for many generations and some of us more recently. But still, the history etched in each location has a story and lesson that can give us insight and wisdom. One of the things I hoped to share can’t be shared right now; so maybe another time.

THE DAYS OF AUGUSTA



Edited by Jean E. Speare

Photography by Robert Keziere

First, is a poem from a book called “The Days of Augusta.” Compiled in this book are photos and poetry from the life of Mary Augusta Tappage, born February 11, 1888, whose maternal grandfather had been chief of the Soda Creek First Nations. She shares, "What I could never understand, we weren't allowed to speak our language. If we were heard speaking Shuswap, we were punished. We were made to write on the board one hundred times, 'I will not speak Indian anymore.'" Augusta shrugs and gives a little laugh. "And now we are supposed to remember our language and our skills because they are almost lost..." In the later part of her life after her Grandchildren arrived and great-grandchildren; Augusta went on teaching them all. “In an age that is moving almost too fast to listen, she speaks resolutely and her philosophy is obvious. "Life was good" she says, "I have not been idle altogether.””

Reading about her and seeing pictures of her reminded me of my Paternal Grandmother or “Lola” Olympia. She had a similar philosophy. Born in the Province of Pampanga Philippines she immigrated to Canada along with 8 of her 9 children in the early 1970s. As a child, I remember she didn’t speak much English. So she spoke to us in their dialect while we would respond in English back to her. At that time in our lives, we weren’t so interested in learning but now my cousins and I have tried to take initiative to learn and understand our roots and our history and the amazing stories in our family that have made us who we are today.

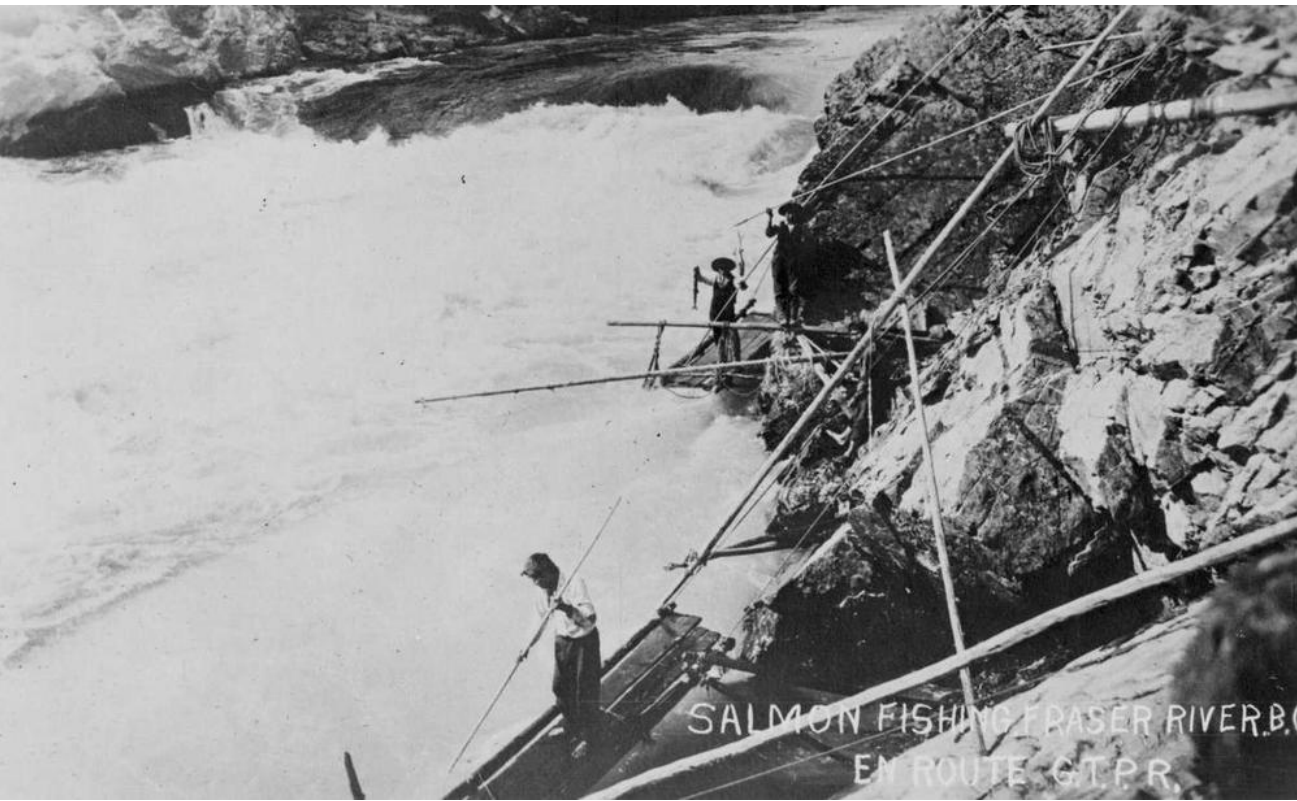
Back to the Poem, Mary Augusta writes about “The Lillooets.”

The second is a story from the 1800s. But this will have to be shared another time. Aren’t you so curious?

Third but not least is some historical photos that perhaps you’ve already seen but maybe you haven’t. Taken in the early to mid-1900’s I knew where these places were located. It was neat to see how they had changed but how they were also still the same in some ways.

I have enjoyed seeing photos, especially of salmon fishing and drying lately as it has been passed on from generation to generation. And so, when you visit these locations and think about these stories, think of this wealth of knowledge; roots, if you may, that give life to this tree. We are the leaves or fruit and we grow and thrive when we take time to reflect and

learn from the history that shouldn't be missed or forgotten but shared and remembered.



Indigenous Day Activities at Sk'il' Mountain Community School

Back in May, BC Hydro was invited to participate in upcoming Indigenous Day activities at Sk'il' Mountain Community School, the local elementary school. After some discussion with

the school principal it was agreed that we could organize a half-day program including a field trip for the school kids. Immediately, a small team of employees jumped into action.

A fun and educational slide show was produced and presented to the kids after their lunch break. It was to teach the kids about electricity, how it’s produced, and the special relationship between BC Hydro and the local community. After that, about 35 kids, teachers and helpers boarded the school bus for a visit to the BR1 Surge Towers. The location for the tour was specifically chosen because of its cultural significance. It was said to be a lookout point with a panoramic view to the east across Seton Lake to Lillooet and west across Anderson Lake to D’Arcy. Signals were passed and relayed from there and archaeological artifacts have been found nearby.

The remainder of the day was spent on the “Island” at BR1 where the kids got to take a look at our boathouse and crew boats.

A good time was had by all, helped no less by all the cookies and freezies provided by BC Hydro!

Credits:
Christopher Stevenson – Powerpoint presentation
Lorna Carlton – Host and Safety Oversight
Ravi Patel – Host and Provider of Treats
Simon Phang – Host and Logistics



Capital Planning

This past month was spent planning for the BRTP and LaJoie project opportunities. Meetings with contractors, businesses and BC Hydro were used to define the scope of opportunities for St’át’imc businesses on these projects. The supply chain strategy – a document setting out how the various components of the project will be procured is the goal of this planning. We expect to have much more insight to share at the October Quarterly Capital Planning Meeting.

Many of you may be familiar with the Horse Shoe Bend project – the first business opportunity was offered to Xwisten (based on the first right of refusal). The ‘early works’ in this opportunity include road access and initial civil construction at the site of the future fish channels. This project will take several years to complete and is being managed by the Joint Planning Forum. If you would like details on the project, please contact the Joint Planning Forum through the SGS offices.

Another way to get up to speed at your own pace is to access information on SharePoint. Here is a small sample of what you can find on the [St’át’imc SharePoint Information Portal](#):

- Reports on the [Reservoir Archaeology Program](#) and the [Seton Lake Environmental Mitigation Project](#)
- [List of the BC Hydro projects](#) in St'át'imc Territory
- Copies of the [BC Hydro project opportunities](#) that have been provided to St'át'imc businesses
- Materials and notes on the [Quarterly Capital Planning Meetings](#)
- A [glossary of the commonly used project and system terms](#)

The St'át'imc SharePoint Information Portal access now requires Multi-Factor Authentication – an instruction sheet has been sent out on how to set this up. The instructions also provide a way to contact tech support should you have a problem. If you did not receive the instructions, please call Sherry Kane at SGS (778.771.5903)



The 2022 St'at'imc Scholarship FUNdraiser Golf Tournament is FULL!!!

Sorry to those that missed entering a team this year.

We are still seeking prize donations and direct cash donations to the Scholarship Fund!

Stay tuned for other opportunities to support St'at'imc Lifelong Learners!

For more information on packages including prizes, sponsors, and registration forms please contact:

Courteney Adolph-Jones
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