

TNG Weekly Salmon Fisheries Season Update – Week of Sept.7, 2020

Providing the latest information important to Tŝilhqot'in fish and fishing activities

Hello all! The TNG Fisheries Department is in the middle of the salmon return season for 2020. By now, most people are aware this is another very tough year for salmon returns to the Fraser River, Tŝilhqot'in fisheries and spawning grounds. This is an unfortunate situation, and it has been "all hands on deck" for the TNG Fisheries Department to focus our field work, data analysis and communications to support Tŝilhqot'in leadership during this difficult fishing season. The salmon return is so low in 2020, Tŝilhqot'in leadership issued a temporary fisheries closure notice in mid-August in order to allow as many salmon to return to the spawning grounds as possible.

Fortunately, the TNG Fisheries Team has used the experiences from 2019 to prepare for the challenges of the 2020 salmon return. Due to the very low anticipated returns of Chinook and sockeye this year, the TNG team has implemented new field projects and communications that include:

- 1. Additional **TNG-led monitoring field projects** to collect extensive direct information on Chinook and sockeye in the Tsilhqot'in Territory, to inform Leadership's in-season decision making. New activities include a roving sonar, non-retention test fishery and site visits.
- 2. **Weekly updates to Tŝilhqot'in leadership** and TNG senior management throughout the season fishing season (weekly calls, newsletters) to support decision making.
- 3. **Emergency hatchery enhancement measures** to increase the number of fry/smolts produced from returning spawners to avoid extirpation (loss of population in the future) due to very low returns.





Pic 1. (left) – our intrepid biologist Pete Nicklin, counting fish and looking scary!

Pic 2. (right) – Michelle, Pete and Randy – our virtual team!

Over the last week, key field activities have been **helicopter flights (data collection)** and **emergency hatchery enhancement activities** – these are described in detail, below.

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WHAT PETE HAS SEEN AND LEARNED FROM THE AIR THIS WEEK

Pete Nicklin, TNG fisheries biologist, has flown Elkin and Chilko systems this week, to count Chinook and presence and distribution of sockeye.

CHINOOK:

- Continued monitoring data has confirmed very low returns of Chinook, compared ot the parent year.
- There is confirmation of good passage of Elkin and Chilko Chinook past Big Bar, but at very low total numbers. Chinook have now moved into their spawning habitat, which are at highest numbers at the Lingfield dunes.





Pic 3. (left) – Henry's crossing on Sunday – no Chinook holding (as observed previous week)
Pic 4. (right) – Outlet of Chilko lake, head of Chliko River, north of the narrows, Sept.6. Small group of Chilko lake sockeye, around 50. Very low spawner number compared to typical year.

SOCKEYE:

- Sockeye were delayed by high waters in the Fraser, but when water dropped, have had good passage past Big Bar, but at very low numbers. Very few "white heads" observed this year, indicating less impact from Big Bar than last year.
- Sockeye are holding in small groups and are preparing to spawn over the next couple of weeks. "Seen in clumps, not ribbons", and using far less spawning habitat than is available confirming a very low return this year.

Continued site visits by Randy Billyboy and visual reports from catch monitors support these observations, with no salmon observed at Farewell on site visits this last weekend. All information collected to-date and directly observed by TNG staff confirms that Chinook and sockeye have returned at the lowest levels on record and are of very high conservation concern.

MONITORING - MOVING FORWARD

- Flights are ongoing Pete will continue to fly regularly over the next couple weeks and will
 provide further updates.
- The TNG fisheries team continues to conduct core annual programs, that include:
 - Site monitoring: observation at key fishing sites; and
 - Annual enumeration programs for Chinook and sockeye (helicopter flights, deadpitch, mark and recapture) and coho flights.
- Our field monitoring work will continue into November, to capture all salmon runs, before we get back to our desks and start analyzing the data for post-season analysis.





Pic 5: Confluence of little Chilcotin and Chilko (Pete's flight Sept.2)

Pic 6: Lower Chilcotin Sonar (DFO and TNG) that is monitoring Chinook and soon, coho (Sept.2 flight)

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EMERGENCY HATCHERY WORK – NEW AND A KEY CONSERVATION PRIORITY!

TNG's key focus this year is on <u>emergency hatchery enhancement activities</u> to increase the number of fry/smolts produced from returning spawners to avoid extirpation (loss of population in the future) of very vulnerable stocks, that include Lower Chilcotin Chinook, Chilko Chinook, and Taseko/Yohetta sockeye.

- TNG (Gerald, Winston and Leonard) and DFO conducted Lower Chilcotin Chinook brood (eggs and milt) collection at spawning grounds last week. Chinook spawned very soon after arriving to spawning grounds, and less fish were available for brood collection than had been hoped for – with 2 females and 1 male caught. Eggs will be fertilized and raised at the hatchery in Vanderhoof, to be released as fry/smolts back to spawning grounds.
- This week, TNG and DFO will conduct brood collection for **Chilko Chinook**, which have returned at record low numbers.
- TNG is working with DFO to conduct brood collection for **Taskeko/Yohetta sockeye**, starting Sunday.





Pic 7. Leonard, Winston and Gerald handling nets with DFO to catch spawning Chinook, Lower Chilcotin Pic 8. (right) – Gerald William with Leonard English and Winston Bambrick, conducting emergency brood collection for hatchery (Lower Chilcotin, last week).

We'd like to end with a huge shout-out to our awesome Fisheries Coordinator, Leonard English, our invaluable and experienced fisheries technicians, Gerald William and Winston Bambrick, Paul Grinder and the TNG Rangers for their direct support in fisheries monitoring and research!

For further information, please contact Randy Billyboy, Fisheries Manager, at the Tŝilhqot'in National Government – 250 392 3918, ext.113.

Sechenalyagh from Randy, Pete and Michelle!



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