



Friends of Kootenay Lake

Stewardship Society

2018 Kootenay Lake Summit: History of Kootenay Lake

November 3, 2018

Opening speech – Avery Deboer-Smith

- Thank funders and donors
- Recognize unseeded territory
- Housekeeping
- Agenda
- Annual membership info

Welcome from Ktunaxa Band – Chad Luke

- The ability of populations in the coexist and thrive together

Kootenay Conservation Program – Juliet Craig

- Detailed her own experience living within the Kootenay Lake Community
- Information on the Kootenay Conservation Program (KCP)
- Outlined KCP's goal to coordinate and facilitate conservation efforts on private land and generate support and resources required to maintain effort
 - Protecting private lands by being 'cooperative and collaborative'
 - Stewardship partners, over 80, including FOKLSS – a better together core value
 - Trying to better engage local governments in conservation efforts
- As part of KCP, landowners agree to pay taxes which are put towards specific conservation efforts meaning there can be up to \$100,000 available for allocation
- Biologists are hired to determine the best use of funding
- Stewardship solutions: find local services to help with conservation on YOUR property on the Kootenay Lake - Available online
- Conservation efforts that the KCP has set into place have become exemplary, and other areas of BC are following suit!

North Kootenay Lake Water Monitoring Project (NKLWMP) – Samuel Lyster

Hydrometrics allow us to create relationships to bodies of water and their stream discharges

- From the 1900's to 1940's, hydrometrics (stream gauge stations) became increasingly common, but then plateaued off and decreased

- Funding and prioritising is set by provincial government which is leading to a decrease in water research
- Water licenses:
 - increased exponentially from the 1900's up to today
 - Examples: domestic licenses, irrigation (larger license quantity), power + flood storage, commercial, lawn, fairway, breweries, etc.
 - Many uses for water in the area and many different licenses allow different allowances of water.
- NKLWMP have 7 different hydrometric stations in different watersheds, two of them being high elevation stations (i.e. Ben Hur Creek.)
- Typically hydro stations are in valley bottoms but NKLWMP is curious as to how climate change is affecting upper basins
- Importance of hydrometric data:
 - Hydrographs are the heartbeat of watersheds, fluctuation seasonally (peaking in freshet)
 - The more data we have on water, the better we can observe and predict trends.
 - We need abundant series of data to make better inferences and observations.
 - \$12-20k/ year average cost to make a road accessible water station and run it for one year.
 - Collecting data is important, but we must use this data to make inferences and impact change with it. How can we make data useful for the needs of the public in different communities?
- Food for thought: Ymir concerns re; logging and its impact on their watershed. If we had more data surrounding this stream body we could better understand its impacts.

Central Kootenay Invasive Species Society (CKISS) Laurie Franckom

- Zebra and Quagga Mussels (ZQM) - No natural predators, female can lay up to 1000000 eggs, ZQM made their way from Europe by hitchhiking on shipping vessels, arriving in Lake Erie
- What if ZQM arrived in Kootenay Lake?
 - If ZQM entered Kootenay Lake, it would cost govt ~\$43 million/ year.
 - Huge food web alterations
 - Toxic algae blooms and filter water to a point where food sources such as plankton are removed
 - Affect recreational activities by cutting swimmers feet
- ZQM getting closer to Kootenay Lake,
 - Early detection system to keep a close eye on this.
 - CKISS is using plankton tows to sample numerous sites in Kootenay Lake for the ZQM, but prevention is KEY!
- How is CKISS preventing ZQM?
 - Mandatory boat and watercraft inspections – every year, program expands with help of funding from BC Hydro, Fortis, etc. Program expansion helps expand hours, sites and number of inspectors

- No. people interacted with/ boats inspected:
 - o 2015: 10,0000
 - o 2018: 65,000
- What can we do to help stop an invasion of ZQM?
 - o Lobby your MLA to increase hours of watercraft inspections and employ more mussel sniffing dogs
 - o Help promote the Clean, Drain + Dry inspection stations
 - o Don't let it loose program: don't dump domestic pets i.e goldfish into Kootenay Lake
 - o Choose non-invasive plants for your water garden
 - o Dispose of garden waste properly
 - o Report high priority invasive species such as yellow flag iris, fragrant water lily and purple loosestrife.

My Old Sister, Kootenay Lake – Luanne Armstrong

In 1938, her grandfather bought hundreds of acres of land adjacent to the lake in Boswell for \$2,000, they still own half of this very productive land – old growth Cedar

- Parent's grew about 90% of their food on this land, much of this which they shared, as there was a stronger sense of community
- Luanne understood from a very early age that where she lived was beautiful 'beauty cannot be eaten, consumed, sold or bought'
- Her father built the community of Boswell's water lines in an act of generosity
- Water marks up the mountain were indicative of the depths of the lake in its heyday - up to 600m
- Her great-grandfather was one of the first farmers/ settlers in Creston, while her grandfather was one of the very first settlers along the Kootenay Lake
- The Kimberly fertiliser plant dumped all of their waste into the Kootenay Lake in the 1960's, and Luanne would get sick from swimming in the lake in the summer
- Lake began to stink and develop algae blooms as it had too many nutrients
- In the 60's when the Libby Dam was built and the Kimberly fertilised plant closed, the lake became devoid of nutrients again to the detriment of the Kokanee
- Mysis relicta (a shrimp-like crustacean) were introduced to supplement the Kokanee in 1949 but they had more detriment than benefit to the lake, as they impacted the food webs in unforeseen ways
- The Mysis relicta became competitors for the Kokanee because they both fed on and vied for the same food sources
- As of 2013, Kokanee are struggling to thrive in the ever impacted lake conditions
- Logging in the 70's also threatened the health of the lake and the watersheds
- Dams also threatened (and continue to threaten) the well being of the lake when dam building began to crescendo in the late 60's
- Kootenay Lake is now a large, clean, clear lake, meaning the main problem plaguing the lake is that it has always been low in nutrients

Prehistory and Archaeology of Kootenay Lake with Michael Cone (1921-1963)

- The invention of the car gave rise to independence of people and the ability to begin to explore the backcountry
- Auto camping became a norm, and auto camps began to pop up along the Kootenays
- Proposed Southern Trans-Provincial Highway: idea was to link existing roads together and build roads to connect where needed. This was pre-WWI, so interest was low. Post-WWI, interest was rekindled and a surge of interest in building this highway surfaced
- The main issue: How would cars cross the Kootenay Lake? There was a gap in this space of geography until 1921
- Kuskanook Wharf built 1921 to make travel possible across Kootenay Lake from Nelson to the other side of the lake via the west arm
- The Nasookin Ferry service started up
- From 1921 onwards, things began to develop in Kuskanook as demand for the steamer increased; the Anglican church had a service for those waiting in line for steamer service on Sundays
- The Nasookin was then modified in 1927 to be able to carry more cars
- In 1927, the government decided to extend the trans-provincial highway with ambitions of adding in a modern ferry service
- Provincial Government takes over 1931-1947
- A new public minister came in with an intention of re-opening transportation and making it more accessible by bringing a ferry terminal into the west arm
- In April of 1931, they inaugurated steamer service from Fraser's Landing to Gray Creek
- During the depression, passengers would pledge or sell items to pay for steamer fare to get across the lake in search of work
- A family came from Northern AB to Gray Creek and couldn't afford the fare across the lake. The wife of the family pledged her ring to the captain to allow them across and told him she would come back with proper fare once the family found it. Two years later, she came back to pay her debts and collect her ring.
- The Government purchased the Nasookin for \$17,000. They intended to do modifications on the boat to make it less luxurious and more practical
- They made modifications to allow trucks and buses onto the ship deck (greyhound always had priority loading) and the following year, they modified the decks
- The Nasookin needed a boiler wash every 6 weeks, which took about 2 days. When she was not in service, the Moyie took over.
- Modern Ferries
 - 1945: New highways minister was feeling frustration from public about Nasookin delays. The Anscomb was the answer, launching its maiden voyage October 1946
 - In 1951 when the Anscomb was temporarily out of service they had to use the Moyie again in conjunction with the CPR barge
 - The Balfour, built in 1954, was the largest ferry in Canada at the time. The senior skippers were rendered useless when it came to steering this ferry! They used to refer to this ferry as the contiki, a Polynesian raft that floated around aimlessly

- There was an 18-22 foot fluctuation in the lake level, prior to the dams which made for hard work for engineers at the time

Close – Avery Deboer-Smith

