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# **Advisory Announcement**

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# 2021 Yukon River Salmon Summer Fishery Announcement #15 Summer Update # 6, Yukon Area Salmon Fishery

Districts Affected: Yukon Area

The Chinook salmon run is likely more than 90% complete in the lower Yukon. The drainagewide Chinook salmon run is projected to be at the lower end of the forecast range and is the third smallest since 1995.

The second stratum of genetic samples (June 23 – July 6) at the Pilot Station sonar indicated 56% of that group were of Canadian-origin Chinook salmon. While the second group of genetic samples had a higher-than-average percent of Canadian-origin fish, this indicated a lower-than-average percentage for Alaskan stocks. The drainage-wide run size is so small that escapement goals may not be met in in many tributaries. If there is a harvestable surplus on the Canadian-origin Chinook salmon run above what is needed to meet border objectives, this won't be determined with much certainty until we have seen more passage at Eagle sonar.

We are well past the typical third quarter point of the summer chum run. The cumulative Pilot Station sonar count for summer chum salmon is the lowest on record for this date. A run size of at least 500,000 summer chum salmon is needed to meet the drainagewide escapement goal and as of July 11, less than ¼ of that number has been counted at Pilot Station sonar.

Most escapement projects are showing returns that are well below average for this date. To protect the spawning escapements of Chinook and summer chum salmon, fishing will remain restricted in all areas of the Yukon River drainage at this time.

The inseason salmon management teleconferences hosted by the Yukon River Drainage Fisheries Association are held every Tuesday, at 1:00 p.m. To participate, call (800) 315-6338, and enter code: YUKON# (98566#).

## **Summer Assessment Projects**

All information is current through July 11.

## Lower Yukon Test Fishery (LYTF)/ ADF&G and YDFDA

Operations for 2021 have been altered compared to prior years. The Middle Mouth set gillnet site is not being operated, in order to reduce Chinook salmon mortalities. However, drift gillnet operations using 8.25-inch mesh have been added this season to obtain Chinook salmon catch per unit effort (CPUE) data from that location. In the South Mouth at Big Eddy, set gillnet operations for Chinook salmon and drift gillnet operations for summer chum and Chinook salmon are being operated the same as they were in past years. The Big Eddy Chinook salmon drift CPUE values can be compared to historical averages. The set net data from Big Eddy should not be compared to historical data because it does not include any Middle Mouth set net data this season; however, comparison of day-to-day CPUE data from this site should still give an indication of large groups of fish entering the river.

Chinook salmon test fish operations began early enough to evaluate the beginning part of the run, and the project has been running smoothly. The Big Eddy Chinook salmon set gillnet site began operations on June 3, and the cumulative CPUE is 29.82.

Chinook salmon drift gillnet sites at Big Eddy and Middle Mouth were operational on May 22 and June 5, respectively. The Big Eddy cumulative Chinook salmon CPUE in the 8.25-inch drift gillnet is 43.50, which is below the historic average of 388.51. The Middle Mouth cumulative Chinook salmon CPUE in the 8.25-inch drift gillnet is 69.85, and the combined Chinook salmon drift CPUE is 64.08.

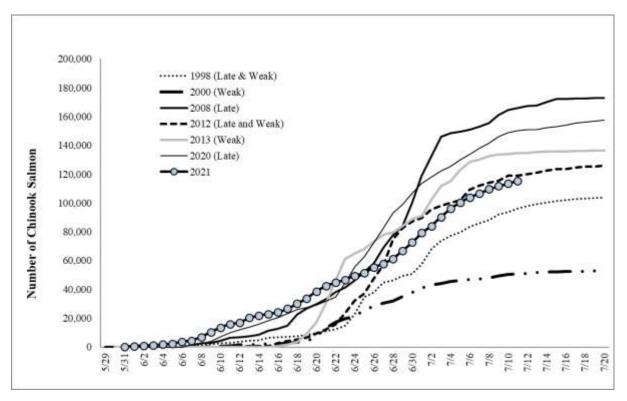
Summer chum salmon drift gillnet sites at Big Eddy and Middle Mouth were operational on May 25 and June 5, respectively. The cumulative CPUE is 181.85., which is well below the historical median of 7,086.00.

Efforts are being made to reduce Chinook salmon mortality in the LYTF and distribute test fish catches to community members. Any Chinook salmon healthy enough will be released alive from the test nets. Injured salmon and mortalities will be distributed to community members by Tribal councils or on a first come first-served basis from a public dock.

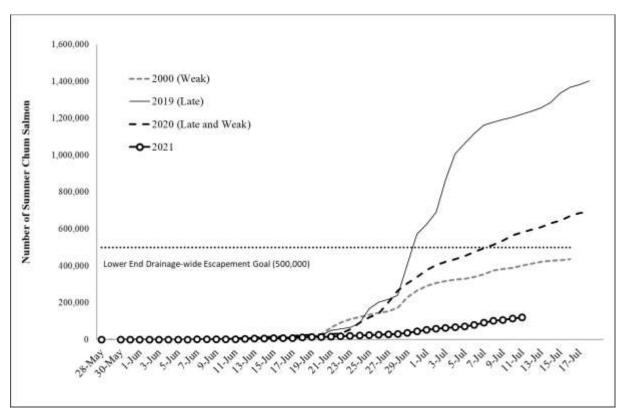
LYTF operations for summer season will conclude July 15.

## Sonar Project near Pilot Station/ ADF&G

The Pilot Station sonar project began with a partial count on May 31 and full operations on June 1. Sonar and test fishing operations have been proceeding as planned. Water levels are slowly going down with minimal debris. Chinook salmon passage is estimated to be  $115,444 \pm 10,031$  fish (90% Confidence Interval), which is below the historical cumulative average of 139,008 fish for late run timing years. Summer chum salmon passage is estimated to be  $121,185 \pm 12,293$  fish (90% Confidence Interval), which is well below the historical cumulative median of 1.4 million fish for late run timing years. Starting July 19, chum will be considered to be fall chum salmon at the sonar (though it will continue to be a mixture of summer and fall chum).



**Figure 1.** 2021 Cumulative passage of Chinook salmon at the Pilot Station sonar compared to late and/or weak years.



**Figure 2.** Cumulative 2021 summer chum salmon passage (black line with open circles) at the Pilot Station sonar compared to late and/or weak years. The horizontal dotted line represents the lower bound of the drainage-wide escapement goal for summer chum salmon. In 2000, summer chum salmon passage at Pilot Station sonar (dashed gray line) was under 450,000 fish and one of the weakest runs on record.

## East Fork Andreafsky River Weir / USFWS

The East Fork Andreafsky River weir began counting on June 18. Cumulative passage is 67 Chinook salmon, which is well below the average of 2,364 fish for this date; and 463 summer chum salmon, which is well below the median of 42,736 fish for this date. The weir experienced some flooding and may not have been fish tight from June 9 – June 11; interpolations for missed counts may be needed post season.

## Anvik River Sonar Project / ADF&G

The sonar began counting on June 15. Cumulative passage is 5,658 summer chum salmon, which is well below the median cumulative passage of 281,550 fish for this date.

## Henshaw Creek Weir / TCC

Counts began at the weir on June 29. Cumulative passage is 30 Chinook salmon, which is below the average of 240 fish for this date; and 279 summer chum salmon, which is well below the median cumulative passage of 17,697 fish for this date.

## Chena River Tower/Sonar (ADF&G)

Counts began on June 24. Cumulative passage is 491 Chinook salmon, which is below the average of 960 fish for this date; and 54 summer chum salmon, which is similar to the median cumulative passage of 50 fish for this date. Water conditions are low and with good visibility.

## Salcha Tower (ADF&G)

Counts began on June 30. Cumulative passage is 704 Chinook salmon, which is below the average of 1,004 fish for this date; and 27 summer chum salmon, which is similar to the median cumulative passage of 23 fish for this date. Water conditions are low and with good visibility.

## Eagle Sonar (ADF&G)

Operations began on June 28. Cumulative passage is 2,843 Chinook salmon, which is below the average of 3,823 fish for this date. The Interim Management Escapement Goal for Canadian-origin Chinook salmon is 42,500-55,000 fish. The goal is assessed post-season using the Eagle sonar count minus the estimated U.S. and Canadian harvest of Chinook salmon above the sonar.

## Teedriinjik (Chandalar) Sonar (USFWS)

Operations will begin later this season when fish arrive in the area.

#### **Stock Identification**

Genetic mixed stock analysis (MSA) on the early group and first pulse of Chinook salmon (Stratum 1, sampled from the Pilot Station sonar test fishery May 31–June 22) indicated that  $60\% \pm 7\%$  (90% Confidence Interval) of this group of fish were of Canadian-origin. The second pulse (Stratum 2, June 23–July 6) had  $56\% \pm 6\%$  (90% Confidence Interval) Canadian-origin fish. Together, these results indicate that much of the run so far has had a strong Canadian stock component.

## Age, Sex, and Length Composition

The age composition of 232 Chinook salmon sampled from the drift gillnets in the Pilot Station test fishery through June 22 was 2% age-4, 51% age-5, 41% age-6 and 6% age-7 fish. The percentage of age-6 and age-7 fish and the percentage of females (51%) were above average. Chinook salmon within each age class were smaller than average, with the exception of age-4 fish. However, the average length of 757 mm across all age classes is larger than the recent 10-year average length of 737 mm because of the above average proportion of age-6 and age-7 fish increasing the overall average length.

The age composition of 97 summer chum salmon sampled from the drift gillnets in the LYTF project through July 1 was 81% age-4 and 13% age-5 fish. This compares to an average of 47% age-4 and 50% age-5 summer chum salmon. The age-4 fish in the samples averaged 539 mm and age-5 are 567 mm which are both record small when compared to average (1981–2020). Female summer chum salmon are also extremely low at 45% compared to a historical average (1983–2020) of 57%.

## **Fall Assessment Projects**

## Lower Yukon River Cooperative Fall Drift Test Fishing / ADF&G, YDFDA

The project begins July 16 at Emmonak when the gear switches from 5.5-inch mesh to 6-inch mesh targeting fall chum and coho salmon.

## Mountain Village Drift Test Fishing / Asacarsarmiut Tribal Council

The fall season project will begin July 18 at Mountain Village.

## Sonar Project near Pilot Station / ADF&G

The sonar project near Pilot Station will transition to fall season counts on July 19.

## **Fall Season Management Strategy:**

The 2021 fall chum salmon run size is anticipated to be very poor, similar to this season's summer chum salmon run which is the lowest on record. The fall chum salmon preseason projection, based on the historical relationship between summer chum salmon and fall chum salmon run sizes, is less than the lower bound of the drainagewide

escapement goal of 300,000–600,000 fish. According to the Yukon River Drainage Fall Chum Salmon Management Plan, the preseason projection does not meet the threshold of 300,000 fish needed to allow subsistence, personal use or commercial fishing. With this low run size, it is unlikely escapement and treaty objectives will be met. Therefore, subsistence fishing for salmon will remain closed as the fall season begins, by regulation, in District 1 on July 16. The remaining districts will transition to fall season management once the fall chum salmon reach those areas. Fishermen should standby for announcements later this week. The department will monitor the fall chum salmon run beginning July 16 in the Lower Yukon (see fall season assessment project section).

## **Current Subsistence Management Actions**

Subsistence salmon fishing is closed to protect Chinook and chum salmon as they migrate to their spawning grounds. The opportunity to harvest non-salmon with 4-inch or smaller mesh gillnets is available during salmon closures; however, 4-inch or smaller mesh gillnets are restricted to 60 feet or shorter length. While any salmon, including pink salmon, may be retained in this gear if caught, this gear should be fished in areas where Chinook and chum salmon are not abundant. There is no stock concern for pink salmon this year.

**South Coastal District** (from the Naskonat Peninsula north to 62 degrees North latitude which includes Hooper Bay and Scammon Bay):

Subsistence salmon fishing is currently closed. Gillnets of 4-inch or smaller mesh may be used to target non-salmon but are restricted to 60 feet or shorter length.

North Coastal Area, District 1 and District 2 (from 62 degrees North latitude north to Point Romanof, including the Black River, and District 1 and 2 communities of Emmonak, Nunam Iqua, Alakanuk, Kotlik, Mountain Village, Pitkas Point, St. Mary's, Pilot Station, and Marshall):

Subsistence salmon fishing is currently closed. Gillnets of 4-inch or smaller mesh may be used to target non-salmon but are restricted to 60 feet or shorter length.

## **District 3** (including Russian Mission and Holy Cross):

Subsistence salmon fishing is currently closed. Gillnets of 4-inch or smaller mesh may be used to target non-salmon but are restricted to 60 feet or shorter length.

## **Innoko River** (community of Shageluk):

Subsistence salmon fishing is currently closed. Gillnets of 4-inch or smaller mesh may be used to target non-salmon but are restricted to 60 feet or shorter length.

**District 4** (including Grayling, Anvik, Kaltag, Nulato, Koyukuk, Galena, and Ruby):

Subsistence salmon fishing is currently closed. Gillnets of 4-inch or smaller mesh may be used to target non-salmon but are restricted to 60 feet or shorter length.

## **Koyukuk River** (including Huslia, Hughes, Alatna, Allakaket, and Bettles):

Subsistence salmon fishing is currently closed. Gillnets of 4-inch or smaller mesh may be used to target non-salmon but are restricted to 60 feet or shorter length.

A subsistence fishing permit is required for all species in the Koyukuk River above Bettles including the community of Wiseman.

**District 5** (upstream to the U.S./Canada border including the Porcupine River and all other adjacent tributaries; including Tanana, Rampart, Stevens Village Beaver, Venetie, Chalkyitsik, Fort Yukon, Circle, and Eagle):

Subsistence salmon fishing is currently closed. Gillnets of 4-inch or smaller mesh may be used to target non-salmon but are restricted to 60 feet or shorter length.

A subsistence permit is required to fish for all species in portions of Subdistrict 5-C from the western most tip of Garnet Island upstream to the mouth of Dall River (Dalton Highway bridge area), and in Subdistrict 5-D from the upstream mouth of 22 Mile Slough to the U.S./Canada border.

**Subdistricts 6-A and 6-B** (from the mouth of the Tanana River upstream to the Wood River, including Manley, Minto, and Nenana):

Subsistence salmon fishing is currently closed. Gillnets of 4-inch or smaller mesh may be used to target non-salmon but are restricted to 60 feet or shorter length.

#### Old Minto Area and Kantishna River:

Subsistence salmon fishing is currently closed. Gillnets of 4-inch or smaller mesh may be used to target non-salmon but are restricted to 60 feet or shorter length.

**Upper Tanana Area** (the Tanana River from the confluence with the mouth of Volkmar River on the north bank and the mouth of the Johnson River on the south bank upstream to the Tanana River headwaters):

Subsistence salmon fishing is currently closed. Gillnets of 4-inch or smaller mesh may be used to target non-salmon but are restricted to 60 feet or shorter length.

**Subdistrict 6-C Salmon** (Personal use fishery from the regulatory marker at the mouth of the Wood River upstream to the downstream mouth of the Salcha River, which includes the communities of Fairbanks, North Pole, and Salcha):

Personal Use salmon fishing is currently closed.

## Subdistrict 6-C Whitefish and Sucker Personal Use Fishing

Fishing for whitefish and suckers in this area remains open 24 hours per day, 7 days per week, subject to permit stipulations.

A personal use permit is required to fish for other species from the mouth of the Wood River upstream to the mouth of the Salcha River (Subdistrict 6-C).

A subsistence permit is required for northern pike in the Tolovana River drainage, including Minto Flats.

Subsistence harvest calendars and subsistence fishing permits are available from the Alaska Department of Fish and Game Fairbanks office (459-7274) or online at <a href="www.adfg.alaska.gov/store/">www.adfg.alaska.gov/store/</a>.



This is an announcement by the ADF&G in cooperation with the U.S. Fish and Wildlife Service.

The Emmonak USFWS office is not open. To reach the U.S. Fish and Wildlife Service Yukon River Subsistence Fishery Manager call 351-3029.



Announcements will be shared on Facebook at www.facebook.com/YukonRiverFishingADFG

## COVID-19

Under Alaska's Health Advisories 1, 2, 3, and 4, subsistence and commercial fishing is considered essential and is part of Alaska's Essential Services and Critical Infrastructure. Commercial fishermen should ensure that all travel and other activities in support of commercial fishing operations follow protocols in Alaska COVID-19 Health Advisories. COVID-19 Health Advisories may be found here: https://covid19.alaska.gov/health-advisories/.