



TRT Fisheries Department Program Summary & TAC	1-2	The Taku River Tlingit (TRT) Fisheries Department is preparing for our 2019 field season. We wanted to update everyone on the Fisheries Program and provide information on the status of the Taku salmon runs. We hope you enjoy the newsletter and have a great summer!
2019 AFS Stock Assessment Projects	3	
Northern Endowment Fund & Treaty	4	<b><i>TRT Fisheries Department Program Summary:</i></b> The core funding for TRT Fisheries Department comes from the Aboriginal Fisheries Strategy (AFS). This is Federal funding to support TRT involvement in salmon management on the Taku River. For 2019 we have been successful in expanding the scope of projects funded under the AFS program to include TRT involvement in: Tatsatua Sampling, the Coho test fishery and the Taku smolt project.
Kuthai Lake Access Improvement	5-6	
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Salmon runs from the 2018 season and forecasts for 2019	8	The Fisheries Department has also been successful at obtaining funding for several proposal-driven projects. These funds come from the Northern Endowment Fund, through the Pacific Salmon Commission.  The TRT Fisheries Department also receives some funding from the Taku Atlin Conservancy (TAC). More information on TRT Fisheries funding and projects is given on the following pages.

## ***Aboriginal Fisheries Strategy (AFS) Funding***

The following TRT Fisheries projects are funded through the AFS program:

### **AFS Core Funding (\$360,000):**

This funding is the primary funding to support the core TRTFN Fisheries program including: participation in: the Canyon Island Fish wheel project (done in cooperation with the Alaska Department of Fish and Game), Kuthai weir, King Salmon Lake weir, and Nakina weir projects. More on these projects on page 3.

### **Tatsatua sampling project (\$8,200)**

This supplemental funding under the AFS program will allow for one TRT Fisheries technician to be involved in Chinook salmon sampling on the Tatsatua River downstream of Tatsatua Lake this August.

### **Taku Smolt Sampling (\$6,084)**

This supplemental funding under the AFS program will allow for one TRT Fisheries technician to participate in the Coded Wire Tagging program conducted on the lower Taku River in April.

### **Taku Coho Test Fishery (\$13,754)**

This supplemental funding under the AFS program will allow for two TRT Fisheries technicians to be involved in the Coho salmon test fishery (dependent on escapement numbers). This work will occur in October.

**King Salmon Fisheries Cabin Renovations (\$20,000)** This supplemental funding under the AFS program will fund renovations and upgrades to the TRT Fisheries cabin at King Salmon Lake.

## ***Taku Atlin Conservancy Funding***

### **Taku Steelhead Assessment (\$10,000)**

This funding will help develop studies to assess the status of steelhead in the Taku drainage.

### **Salmon Resiliency project (\$69,500)**

This project is designed to assess current salmon management practices and to help incorporate traditional knowledge into the management regime. Here we are also looking into alternate options for escapement goals, and also gathering further information regarding the Chinook and chum salmon declines.





## ***2019 AFS Stock Assessment Projects***

The TRT will be running its AFS (Aboriginal Fisheries Strategy) program again this summer with sockeye weirs at King Salmon and Kuthai Lakes as well as a Chinook carcass weir on the Nakina River. The TRT Fisheries Department will again send a fisheries technician to Canyon Island to assist with the operation of the fish wheel. Last season we began counting sockeye salmon using underwater motion-activated video equipment. The advantage of using this equipment is that : 1.) it gives us a permanent record of fish moving through the weir that can be double-checked and 2.) it allows the fish to pass through the weir at any time (fish are never being held up, and don't need to be handled). The Fisheries Department will be using this equipment again for the 2019 season. The following are projects that the TRT has run for many years and will do so again this season.

**Kuthai Lake Weir:** This project erects a weir at the outlet of Kuthai Lake to record sockeye salmon entering the lake to spawn. The project starts on July 4th and runs until Sept 3rd. Kuthai Weir employs 2 Fisheries Technicians



**King Salmon Lake Weir:** This project erects a weir at the outlet of King Salmon Lake to record sockeye salmon entering the lake to spawn. The project starts on July 5th and runs until Sept 4th. King Salmon Weir employs 2 Fisheries Technicians

**Nakina Carcass Weir:** This project erects a weir across the Nakina River to try to sample 1000 chinook salmon carcasses for age (scales), length, sex and tags. The project starts on July 30th and ends August 26th and employs 2 Fisheries personnel.



**Canyon Island Fish wheel:** This project constructs a fish wheel to capture and tag salmon on the lower Taku River. The project starts in mid-April and runs until October. This project employs 1 TRT Fisheries Technician.



### ***Projects funded under the Northern Endowment Fund for 2019:***

The TRT successfully submitted proposals for several projects to be funded under the Northern Endowment Fund through the Pacific Salmon Commission:

**King Salmon Lake sockeye enhancement** ( \$36,448 ) will allow for a small egg take from sockeye at King Salmon Lake. The objective is to ‘bump up’ sockeye numbers in years of low escapement.

**Kuthai Lake access improvement** (\$48,960) will fund continued work on addressing sockeye access issues into Kuthai Lake (see page 5 and 6 of this newsletter).

**King Salmon Creek passage improvement** (\$24,088) will provide funds to assess a partial restriction to salmon access on King Salmon Creek.

**Video enumeration for sockeye into Kuthai and King Salmon Lakes** (\$44,533.) will provide for the purchase of 2 sets of video and associated power equipment.

### ***Update on the Pacific Salmon Treaty:***

Another 10 year term for the Transboundary chapter of the Pacific Salmon Treaty has been successfully negotiated with the updated arrangements starting this year. Some of the revised provisions include:

- Confirmation of conservation as the priority, with transparency in data sharing;
- Slightly increased Canadian sockeye harvest shares and access to sockeye in excess of spawning requirements;
- Review of the Taku sockeye escapement goal and assessment program;
- Simplified 50/50 Chinook harvest sharing and considerations for assessment during low years;
- An abundance-based harvest sharing arrangement for Coho salmon.



## *Kuthai Lake Access Improvement :*

The purpose of this project is to address the decline of sockeye salmon in Kuthai Lake since 2006 . Field assessments revealed that the decline in Kuthai sockeye is the result of access problems in the lower Silver Salmon River canyon: in years of too low water, salmon cannot make it upstream through the canyon to the lake. Another challenge for salmon trying to access Kuthai lake was the number of beaver dams in the Silver Salmon River.

In the summer of 2018 there was a virtual run failure into Kuthai with only 13 salmon making it into the lake. In the fall of 2018, a TRTFN Fisheries crew went into the Silver Salmon Canyon and widened a site above a falls to help facilitate salmon passage (see photos next page). These falls had been identified as the major problem for salmon trying to get upriver to Kuthai Lake. The TRTFN Fisheries Department will be returning to this site in the spring of 2019 to undertake more work aimed at improving access into Kuthai Lake.

Photo right: access to the site required rappelling down into the canyon

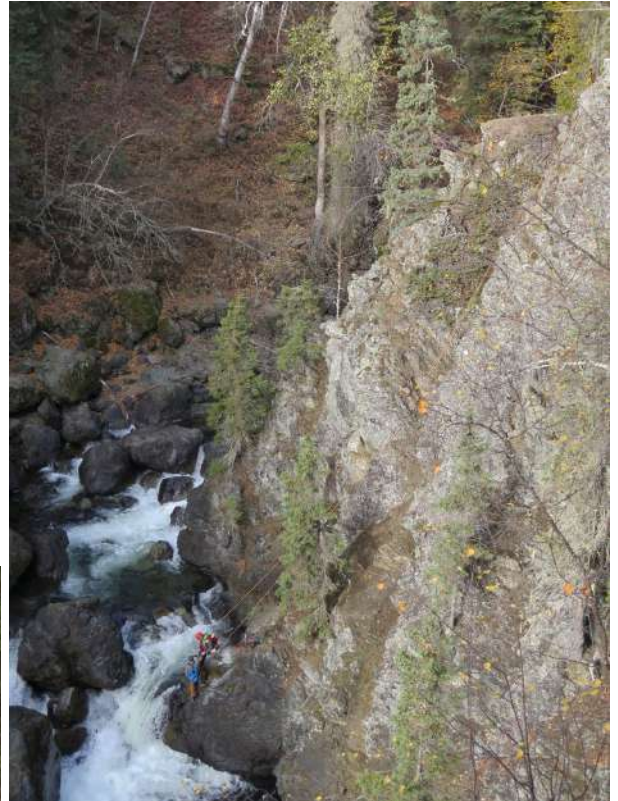


Photo left: drilling the rock to widen the jump





**Kuthai Access  
Improvement  
(continued)**

Photo left:  
Falls on the Silver Salmon River  
prior to widening

Photo below:  
Arrows indicate  
where the falls  
were widened





### **Nakina Weir Cabin Up-**

**grades:** The Nakina weir cabin was rebuilt in 2017 and completed in the summer of 2018 (see photo to right). Special thanks to Phil Williams and crew for the great work!



## ***Continuing Concerns with Chinook Stocks in 2019***

It has been over a decade since SE Alaska has seen decent chinook salmon production. Studies have shown that the recent downturn in Chinook production appears to be largely due to poor marine survival. Chinook are dying at higher than normal rates between the time juveniles migrate to the ocean, and before the resulting adults return to the river. In recent years marine survival for Chinook has been less than half of historical levels. The specific reasons for this reduced survival are unclear, but may include multiple factors.

As shown on page 8 of this newsletter, Chinook escapement (the number of salmon that make it to their spawning areas) predictions for 2019 on the Taku are much lower than average. As a result there will be no commercial fishery for Canada or the U.S. for the 2019 season. There will also be no retention of any Chinook in the sport fishery. The issues with Chinook are not just in the Taku and are a larger regional issue.



## ***Summary of 2018 Taku River Salmon Run:***

The following tables summarize last season's 2018 Taku River salmon run :

2018 Taku salmon escapement\* :

	Chinook (large)	Sockeye	Coho
2018	7,353	164,100	51,608

\* The escapement is the number of fish that 'escape' to make it back to the spawning grounds

2018 Taku River Canadian commercial catch:

	Chinook (large)	Sockeye	Coho
2018	0	17,974	9,503
Average	2,584	22,110	8,632

## ***Taku River Salmon Run Outlook 2019***

Here are the forecasts for the 2019 Taku River salmon runs:

<b>Species</b>	<b>Run Forecast</b>	<b>Average run size (over last 10 years)</b>	<b>Escapement Goal (range)</b>
Chinook	9,050	20,000	19,000– 36,000
Sockeye	154,000	182,000	71,000 – 80,000
Coho	73,000	116,000	50,000-90,000

***Thank You!***

Thanks for taking the time to read up on what the TRT Fisheries Department is up to these days. If you have any questions, concerns or information you would like to see presented in our next newsletter please don't hesitate to contact us:

Jason Williams (Fisheries Supervisor):

250-651-7927 extension 223

Mark Connor (Fisheries Coordinator):

250-651-7900 extension 320



***Happy Fishing!***