



# TNG FISHERIES

*T̓silhqot'in National Government • Fisheries Department Bulletin*



## Fisheries are vitally important to TNG communities.

T̓silhqot'in Leadership, TNG senior staff, and the TNG Fisheries Department are all fighting hard for salmon and fisheries. We've met directly with senior DFO staff to express serious concerns about declining salmon, to remind Canada of their commitments under the Gwets'en Nilt'i Pathway Agreement, and to express the urgent need for DFO to strengthen management measures and recovery efforts for salmon.

We're also working on a number of projects and programs to support the protection, recovery, and rebuilding of all salmon species and T̓silhqot'in fisheries, including stock assessment, test fisheries, water monitoring, and emergency enhancement activities including work towards building a conservation hatchery.

The past 2 years of salmon fishery closures due to extreme conservation concerns have meant hardship for our communities. We're now in discussions with DFO about prioritizing harvest opportunities in 2021; this will be brought to T̓silhqot'in Chiefs for discussion and decision making, and the Fisheries team will provide technical information to support.

**Stay tuned for more information through our weekly in-season fisheries bulletins and update calls, every Wednesday from mid-July to the end of August.**

**Here's some news on what the Fisheries Department has been up to, and what's coming up this season.**

Photo: T̓silhqox Ts'eman (Chilko sockeye) smolt fence operating with a TNG and DFO crew that includes TNG Fisheries Technicians Winston Bambrick and Gerald William.

## FISHERIES TEAM

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With support from: **Andrea Sterling**, Biologist, Water Quality and Quantity Program, Conservation Hatchery Feasibility, Emergency Enhancement; **John Hagen**, Conservation Biologist, Chilcotin Steelhead; **Gottfried Pestal**, Quantitative Biologist, Biological Benchmarks; **Aimee Arsenault**, Communications Lead.

# Pre-Season Assessment (2021):

## Jaš (Chinook), Ts'eman (Sockeye), and Dandzex (Pink)

### Jaš (Chinook):

We've started receiving early-season assessment data for Jaš (Chinook) populations returning to the ʔElhdaqox (Fraser River), and in particular for those upstream from Big Bar. While last year's early-season estimate (2020) was the lowest on record, unfortunately 2021 isn't looking much better, with the second-lowest recorded estimate.

Jaš numbers returning to the Tšilhqox (Chilcotin) watershed and migrating through the ʔElhdaqox (Fraser River) into the watershed (including Quesnel River Jaš) are not yet confirmed, but we'll be assessing the status throughout the in-season. The good news is that we have confirmed Jaš passage through the natural passage fishway at Big Bar at current water levels, and swimming past the Churn Creek assessment station.

Jaš is a key conservation concern, particularly the Chežqox (Little Chilcotin) run. Based on low (parent) brood escapement in 2016-17 and low ocean productivity in 2019-20, we expected low Jaš returns in 2021. The TNG Fisheries team will be doing stock assessment for returning Jaš starting in August.

### Ts'eman (Sockeye):

In-season information on Ts'eman (sockeye) will start coming out in mid-July, which we'll report in our weekly in-season fisheries bulletins. The TNG Fisheries Department will also begin stock assessment for returning Ts'eman in mid-August.

The TNG Fisheries Department has recently received information about Tšilhqox Ts'eman (Chilko sockeye) bycatch in the Alaska fishery in 2019 and 2020. TNG Fisheries considers this to be a serious issue leading into the 2021 season, and we will be working with Tšilhqot'in Leadership and senior staff on this issue in the coming weeks.

### Dandzex (Pink):

2021 is a Dandzex (pink salmon) year, which may provide fishing opportunities for communities while Jaš and Ts'eman numbers are low.

As 2021 shapes up to be another difficult year for salmon populations, our team is grateful for strong support from Leadership in these last few years.

## Tšilhqox Ts'eman (Chilko Sockeye) 2021 Forecast

DFO's sockeye forecasts are presented as probability levels (probability that the run size will return at or below the estimate). At the mid-point of the forecast distribution (50%), there is a 1 in 2 chance that the return will fall above or below the specified forecast value based on historical data.

**25% level: 142,000 • 50% level: 311,000 • 75% level: 677,000**

This is a low forecast, continuing the trend we saw in 2019 and 2020. 2018 was the last year that had closer to normal returns.

## In-Season Fisheries Bulletins and Calls: Wednesday afternoons from mid-July to the end of August

The TNG Fisheries Department collects, receives and analyzes in-season salmon and fisheries information on a weekly basis from our own programs, and from DFO and the Pacific Salmon Commission. We'll share weekly in-season fisheries bulletins and host weekly update Zoom calls on **Wednesday afternoons** from July 14th to the end of August to keep folks up to date on in-season fisheries information. See Zoom link and dial-in info on the next page.

Although TNG Fisheries provides information and works on many aspects of salmon returning to T̓silhqot'in Territory and other parts of the upper Fraser, decisions about 2021 community fisheries openings and closures are made by T̓silhqot'in Leadership, and also by DFO. Fisheries opening and closure notices are shared broadly with communities by TNG central communications.



## Salmon Hatchery and Emergency Enhancement

TNG meets regularly with the Upper Fraser Fisheries Conservation Alliance (UFFCA), DFO, and other First Nations to plan for 2021 Ja̓s̓ (Chinook) and Ts'eman (sockeye) emergency enhancement to support the recovery and rebuilding of stocks impacted by the Big Bar Landslide. This summer we'll be doing emergency enhancement for Gwedes Che̓qox Ja̓s̓ (Upper Chilcotin Chinook) and Dasiqox Ts'eman (Taseko Yohetta sockeye).

TNG is beginning an emergency enhancement and conservation hatchery program that we plan to launch in 2022. The plan was developed in collaboration with T̓silhqot'in Chiefs, and was introduced to communities during the TNG citizen engagement sessions in May. The Chiefs have identified this as a key priority for rebuilding critically endangered T̓silhqot'in salmon stocks, to protect wild salmon biodiversity in the Territory and to ensure that future generations also have the full ability to exercise their right to fish. We are currently looking for funding to start the work.



## WEDNESDAYS

mid-July to end of August

1:00 to 2:00 PM

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### Dates:

July 14, 2021

July 21, 2021

July 28, 2021

August 4, 2021

August 11, 2021

August 18, 2021

August 25, 2021

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T̓silhqot'in National Government

## WEEKLY IN-SEASON FISHERIES UPDATES

Wednesdays 1PM to 2PM

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### ZOOM MEETING LINK:

[fisheries.live/tng2021](https://fisheries.live/tng2021)

Meeting ID: 869 9877 1924

Passcode: 830690

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### OR JOIN BY PHONE:

Toll Free: 1-855-703-8985

Meeting ID: 869 9877 1924

Passcode: 830690

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These calls are to share fisheries information with T̓silhqot'in Chiefs, Councils, TNG and community staff, and T̓silhqot'in members, including Elders. We'll present on salmon populations and returns, fishing opportunities, and TNG Fisheries Dept activities.

**For questions please contact**

**TNG Fisheries Manager Randy Billyboy**

[rbillyboy@tsilhqotin.ca](mailto:rbillyboy@tsilhqotin.ca) / 250-392-3918



### QR Code: Zoom link

Download the Zoom link on your smart device and scan with your camera to join

# TNG Fisheries Field Projects

It's a difficult time for salmon, but TNG is proactive in advancing Nation-wide rebuilding objectives and priorities. Field work season began in April and runs until November, so we've been busy for the last few months running projects and programs to support salmon and watershed monitoring, assessment, and rebuilding.

## Water Quality and Quantity (WQQ) Monitoring Program:

The WQQ program was identified by TNG Leadership as a priority and is part of the 5-year Fisheries Action Plan. This program is a collaborative effort between TNG Fisheries and the TNG Rangers.

Spring was focused on site selection and training for new monitoring stations. TNG Fisheries Department staff and T̓silhqot'in Leadership worked together to select monitoring locations based on:

- Nation-wide interests and objectives;
- critical salmon nursery areas in the T̓silhqox (Chilko), Dasiqox (Taseko), and Che̓qox (Chilcotin) river systems;
- existing stations operated by government agencies such as Environment Canada, Fisheries and Oceans Canada, and the Water Survey of Canada, which provide complementary information for more comprehensive monitoring (e.g. the Marguerite Station on the ̓Elhdaqox [Fraser River] near ̓Esdilagh).

In July we'll start working on station installations, and monitoring will be active through the fall. We look forward to bringing folks out for site visits to see the WQQ monitoring stations in action once they're up and running!

*This program is supported through the Healthy Watersheds Initiative, delivered by the Real Estate Foundation of BC and Watersheds BC, with financial support from the Province of BC.*

**For more information please visit  
[www.tsilhqotin.ca/fisheries/water-monitoring](http://www.tsilhqotin.ca/fisheries/water-monitoring)**

Photos, from top: Acoustic Doppler Current Profiler measuring stream discharge in the Upper Chilcotin River / TNG Fisheries Coordinator Leonard English on the Chilanko River / TNG Fisheries Technician Winston Bambrick on the Lower Chilcotin / Xeni Gwet'in Ranger Bruce Lulua at Nemiah Creek.



## Field Projects - Spring 2021

### **T̕ilhqox and Lower Che̕qox Ja̕ (Chilko and Lower Chilcotin Chinook) Coded Wire Tag (CWT) Program:**

The CWT program is important to our science work because it allows us to tag juvenile Ja̕ (Chinook) and track where they go in the ocean, how many are harvested in marine and river fisheries, and their overall survival before returning to the river to spawn in 2023 and 2024. We successfully tagged smolt juvenile Ja̕ releases in April to support this program.

We are also working on the Lower Chilcotin in 2021 to develop a companion CWT program for these Chinook.

### **Tislagh (Steelhead) Counts:**

Helicopter flights over the T̕ilhqox (Chilko) River and ground surveys in Elkin Creek were carried out in May and June to count Tislagh spawners. Unfortunately, this spring's spawner count was the lowest on record. In the fall and winter, we'll do genetics work to learn about Tislagh interactions with resident rainbow trout—the same species, but with a different life history. We also hope to tag adult Tislagh to learn more about their upstream migration to their spawning grounds.

### **T̕ilhqox Ts'eman (Chilko sockeye) Smolt Project:**

This project is a collaboration between TNG Fisheries and DFO to count migrating juvenile Ts'eman (sockeye) in the spring. We tested a new SONAR system that can be used in place of the fish fence when water levels are too high for the fence. The good news is that final count at the end of May was 17.2 million smolts—more than the initial forecast estimate of 10 to 15 million! These smolts are expected to return in 2023.

Photos, from top: T̕ilhqox Ts'eman (Chilko sockeye) smolt fence operating with a TNG and DFO crew that includes TNG Fisheries Technicians Winston Bambrick and Gerald William / T̕ilhqox Ja̕ (Chilko Chinook) Coded Wire Tag (CWT) smolt release on April 14, 2021 (Henry's Crossing). 30,000 tagged Ja̕ (chinook) smolts were released. We'll track where they go in the ocean, how many are harvested, and their overall survival.



# Field Projects - Summer and Fall 2021

**Che̱qox (Chilcotin) River SONAR assessment and test fishery:** TNG Fisheries will assess Ts'eman (sockeye) and Ja̱ (Chinook) migration into the Che̱qox (Chilcotin), Ṯilhqox (Chilko) and Dasiqox (Taseko) Rivers in July and August.

**Dasiqox (Taseko) River SONAR Project:** TNG Fisheries, with support from the TNG Rangers, and in collaboration with DFO stock assessment will monitor returning Dasiqox Ts'eman (Taseko sockeye) and Ja̱ (Chinook) via SONAR as they migrate to their spawning beds in August.

**TNG FISHERIES CATCH MONITORING: We're hiring for Catch Monitors and a Catch Monitoring Coordinator! If you're interested or have questions, please contact Fisheries Field Coordinator Leonard English at [leonard@tsilhqotin.ca](mailto:leonard@tsilhqotin.ca).**

The catch monitoring program runs from July to September at the following locations: *Farewell; Junction; Sheep Creek; Alexandria West Side; Siwash Bridge; Roving - between Stone and Siwash; Henry's Crossing*

## Other upcoming field projects:

### August-September:

- Helicopter counts of Che̱qox (Little Chilcotin), Elkin and Ṯilhqox (Chilko) Ts'eman (sockeye) and Ja̱ (Chinook)
- Dasiqox (Taseko) DIDSON
- Ṯilhqox Ja̱ (Chilko Chinook) - mark and recapture
- Ṯilhqox Ts'eman (Chilko sockeye) SONAR counts
- Ṯilhqox Ts'eman (Chilko sockeye) SONAR counts

### September-October:

- Ṯilhqox Biny (Chilko Lake) Adult Deadpitch

### November:

- Ṯilhqox Ts'eman Dalkw'ish (Chilko coho salmon) helicopter counts (November)

*Sechanalyagh!*

*Photos: Tislagh (steelhead) aerial surveys by helicopter.*



**For questions about the TNG Fisheries Department, please contact Fisheries Manager Randy Billyboy:  
Email: [rbillyboy@tsilhqotin.ca](mailto:rbillyboy@tsilhqotin.ca)  
Tel: 250-392-3918**