

# **Review of Restoration and Enhancement projects funded in 2018**

**Status Report. Dec 12<sup>th</sup>, 2018.**

## **CONSERVATION**

### **1. Genetic Stock Identification of Pilot Station Chinook Salmon, 2018**

Tissue samples were taken from the majority of Chinook salmon caught in the test fishery at the sonar project located near Pilot Station and analyzed for genetic mixed stock analysis (MSA). Samples were grouped into two strata for in-season analysis and four strata for post-season analysis. In-season MSA from strata 1 (June 1 – June 19) indicated 56% of the 189 samples were of Canadian origin. In-season MSA from strata 2 (June 20 – June 29) indicated 47% of the 184 samples were of Canadian origin. Postseason the four strata periods were June 1–June 13 (number sampled (n) = 97), June 14–June 24 (n=192), June 25–July 3 (n=175), and July 4–August 5 (n=89). Genetic MSA indicated the Canadian-origin stock proportion of each stratum to be 53%, 47%, 41%, and 29% for the four strata, respectively. The weighted post-season total stock proportion of Canadian-origin Chinook was estimated to be 42%. These stock estimates, coupled with the Chinook passage estimated at Pilot Station sonar, were essential to in-season management and the ability to accurately project the passage at the Eagle sonar project. Full project report will be available prior to the June 30 deadline.

### **2. Yukon River Chinook Subsistence Harvest Genetic Stock Identification, 2018**

The objective of the subsistence harvest sampling study was to collect representative genetic mixed stock analysis information, coupled with age, sex, & length data, from the Chinook salmon subsistence harvest in the coastal district and districts 1 through 5. Forty-three subsistence fishermen from 13 communities sampled 1,573 Chinook salmon that were harvested using gillnets, fish wheels, and dip nets in 2018. The age, sex, and length composition of the harvest was 0.3% age-3, 16.9% age-4, 47.1% age-5, 33.9% age-6, 1.8% age-7, 32.5% female, and an average of 725 mm in length. The proportion of the catch that was Canadian-origin ranged from 38% in district 2 to 72% in district 5. The data generated from this project are essential to form the basis of the spawner-recruit models used to estimate past and future run productivity. A final report has been drafted and will be submitted to the Yukon River Panel prior to the June 30, 2019 deadline.

### **3. Blind Creek Chinook Salmon Enumeration Weir. Year 16**

Prior to field mobilization, new weir components (conduit panels and tripods) were fabricated in Whitehorse to replace those damaged during the 2017 flood event in Blind Creek. Camp set-up was initiated on July 14. Weir installation was initiated on July 15 and completed (fish-tight) the evening of July 16. The weir was operational from July 17 to August 18. Personnel were on site 24 hours a day during this period, monitoring the weir daily from first light until dark. The pen was kept closed at night. Daily and cumulative counts of fish passage were maintained throughout the run and relayed three times a week by phone to DFO, Whitehorse. A total of 612 Chinook salmon was counted through the weir between July 17 and August 18 (Table 1). The first Chinook passed through the counting chamber on July 22. Fifty percent of the run had passed through the weir by August 6 and 90% by August 13. Sampling events were attempted each day and, when possible, at various times throughout the day to obtain a representative sample of the daily run. A total of 394 Chinook salmon (64% of the run) was live sampled

for age-sex-length data. Of these, 203 (52%) were female and 191 (48%) were male. All sampling data and scale cards were submitted to DFO, stock assessment upon completion of the weir operation.

#### **4. Chinook Salmon Sonar Enumeration on the Big Salmon River. Year 14**

The 2018 Big Salmon sonar project was successful in enumerating the Chinook salmon passing the station throughout the course of the run. No significant issues or problems were encountered with the sonar and related equipment. The project experienced one high water event but neither the weirs structures nor the sonar recording was compromised. A total of 5,053 targets identified as Chinook salmon were counted during the period of operation. Chinook salmon were observed on the first day of sonar operations on July 15. An expansion was used to interpolate the end of the run to August 28, using a log regression based on the daily counts of the previous 18 days. The interpolation resulted in a total final estimate of 5,159 Chinook salmon. Fifty percent of the run had passed the sonar by August 3 and 90% by August 15. The 2018 Chinook salmon estimate from the Big Salmon was slightly below (5%) the (2008–2017) average estimate of 5,422 fish. A total of 201 dead or moribund Chinook was recovered during the carcass pitch. Of the total, 128 (64%) fish were female and 73 (36%) fish were male. All sampling data and scale cards were submitted to DFO, stock assessment upon completion of the sonar operation.

#### **5. Pelly River Chinook Salmon Sonar Program**

On July 10, 2018 an ARIS Explorer 1200 and Explorer 1800 multi-beam sonar systems were deployed on the left and right downstream banks, respectively, of the Pelly River. Following initial setup and testing of the sonar systems, data was recorded continuously on both banks of the river from 00:00 hours on July 10 to 23:00 hours on August 25, 2018. A preliminary passage total of 9,491 upstream migrating Chinook salmon were counted during the period of operation for the 2018 Chinook salmon sonar program. A total of 43 hours of data (15 hours from the right bank and 28 hours from the left bank) were not recorded due to instances of temporary generator failures, equipment maintenance and updates, sonar reposition and movement, and file sizes being too large to open. Data for these outages will be interpolated and post-season data/run timing analysis will be completed for the final report.

The program created local employment, training opportunities, and offered approximately 7 weeks of continuous fish related work for two local technicians. The program provided in-season passage estimates to Selkirk First Nation, the community of Pelly Crossing and the Department of Fisheries and Oceans. Notable community interest and engagement was generated by creation and posting of daily updates on the SFN Pelly River Chinook Sonar Facebook page. The page has 124 followers and over 117 page likes.

#### **6. Upper Teslin River Watershed Chinook Radio Telemetry.**

The capture and tagging of Chinook salmon took place between July 28-30, August 3-8 and 13-18, 2018, through the use of set nets. Mesh sizes used included 6.75 and 7.5 inch; all nets were 100 feet in length with a net depth of approximately 10 feet. Set nets were deployed at various sites from Brooks Brook on Teslin Lake downstream to the area directly downstream of Johnson's Crossing on the Teslin River. Set nets were constantly monitored and checked regularly for fish in order to avoid mortalities. A stationary tower was deployed 15 km downstream of the tagging site to quantify dropouts of Chinook after radio-tag application. This tower consisted of an ATS R4500 receiver conducting a continuous stationary scan with two antennas to determine direction of travel for any tags that passed the tower.

A total of 60 Chinook salmon were radio tagged in the vicinity of Johnson's Crossing between July 27 and August 18, 2018. The Chinook tagged ranged in fork length from 75 to 104 cm with an average of 87 cm and median length of 85 cm. Of the tags applied, 65% of Chinook were male and 35% were female. During the aerial tracking flights in September 2018, 59 of the 60 tags applied were located. A large portion of the tagged Chinook dropped back into the Teslin River to spawn. In total, 47 of the tags (78%) were located downstream of their tagging location. The reason for these tag dropouts is not known and may include natural exploration of spawning areas and/or tagging induced stress. It is important to note that the vast majority of the dropout tags were relocated in areas which are known to contain spawning Chinook.

#### **7. Yukon River Canadian-Origin Juvenile Chinook Out-migrant Assessment. Year 4**

This was fourth year of juvenile Chinook salmon assessment on the Big Salmon River, Yukon Territory. Field operations occurred between May 18 and August 13, 2018. A total of 10,059 unmarked juvenile Chinook were captured using rotary screw trapping (2,308), gee trapping (5,330), beach seining (2,396), and fyke netting (25). Captures of age +1 juveniles were lower than 2017, but higher than the 2015-2016 seasons, with 1+ juveniles accounting for 14% of total captures. Visual implant elastomer (VIE) tags were applied to 8,244 juveniles prior to release and 789 tagged juveniles were recaptured, of which 39 were recaptured in the RST. A report to the Panel detailing the project results will be submitted in March 2018.

#### **8. Developing a Juvenile Stock-Recruitment Relationship for Yukon River Chinook Salmon.**

In 2018, as part of the first year of the current project, we successfully sampled the 7 streams that have been sampled intermittently since 1999. Conditions were less than ideal as heavy rains during the sampling interval resulted in high flows in our study streams. To overcome these high flows, sampling methodologies were adapted to match the stream conditions at the time of sampling. Overall, juvenile estimates were lower than most other years but the uncertainty in some of the estimates is due to low fish captures resulting from the high flows. Preliminary results support the concept of a limit, in terms of juvenile density, for these small streams and it appears results are consistent with other chinook salmon populations. Additional years of data will be valuable in characterizing this relationship for use in supporting stock-recruit analysis and other applications. The preliminary 2018 escapement is about 58,000 spawners and juvenile sampling in 2019 will provide an informative data point.

#### **9. Juvenile Chinook Out-Migration at the Yukon River Mouth.**

The objectives of this research are to:

- quantify juvenile Chinook salmon outmigration from ice-out through to the end of August,
- examine size, growth, diet, energetic condition and smolting stage in relation to environmental variables, and
- collect genetic samples to assess out-migrant origin.

Sampling occurred at 9 permanent stations on the three main lower Yukon River tributaries from May 25<sup>th</sup> through August 25<sup>th</sup>, 2018. Preliminary data indicates that ~ 780 juvenile Chinook were captured during the sampling period. Outmigration was highest during weeks 23 and 24 (between June 4<sup>th</sup> and 18<sup>th</sup>). Length and weight data, and genetic tissue samples, were collected from all captured Chinook. The salmon ranged in length from 67 mm to 123 mm. Length data showed the highest proportion of samples in the 90 – 100 mm size range. Chinook were subsampled by size and week, and a total of 300 Chinook

were selected to be processed for diet and energetic condition. Energetic analyses will be completed by the middle of December 2018, genetic analysis will be completed by January 2019, and diet analyses will be completed by the end of February, 2019.

A presentation will be made in person to the Panel on Weds Dec 12<sup>th</sup>.

#### **10. Michie Creek Salmon and Habitat Monitoring Project 2018. Year 20**

Field work associated with the Michie Creek Salmon Monitoring Project was again successfully completed in 2018. Three 2-day field trips were completed with access to the Michie Creek index area provided by aircraft. Temperature and water level data loggers were installed in the Spring with the intention to record throughout the Summer and Chinook spawning period. Some of the retrieved loggers failed to download data. Those that were problematic were sent to the manufacturer however this failed to resolve the problem. Despite these difficulties water temperatures were collected during the Chinook spawning window and in the Whitehorse Rapids Fish Ladder for the entire summer. Winter water temperatures for 2017/18 were also successfully collected. An additional temperature logger was installed in September to characterize winter water temperatures of Michie Creek for 2018/19.

Water was once again low this year with two cross channel beaver dams being located. One was situated near the lake outlet and was removed just prior the arrival of salmon. The other, just upstream of the Byng Creek confluence was not breached as it was determined that the structure did not pose a barrier to fish passage. Overall, migrating salmon were able to access the primary spawning area at the outlet of Michie Lake. The below average salmon run through the Whitehorse Rapids Fish Ladder (691) resulted in a low redd count and modest number of salmon escaping into Michie Creek. Crews counted 23 live fish and carcasses and more importantly only 18 redds. This is a dramatic decrease over the previous year. Crews also reinstalled a sonar receiver that was located along the shoreline of the creek just above the Byng Creek confluence. Additionally, 4 carcasses were also sampled during September which resulted in the recovery of 1 head with embedded coded wire tag that was a 5 year old male that originated from Michie Creek.

#### **11. Temperature monitoring of Yukon River Chinook Salmon spawning and migration habitats in Canada. Year 5.**

The spring of 2018 was delayed. There was a generally slower than normal increase in spring water temperatures. Water levels remained high into July in most rivers due the slow melt of upper altitude snow accumulations. A sustained period of high air temperatures in late July and early August elevated water temperatures during the final migration and spawning period for Chinook Salmon. Field work for this Project has been completed. In 2017/18 temperature data was captured for most stations. Exceptions include summer temperatures at the *Mcquesten River below Klondike Hwy* annual station due to equipment failure and the *Pelly River below Pelly Crossing* seasonal station during a period of low water in late summer. Data analysis is currently in process. The project will be completed as scheduled, with a report submission on- or before December 31, 2018. Data loggers were set at all annual stations in autumn 2018 and continue to monitor water temperatures.

## RESTORATION

### 12. Ta'an Kwäch'än Council - Fox Creek Salmon Restoration Project. Year 6

On March 31, 2018 there was a very unfortunate incident at the McIntyre Creek Hatchery where the shed containing the Heath Stacks and Incubation Trays was destroyed by fire. The 30,000 Chinook eggs slated for the Fox Creek project plus approximately 20,000 Chum eggs being reared by Vuntut Gwichin First Nation Government all perished in the fire. From this point forward, the incubation facility closed, all work by TKC staff at the hatchery ceased. However, the Yukon Energy Corporation graciously donated 6,000 fry from their Whitehorse Rapids Fish Hatchery operations to allow TKC to hold the annual fry release and carry-on with annual project activities. Jenna Duncan was contracted to insert coded wire tags and clip the adipose fins of these fry. Other TKC staff and citizens were hired to assist with these efforts.

TKC released approximately 6,500 Chinook salmon fry into Fox Creek on Sunday, June 17th, 2018. Approximately 6,000 of the fish released were those donated by Yukon Energy and the Whitehorse Rapids Fish Hatchery, and the other 500 fish were from the Stream to Sea Program. The Stream to Sea Program raises Chinook salmon in Yukon schools that are annually tagged and released with the Fox Creek fry.

We have confirmation of adult Chinook salmon returning to Fox Creek since 2013. In 2018 they were observed from August 6 to 27. Throughout this period a total of 29 salmon were observed and we assume these to be different individuals. The total numbers of adults observed at one time, at one location, were 11 on August 21, 2018.

### 13. Deadman Creek Chinook Salmon Restoration Project. Year 3.

The 2018 project built upon the 2016 and 2017 projects with many improvements from lessons learned throughout the two years of the project. Continued monitoring in 2018 included: water temperature monitoring in Deadman Creek and Morley River, juvenile Chinook monitoring in Deadman Creek (June, July and September) and Morley River (June and July), hydrometric monitoring in Deadman Creek, brood stock collection from Morley River and the subsequent egg planting in both Morley River and Deadman Creek. Wolman Pebble counts and spot velocities were also collected at each planting area in Deadman Creek and Morley River as well as on a small number of natural redds in Morley River. Success monitoring of all eggs planted is planned to continue over the winter and spring of 2018/2019 and at the time this report was prepared, only the egg hatching success from Morley River is available and therefore included here. Following the completion of additional success monitoring from January to June 2019, the project final report will be prepared during the summer/fall of 2019.



#### **14. Coded-Wire Tagging of Hatchery Origin Canadian-Origin Chinook Salmon Fry – 2018.**

The 2018 CWT program was successfully delivered. In total, 125,099 Chinook salmon fry were tagged, clipped and released at McClintock, Michie, Wolf and Fox Creeks. Despite the loss of the McIntyre Creek Salmon Incubation Facility in March 2018, approx.. 6,000 fry from the Whitehorse Rapids Hatchery were provided for release in Fox Creek. Final report in progress.

#### **15. Tay River Chinook Salmon Access Investigation.**

The primary objective of the 2018 Tay River Chinook access project was to investigate the presence or absence of Chinook Salmon in the Tay River system. To accomplish this two separate field surveys were conducted. From June 17 through June 22 a fish inventory survey was conducted at sites on the lower Tay river approximately 20 Km upstream from the mouth of the Pelly River. This work was done by two Metla biologists plus a technician from the Selkirk First Nation. The inventory methodology was specifically directed at determining the presence/absence of rearing juvenile Chinook salmon. The methods included gee trapping, beach seining and environmental DNA (eDNA). A total of approximately 350 juvenile fish were captured consisting of long nose suckers, grayling and pike. No juvenile Chinook were captured.



A second survey for adult Chinook spawning and another set of eDNA sampling was conducted on the upper Tay system on August 24. The survey was conducted by a Metla biologist and the SFN Fish and Wildlife officer. No adult Chinook were observed during the aerial survey.

Concurrently with the August survey a closer investigation of the suspected barrier (see photo) was conducted. Subjective examination suggests the identified chute is a probable barrier to migrating adult Chinook salmon. A DFO engineer will conduct an engineering pre-assessment for barrier modification based on the video and photos collected during the August survey.

Preliminary modelling of the data suggests the Tay River Chinook Salmon production would be in the range of 5 - 8 thousand.

#### **16. Assessing the fate of returning Upper Yukon River Chinook Salmon**

Chinook Salmon (*Oncorhynchus tshawytscha*) complete an awesome migration >3000 km in the upper Yukon River, passing one barrier in the process. The Whitehorse Hydro Plant (WHP) was constructed in 1958 and a fish ladder has been passing fish there since 1959. The primary spawning grounds upstream of the ladder are known, but straying salmon are occasionally observed in the vast Southern Lakes, and it is unclear whether additional spawning grounds exist. Ladder attraction, entrance, and fallback rates are unknown, as is the length of time that fish are delayed at the WHP. The Canadian Wildlife Federation is collaborating with the Yukon Energy Corporation, Carleton University, Carcross/Tagish First Nations and other partners to track Chinook Salmon movement and address these uncertainties. Acoustic transmitters were implanted in 138 fish between 2017 and 2018. Pilot studies were conducted to validate whether

capture and handling affected fish passage behaviour, and full fish passage research will begin in 2019. At least 90% of fish migrating past the fish ladder arrived at spawning sites and fallback after passing the dam was infrequent (7%), usually occurring after fish migrated several kilometers past the dam. Two fish (2%) migrated to unknown locations which may represent unknown spawning grounds.

### **17. Takhini River Chinook Salmon Restoration Investigation – 2018**

This was the second year of assessment to investigate the value of a Chinook stock monitoring and restoration plan for the Takhini River watershed. DFO conducted adult Chinook monitoring using sonar, and assessed the distribution and habitat of adult spawners and summer-rearing Chinook juveniles. The sonar site, located on the lower reaches of the Takhini River, operated with a single long-range ARIS unit between August 1 and September 5, 2018. An estimated 1,550 Chinook migrated upstream past the sonar site (preliminary). Test fishing resulted in the capture of 11 freshwater fish and 54 Chinook, of which 8 were tagged with acoustics tags for the Canadian Wildlife Federation (CRE-149-18). Three captured female Chinook were hatchery reared with clipped adipose fins. Fry trapping was conducted in the mainstem and tributaries between June and September, with assistance from First Nations to both fry trapping and adult gillnetting. Temperature loggers were deployed in the Takhini River and tributaries. DFO conducted an aerial survey of the Ibex River and Takhini River on August 27 and Sept 04, and counted 218, and 191 Chinook salmon (respectively). Sonar enumeration, aerial survey spawner density mapping, and habitat assessments will be included in the final report provided to the Panel.

### **18. Klondike River Chinook Salmon Stock Restoration Plan. Instream Incubation Trial.**

Klondike River Chinook have been impacted both during and post-Klondike Gold Rush due to large scale dredging and placer mining, as well as associated hydroelectric developments. With the intention of developing a project that could off-set the declines as well as maintain a cultural connection to the salmon, Tr'ondëk Hwëch'in worked with its citizens to prepare the 'Klondike River Chinook Salmon Stock Restoration Plan' for the Klondike River watershed; this plan was completed in 2018 (EDI and TH 2018). The restoration plan outlined the scale and scope of restoration initiatives that TH citizens support and clearly identified instream incubation trials as an area of interest to pursue.

A comprehensive monitoring program in 2018 included water temperature monitoring in the Klondike River, juvenile Chinook monitoring (June and July), aerial survey for spawning Chinook (July 22), broodstock collection from the Klondike River and the subsequent egg-planting (late July). Wolman pebble counts and spot velocities were also collected at each planting area. Success monitoring of all eggs planted will continue over the winter and spring of 2018/2019 however at the time this report was prepared, only cursory information of egg survival is available. Following the completion of additional success monitoring from January to June 2019, the project final report will be prepared during the summer/fall of 2019.

## **STEWARDSHIP**

### **19. Tr'ondëk Hwëch'in First Fish Youth Culture Camp. Year 18**

First Fish was another great success this past summer. We had nine Tr'ondëk Hwëch'in (TH) youth register for this culture camp and we had four Elders contribute to teaching and sharing traditional knowledge lessons, along with a number of TH staff and citizens to assist with various aspects of the programming. In total there were 28 people directly involved with this popular camp and day-to-day visits often saw

upwards of 60 people participating in the camp and fish processing activities. Our activities schedule this year was similar to past years and included Hän language activities, medicinal plant walk and talk, salmon nutrition talk, salmon biology and habitat teachings, bear safety, boat safety, traditional games and cooperative/ trust-building games, the Salmon Boy story and traditional teachings that come from the story and a river boat trip to visit an historic fish camp and see the operation of a fishwheel.

## **20. McIntyre Creek Salmon Incubation Project -MCSIP. Year 16. ON-HOLD**

The McIntyre Creek Salmon Incubation Project (MCSIP) is on hold pending recovery from the hatchery fire in March 2018.

## **21. Yukon River North Mainstem Stewardship. Year 13. COMPLETED.**

The primary goal of this project was to build community capacity to maintain and protect salmon and their habitats in the Dawson region through involvement and education of local youth. Two local high school students Emma Tom Tom and Jadaka Nagano were hired as Student Stewards and supervised by an experienced Field Supervisor Hans Algotsson. Hands-on training was provided to the youth as they carried out meaningful activities. These included restoring Chinook salmon to productive rearing habitats, salvaging juvenile Chinook from isolated pools, conducting juvenile Chinook salmon growth monitoring, investigating the timing and extent of juvenile Chinook salmon presence and abundance, collecting DNA samples, and learning about bio-engineering techniques. Project planning was informed by our record of past activities. The crew started field work on July 9 and ended on August 10, 2018. Weather and river conditions posed few challenges to the project. Planned activities were completed. The Public Day, an open invitation to local residents, was held at the Germaine Creek Avulsion Channel on August 10. The Student Stewards demonstrated the skills they had acquired and shared their knowledge with the two participants. The project was a success. We believe it will contribute significantly toward meeting our long term goal for the future of salmon in the Dawson area.

## **22. Salmon Stewardship Coordinators for Yukon Schools. Year 7**

A total of 18 Yukon schools are participating in Stream to Sea Program in 2018/19. Wild chinook or chum eggs have been seeded in 6 rural community schools (Ross River, Faro, Haines Junction, Destruction Bay, Beaver Creek and Teslin). This work was completed in August and October. Another 12 Whitehorse area school aquariums were set up and seeded with eyed chinook salmon eggs that were donated by the Whitehorse Rapids Fish Hatchery (Yukon Energy). What remains is the delivery of fish food, classroom presentations and dissections that typically occur during the late winter /early spring. Field trips in May and June of 2019 will conclude the project with the release of the resulting fry. This is the last year that Can-nic-a-nick Environmental will be managing this project. DFO has elected to administer the project in 2019/20 and have submitted a separate proposal for funding to the Yukon River Panel for 2019/20.



### **23. Whitehorse Rapids Fishway Stewardship. COMPLETED.**

The Fish ladder was officially open on June 1<sup>st</sup>. We were open for 5 hours a day from June 1<sup>st</sup> to June 23<sup>rd</sup>. We then switched to 10 hour days from June 24<sup>th</sup> to July 21<sup>st</sup> to accommodate the flow of visitors. We



extended our hours to 12 hour days from July 22<sup>nd</sup> to August 24<sup>th</sup> to be on site for more people and the Chinook salmon. We expected the salmon run to be below average this year. While we were getting regular updates on the salmon numbers along the run, us and the hatchery staff noted low numbers and a bit of a late run. Our season's total was 691 Chinook salmon. We have had 328 wild males, 135 hatchery males, 177 wild females and 51 hatchery females with a total of 463 males and 228 females. On August 31, a meeting was held at the fish ladder to discuss the rebuild of the facility and fish ladder. The fish ladder

is internationally recognized with a lot of tour companies and a new facility would better for providing tours. A few staff members from the attended and provided valuable input.

### **24. Selkirk Nation Fall Chum Utilization Project. Year 1. CANCELLED.**

This project was postponed in 2017 and was to have been rescheduled for 2018. However, staff shortages and changing priorities have resulted in the project being stood-down by the proponent.

### **25. Little Salmon Carmacks Juvenile Chinook Salmon Monitoring Program.**

No interim report provided.

### **26. Teslin Tlingit Salmon Steward.**

In mid-June, TTC hired a youth from the community to fill the Salmon Steward position. Throughout the summer, the Salmon Steward worked closely with the Renewable Resources Coordinator (RRC), environmental consultants and Yukon Government staff on fisheries work around Teslin. This is included the 2018 Deadman Creek Restoration and Enhancement Project, Upper Teslin Watershed Telemetry project and YG SPIN surveys. By participating in these projects the Salmon Steward gained the necessary experience and skills to work in a fisheries setting. Unfortunately, in late August the youth decided they wanted to pursue a different type of work and resigned from the position. Between August and September TTC reopened the position, and at the end of September hired another Salmon Steward. Since the start of October the new Salmon Steward participated in the last field days of the 2018 Deadman project, collected temperature loggers from around the Teslin Tlingit Traditional Territory, attended the Salmon Resiliency Conference, designed an interactive poster for the Salmon in the Classroom project and received their boating license and Wilderness First Aid certification. In mid-December, the Salmon Steward and other TTC representatives will travel to Anchorage to attend the Yukon River Panel meeting. The Salmon Steward is required to produce a report at the end of the meeting about their thoughts and experiences on international salmon management.

## COMMUNICATIONS

### **27. Salmon Know No Borders – 2018 Yukon River Exchange. Year 14. COMPLETED.**

The purpose was to provide an opportunity for building cross border understanding between Alaskans and Canadians living along the Yukon River who share the salmon resource. This project is funded by the Restoration and Enhancement Fund under the Yukon River Panel. The Yukon River Drainage Fisheries Association (YRDFA/US-Alaska) works with the Yukon Salmon Subcommittee (YSSC/Canada-Yukon) to organize, host, and report on each trip. There are usually 5-6 participants chosen and they embark on a week-long exchange; alternating traveling to each country from year to year. Five Alaskans traveled to communities along the Yukon River in Canada in 2017 and six Canadians traveled to the mouth of the Yukon River in Alaska this year.

The importance of the exchange goes farther than those who participate; it's about the Yukon River people coming together to learn and connect with each other in other venues and ways than at formal meetings. We all know and understand that it is the personal connections we build that help maintain a healthy working salmon/people system. These connections can grow to improve the greater understanding of all parts of the Yukon River fishery in both the U.S. and Canada.

### **28. Yukon River Summer Pre-Season Preparation Meeting. Year 9**

Scheduled for pre-season 2019.

### **29. Enhanced Education and Outreach – Salmonids in the Classroom**

This year, the Salmon in the Schools team has been focusing on developing an educator resource manual and building a web platform to host additional learning resources for educators across the Yukon. We are working alongside designers in development of a logo, brand, webspace and professional documents to enhance the work we did in the 2017 year. In 2018, we have been attending several community events (e.g. Kluane Lake Chum celebration, Yukon Salmon Resiliency Conference) providing resources, information, games, and activities related to salmon. Continuing from last year, we have also been attending Yukon schools, offering unique salmon programming and connecting with local students, Elders and educators to enhance salmon education across the territory.