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Advisory Announcement

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2022 Yukon River Salmon Summer Fishery Announcement #16 Summer Update #6, Yukon Area Salmon Fishery

Districts Affected: Yukon Area

At this time, at least three quarters of the Chinook salmon run has entered the lower river and current projections are showing that the Canadian and drainagewide Chinook salmon runs are well below the lower end of the forecast ranges and well below historical averages. The current Pilot Station sonar counts are the lowest cumulative counts ever observed for this date. These run sizes are so small it is unlikely that escapement goals in Alaska or U.S./Canada border passage objectives will be met.

As of July 4, the cumulative Pilot Station sonar counts for summer chum salmon are the second lowest on record for this date; only the counts observed in 2021 were lower. Based on historical estimates of run timing, the midpoint of the summer chum salmon run for late years is July 1 and Pilot Station sonar. Current run size projections are below the 500,000 fish needed to meet the lower end of the drainagewide escapement goal.

Due to these very poor run sizes, salmon fishing remains closed throughout the drainage. Fishing for nonsalmon, pink and sockeye salmon remains open, with gillnets restricted to 4-inch or smaller mesh and 60 feet or shorter length. We thank and appreciate the people along the river for your continued conservation and stewardship in these difficult times.

The inseason salmon management teleconferences hosted by the Yukon River Drainage Fisheries Association (YRDFA) are held Tuesdays at 1:00 p.m. This year the calls focus on relaying assessment and management updates and local concerns. There is important fisheries research being done and the YRDFA teleconference is a great way to discuss all aspects of Yukon River fisheries and to connect with other communities, research projects, and managers all the way up the Yukon River. To participate, call 800-315-6338 and enter code: YUKON# (98566#).

Assessment Projects

All information is current through July 4.

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

LYTF operations for 2022 have been altered compared to previous years. The Middle Mouth set gillnet site is not being operated to reduce Chinook salmon mortalities, but drift gillnet operations using 8.25-inch mesh have been added to obtain Chinook salmon 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 unchanged. The Big Eddy Chinook salmon drift CPUE values can be compared to historical averages but the set net data from Big Eddy should not be compared to historical data because they do not include any Middle Mouth set net data this season.

Big Eddy set net site was deployed June 5. The cumulative CPUE for the Big Eddy set net site is 5.84. which is lower than the 2015–2021 Big Eddy site only historical average for this date of 18.87.

LYTF drift gillnet operations began on May 26 at Big Eddy for Chinook and summer chum salmon. Middle Mouth Drifts began June 3. Drift sites are occasionally having issues with wind, rough water, and lots of debris. Some drifts have been cancelled due to poor fishing conditions. The Big Eddy cumulative Chinook salmon CPUE in the 8.25-inch drift gillnet is 107.12, which is below the historic average of 359.11. The Middle Mouth cumulative Chinook salmon CPUE for the 8.25-inch drift gillnet is 12.34, and the combined Chinook drift CPUE is 45.17. The cumulative CPUE for summer chum salmon in the 5.5-inch drift gillnet is 578.73, which is below the historical median of 6,512.29. The last relatively large group of summer chum salmon was detected at LYTF on July 2.

Any salmon healthy enough will be released alive from the test nets. Injured salmon and mortalities are distributed to community members by Tribal councils, or on a first come, first-served basis from a public dock. Chinook salmon test fish mortalities are sampled for genetics, otoliths, liver, stomach contents, intestine, eggs, and muscle biopsy. Measurements include age from scales, sex, length, and fat content. These samples and measurements will be sent to researchers working on understanding salmon health and body condition. In addition to LYTF, other test fish projects in collaboration with ADF&G and the USFWS are also collecting tissue samples (heart, kidney, eggs, blood draw) from Chinook salmon to test for fish diseases and other fish health related research. Heart tissues are being sampled to test for Ichthyophonus and kidney tissues are being tested for proliferative kidney disease (PKD). Results will be available post season.

Sonar Project near Pilot Station/ ADF&G

Water levels are slowly dropping but still relatively high with moderate debris. Sonar and test fishing operations have been proceeding as planned. Cumulative Chinook salmon passage is estimated to be $35,071 \pm 6,189$ fish (90% Confidence Interval), which is well below the historical cumulative average of 156,396 based on normal run timing years, and 128,415 fish based on late run timing years. Summer chum salmon passage is estimated to be $233,259 \pm 14,167$ fish (90% Confidence Interval), which is well below the historical cumulative median of 1,155,990 fish based on late run timing years.

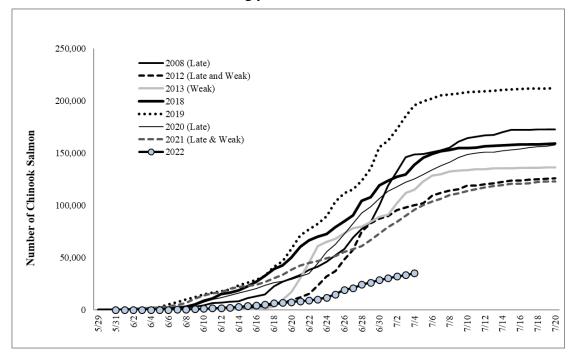


Figure 1. 2022 Cumulative passage of Chinook salmon at the Pilot Station sonar compared to late and/or weak years.

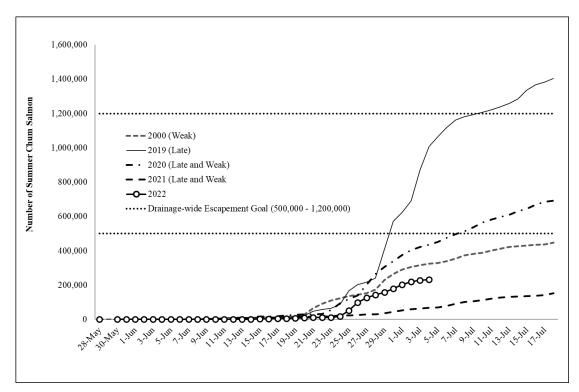


Figure 2. 2022 Cumulative summer chum salmon passage at the Pilot Station sonar compared to recent late and weak years. The horizontal dotted line represents the lower bound of the drainage-wide escapement goal for summer chum salmon.

East Fork Andreafsky Weir/ USFWS

The crew is back on site after evacuating due to the fire. The base rail is installed, and counts should be available later this week.

Anvik River Sonar Project/ ADF&G

Cumulative passage is 4,170 summer chum salmon, which is below the median cumulative passage of 117,829 fish for this date.

Gisasa Weir/ USFWS

The weir was fish tight on June 29. The first full day of counts was June 30. As of July 4, cumulative passage is 3 Chinook salmon which is below the average cumulative passage of 126 fish for this date. Summer chum salmon cumulative counts are 57 fish, which is below the median cumulative passage of 8,060 summer chum salmon for this date.

Chena River Tower/Sonar (ADF&G)

Counts began on July 2 and zero fish have been observed.

Salcha Tower (ADF&G)

Counts began on July 2 and zero fish have been observed.

Eagle Sonar/ ADF&G

The first day of sonar counts was July 1 and 51 Chinook salmon have been counted, which is below the average cumulative passage of 789 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.

Assessment projects that will begin operations later this season when fish arrive in the area:

Sheenjek Sonar (ADF&G) and Teedriinjik (Chandalar) Sonar (USFWS).

Henshaw Weir (TCC) is not expected to operate this year due to necessary repairs.

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 June 7 to June 27) indicated that $64\% \pm 4\%$ (90% Confidence Interval) of this group of fish were of Canadian-origin. Currently the projections for the Canadian-origin run indicate a run size well below the lower end of the preseason outlook of 41,000 to 62,000 fish.

Age, Sex, and Length Composition

The age composition of 65 Chinook salmon sampled from the set and drift gillnets in the LYTF project through June 23 was 6% age-4, 31% age-5, 57% age-6 and 5% age-7 fish. The percentage of age-4 and age-7 fish and the percentage of females (54%) were above average. Chinook salmon within each age class were smaller than average, with the exception of age-4 fish. The average length of 768 mm across all age classes is smaller than the recent 10-year average length of 797 mm.

The age composition of 140 summer chum salmon sampled from the drift gillnets in the LYTF project through June 23 was 47% age-4, 53% age-5, and less than 1% age-6 fish. This compares to an average of 51% age-4 and 46% age-5 summer chum salmon. The age-4 fish average length of 540 mm and the age-5 average length of 550 mm are both record small when compared to average (1981–2021). Female summer chum salmon are also extremely low at 45% compared to a historical average (1983–2021) of 57%.

Current Subsistence Management Actions

Subsistence salmon fishing has been closed to protect Chinook and summer chum salmon as they migrate upriver. The opportunity to harvest <u>nonsalmon</u> 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. Fishermen should fish this nonsalmon gear in areas where resident species are more likely to be encountered.

Due to the low run sizes, we are encouraging fishermen to target nonsalmon and to release Chinook and summer chum salmon alive from nonsalmon gear types to protect future salmon runs. <u>Pink and sockeye salmon may be retained.</u> Other legal gear types to take <u>nonsalmon</u> include hook and line with a rod or pole, up to and including the Nulato River, while all Yukon River districts may use hand line, longline, fyke net, dip net, and spear.

Coastal District, Districts 1, 2, and 3, Subdistrict 4-A, and the Innoko River (from the Naskonat Peninsula north to Point Romanof and upstream to Cone Point, which includes the Black River and the communities of Chevak, Hooper Bay, Scammon Bay, Emmonak, Nunam Iqua, Alakanuk, Kotlik, Mountain Village, Pitkas Point, St. Mary's, Pilot Station, Marshall, Russian Mission, Holy Cross, Shageluk, Anvik, Grayling, Kaltag, Nulato, and Koyukuk):

Salmon fishing is closed. Fish wheels and gillnets larger than 4-inch mesh are not allowed. Gillnets of 4-inch or smaller mesh may be used to target nonsalmon but are restricted to 60 feet or shorter length. Dip nets and hook and line gear may be used for nonsalmon, pink and sockeye salmon; however, Chinook and summer chum salmon must be released alive. Hook and line gear may be used up to and including the Nulato River.

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

Salmon fishing is closed. Fish wheels and gillnets larger than 4-inch mesh are not allowed. Gillnets of 4-inch or smaller mesh may be used to target nonsalmon but are restricted to 60 feet or shorter length. Dip nets may be used for nonsalmon; however, Chinook and summer chum salmon must be released alive.

A subsistence fishing permit is required for all species in the South and Middle forks of the Koyukuk River above Bettles including the community of Wiseman. By regulation, gillnet gear in the permit area is closed for all species from July 1 to August 19. If you are outside the permit area, contact the Fairbanks office at 907-459-7274 for a subsistence harvest calendar.

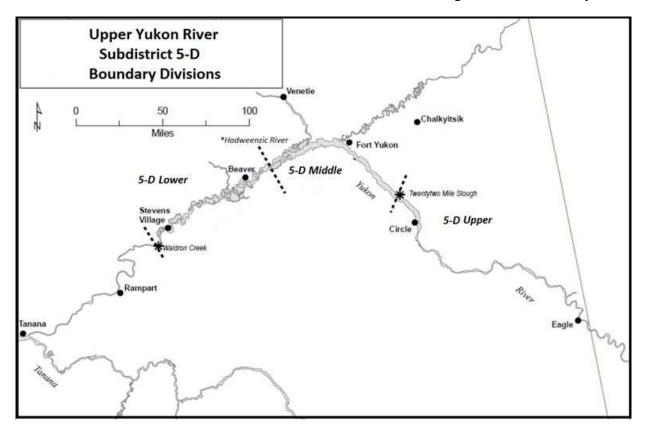
Subdistricts 4-B and 4-C (including Galena and Ruby):

Salmon fishing is closed. Fish wheels and gillnets larger than 4-inch mesh are not allowed. Gillnets of 4-inch or smaller mesh may be used to target nonsalmon but are restricted to 60 feet or shorter length. Dip nets may be used for nonsalmon, pink and sockeye salmon; however, Chinook and summer chum salmon must be released alive.

District 5 (from Illinois Creek to the U.S./Canada border and all other adjacent tributaries, including the communities of Tanana, Rampart, Stevens Village, Beaver, Venetie, Chalkyitsik, Birch Creek, and Fort Yukon):

Salmon fishing is closed. Fish wheels and gillnets larger than 4-inch mesh are not allowed. Gillnets of 4-inch or smaller mesh may be used to target nonsalmon but are restricted to 60 feet or shorter length. Dip nets may be used for nonsalmon, pink and sockeye salmon; however, Chinook and summer chum salmon must be released alive.

A subsistence permit is also required to fish for all species in portions of District 5; in Subdistrict 5-C from the westernmost tip of Garnet Island upstream to ADF&G regulatory markers located two miles downstream of Waldron Creek (Dalton Highway bridge area); in the portion of Subdistrict 5-D Lower from an ADF&G regulatory marker two miles downstream of Waldron Creek upstream to the mouth of Dall River; and in the portion of Subdistrict 5-D Upper from the upstream mouth of 22 Mile Slough to the U.S./Canada border. In Birch Creek, and the subsistence area of Beaver Creek below Moose Creek, gillnet mesh size may not exceed 3 inches.



Subdistricts 6-A and Kantishna (from the mouth of the Tanana River upstream to the eastern edge of the mouth of the Kantishna River, including the Kantishna River drainage, Lake Minchumina, and Manley):

Salmon fishing is closed. Fish wheels and gillnets larger than 4-inch mesh are not allowed. Gillnets of 4-inch or smaller mesh may be used to target nonsalmon but are restricted to 60 feet or shorter length. Dip nets may be used for nonsalmon; however, Chinook and summer chum salmon must be released alive. Subsistence fishing for nonsalmon within Lake Minchumina is open 24 hours a day, seven days per week with 6-inch or smaller mesh gillnets.

Subdistricts 6-B and Old Minto Area (from eastern edge of the Kantishna River upstream to the Wood River, including Minto and Nenana):

Salmon fishing is closed. Fish wheels and gillnets larger than 4-inch mesh are not allowed. Gillnets of 4-inch or smaller mesh may be used to target nonsalmon but are restricted to 60 feet or shorter length. Dip nets may be used for nonsalmon; however, Chinook and summer chum salmon must be released alive.

Subsistence fishing for nonsalmon is open 24 hours a day, seven days per week with 6-inch or smaller mesh gillnets in the Tolovana River drainage, including Minto Flats. Note, a subsistence pike permit is required, see details below.

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, including Delta Junction area, Dot Lake, Tanacross, Tetlin, Tok, Northway, and Nabesna):

Salmon fishing is closed. Fish wheels and gillnets larger than 4-inch mesh are not allowed. Gillnets of 4-inch or smaller mesh may be used to target nonsalmon but are restricted to 60 feet or shorter length. Dip nets may be used for nonsalmon; however, Chinook and summer chum salmon must be released alive.

A reminder to fishermen that a subsistence permit is required for salmon fishing in the Tanana River drainage up to the Wood River (Subdistrict 6-A, 6-B, and Kantishna River drainage). A subsistence salmon permit is not required in Lake Minchumina. A subsistence fishing permit is required to fish for northern pike in the Tolovana River drainage, including Minto Flats and for all fish species in the Upper Tanana Area.

Subsistence harvest calendars and subsistence fishing permits are available from the Alaska Department of Fish and Game Fairbanks office 907-459-7274 or online at www.adfg.alaska.gov/store/.

Personal Use Management Actions

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 closed, and periods are cancelled until further notice.

Personal Use Whitefish and Sucker Fishing

Fairbanks Nonsubsistence Area (a portion of the Tanana River drainage from the Wood River upstream to the mouth of the Volkmar River on the north bank and the mouth of the Johnson River on the south bank, which includes Fairbanks, North Pole, Salcha, and Delta Junction):

Personal Use whitefish and sucker fishing with gillnets and fish wheels follows the Subdistrict 6-C Personal Use salmon fishing schedule and is closed until further notice.

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

A reminder to personal use fishermen that a personal use whitefish and sucker permit and current sport fishing license are required to fish for these species in the Fairbanks Nonsubsistence Area. Permits and licenses are available from the Alaska Department of Fish and Game Fairbanks office or online at www.adfg.alaska.gov/store/.

Federal Special Action

The Alaska Department of Fish and Game (ADF&G) and the U.S. Fish and Wildlife Service (USFWS) have coordinated on this weekly update announcement. For information regarding Federal subsistence fishing regulations contact Holly Carroll at 907-351-3029.



This is an announcement by the ADF&G in cooperation with the USFWS.

The Emmonak USFWS office is not open. To reach the USFWS Yukon River Subsistence Fishery Manager call Holly Carroll at 907-351-3029.



ADF&G Advisory Announcements will be posted on www.cfnews.adfg.alaska.gov/ and shared on Facebook at www.facebook.com/YukonRiverFishingADFG.

