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Advisory Announcement

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2021 Yukon River Salmon Summer Fishery Announcement #16

Summer Update # 7, Yukon Area Salmon Fishery

Districts Affected: Yukon Area

The Chinook salmon run is more than 90% complete in the lower Yukon. The drainage-wide Chinook salmon run is projected to be at the lower end of the forecast range and is the fourth smallest since 1995. The drainage-wide run size is so small that escapement goals may not be met in many tributaries. Counts of Chinook salmon at each individual assessment project are all below average.

Assuming late run timing, the midpoint of the run will reach Eagle sonar on July 25. At that time, we may have enough in-season information to evaluate this run for timing, size, and likelihood of meeting the Canadian border objectives. This information will indicate whether there will be a small harvestable surplus on the Canadian-origin Chinook salmon run.

The cumulative end of season Pilot Station sonar count for summer chum salmon is the lowest on record and is less than 160,000 fish. Summer chum salmon may be continuing to pass Pilot Station sonar into the start of the fall season, however further counts will not be enough to meet the drainage-wide escapement goal of 500,000 to 1.2 million salmon. Summer chum salmon escapements past the Anvik and Andreafsky assessment projects are very low and will not meet escapement goals. 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 fall chum season started in District 1 on July 16, and Pilot Station sonar transitioned to fall season counts on July 19.

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 18.

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

LYTF operations for summer season concluded July 15.

The cumulative Chinook salmon set gillnet CPUE was 29.82. The cumulative Chinook salmon CPUE in the 8.25inch drift gillnet at the Big Eddy site was 43.50, which is well below the historical average of 389.49. The Middle Mouth cumulative Chinook salmon CPUE in the 8.25-inch drift gillnet was 73.01 and the combined Chinook salmon drift CPUE was 65.58. The combined cumulative summer chum salmon CPUE for the 5.5-inch drift gillnet at the Big Eddy and Middle Mouth sites was 185.44, which was well below the historical median of 7,265.00.

Sonar Project near Pilot Station/ ADF&G

Beginning July 19, chum salmon passing Pilot Station sonar are considered fall chum salmon at the sonar (though it will continue to be a mixture of summer and fall chum).

Chinook salmon passage is estimated to be $122,375 \pm 10,576$ fish (90% Confidence Interval), which is below the historical cumulative average of 143,920 fish for late run timing years. Summer chum salmon passage is estimated to be $153,497 \pm 16,271$ fish (90% Confidence Interval), which is the lowest cumulative count on record and well below the historical cumulative median of 1.6 million fish for late run timing years. Pink salmon passage is 2,238 fish $\pm 1,341$ fish (90% Confidence Interval).



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 (dashed gray line), summer chum salmon passage at Pilot Station sonar was under 450,000 fish and one of the weakest runs on record.

East Fork Andreafsky River Weir / USFWS

Cumulative passage is 731 Chinook salmon, which is well below the average of 3,417 fish for this date; and 1,392 summer chum salmon, which is well below the median of 48,544 fish for this date. Mean daily water temperatures on July 18 were above 17 C; if temperatures remain above 17 C for three days, the weir will stop sampling until temperatures decrease.

Anvik River Sonar Project / ADF&G

Cumulative passage is 11,421 summer chum salmon, which is well below the median cumulative passage of 389,916 fish for this date.

Henshaw Creek Weir / TCC

Cumulative passage is 69 Chinook salmon, which is below the average of 674 fish for this date; and 837 summer chum salmon, which is well below the median cumulative passage of 56,161 fish for this date.

Chena River Tower/Sonar (ADF&G)

Cumulative passage is 819 Chinook salmon, which is below the average of 3,445 fish for this date; and 159 summer chum salmon, which is below the median cumulative passage of 479 fish for this date. Water conditions are low with good visibility.

Salcha Tower (ADF&G)

Cumulative passage is 1,455 Chinook salmon, which is below the average of 3,806 fish for this date; and 184 summer chum salmon, which is below the median cumulative passage of 533 fish for this date. Water conditions are low with good visibility.

Eagle Sonar (ADF&G)

Cumulative passage is 7,230 Chinook salmon, which is below the average of 15,223 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.

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. These results indicate a weaker drainage-wide stock component, which coupled with a low total run, increases our conservation concern for Alaskan Chinook salmon stocks. All remaining samples will be analyzed postseason.

Age, Sex, and Length Composition

The age composition of 550 Chinook salmon sampled from the drift gillnets in the Pilot Station test fishery through June 22 was 2% age-4, 47% age-5, 46% age-6 and 4% age-7 fish. The percentage of age-6 and age-7 fish and the percentage of females (50%) were above average. Chinook salmon within each age class were smaller than average, with the exception of age-4 fish and the average length of 741 mm across all age classes is similar to the recent 10-year average length of 737 mm.

The age composition of 158 summer chum salmon sampled from the drift gillnets in the LYTF project through July 15 was 83% 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 540 mm and age-5 are 566 mm which are both record small when compared to average (1981–2020). Female summer chum salmon component was also extremely low at 44% compared to a historical average (1983–2020) of 57%.

Fall Assessment Projects

All projects that handle fish (fall season LYTF; Mt. Village Drift Test Fishery; Pilot Station and Eagle sonars) are making efforts to reduce salmon mortality and distribute test fish catches to community members. Any 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.

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

Fall season operations began on July 16 using 6-inch mesh gear to target fall chum and coho salmon. As of July 18, the fall chum salmon cumulative CPUE was 16.91 which is below the average of 100.03 for this date.

Mountain Village Drift Test Fishing / Asacarsarmiut Tribal Council

Fall season operations began on July 18 and the fall chum salmon cumulative CPUE was 34.7 which is below the average of 58.18 for that date. The fall season project began July 18 at Mountain Village.

Sonar Project near Pilot Station / ADF&G

The sonar project operated near Pilot Station transitioned to fall season counts on July 19.

Teedriinjik (Chandalar) Sonar (USFWS)

This sonar project typically begins August 8 to count fall chum salmon.

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 drainage-wide 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 goals and treaty objectives will be met. Therefore, subsistence fishing for salmon will remain closed as the fall season begins, by regulation, beginning 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 began monitoring the fall chum salmon run on 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, Scammon Bay, and Chevak):

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 <u>www.adfg.alaska.gov/store/</u>.



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

To reach the U.S. Fish and Wildlife Service Yukon River Subsistence Fishery Manager, Holly Carroll, please 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/.