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# **Advisory Announcement**

**CONTACT:** 

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# 2023 Yukon River Salmon Summer Fishery Announcement #23 Summer Update #6, Yukon Area Salmon Fishery Districts Affected: Yukon Area

At this time, most of the Chinook salmon run has entered the lower river and the 2023 Chinook salmon run appears similar in size to the very poor run observed in 2022. Current projections for the Canada-origin and drainage wide Chinook salmon runs are well below historical averages and Chinook salmon fishing remains closed.

Summer chum salmon passage at Pilot Station Sonar has exceeded 500,000 fish, which provides high confidence that the 500,000 to 1.2 million fish drainagewide escapement goal range will be achieved. Subsistence fishing with selective gear types has been opened 24 hours per day up through District 4 and announced for Subdistrict 5-ABC and subsistence areas of the Tanana River. Few summer chum salmon migrate further upriver than the Tanana River.

All Chinook salmon must be released alive from selective gear types. Fishermen are reminded to practice respectful and safe fish handling techniques and ensure any Chinook salmon caught in selective or nonsalmon gear types are released alive so they may continue upriver to their spawning grounds. If it appears that Chinook salmon are being targeted with this gear, fishing will be further restricted.

Assessment project and management updates will be shared during the weekly YRDFA teleconferences each **Tuesday at 1:00 p.m. (Alaska time). Call in number: 1-800-315-6338, Passcode: 98566#** 

# **Assessment Projects**

Updated with data through July 9.

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

LYTF drift gillnet operations for Chinook and summer chum salmon began on June 5 at Big Eddy and Middle Mouth sites. Multiple drift sessions have been cancelled due to poor fishing conditions and rough weather but the indices are still providing valuable information on passage rates. The Big Eddy cumulative Chinook salmon CPUE in the 8.25-inch drift gillnet is 51.31, which is below the historic average of 368.81. The Middle Mouth cumulative Chinook salmon CPUE for the 8.25-inch drift gillnet is 65.65. The combined Chinook drift CPUE is 59.72, which is slightly above the 2021–2022 average of 55.20. The cumulative CPUE for summer chum salmon in the 5.5-inch drift gillnets is 1,321.14, which is below the historical median (2002–2022) of 2,683.0.

To reduce Chinook salmon mortality, set net sites will not be used this year at Big Eddy or Middle Mouth locations. All salmon will be released alive from the test nets if possible. Injured salmon and mortalities will be distributed to communities.

Data collected from Chinook and summer chum salmon will include ASL (Age, Sex, and Length). A few salmon of all species caught in LYTF will be sampled this year for other fish health research.

# Pilot Station Sonar (ADF&G)

Water levels are continuing to drop with some debris. Cumulative Chinook salmon passage is estimated to be  $47,073 \pm 9,788$  fish (90% Confidence Interval), which is below the historical cumulative average of 132,983 for this date, based on late run timing years. Summer chum salmon passage is estimated to be 516,555  $\pm$  24,685 fish (90% Confidence Interval), which is below the historical cumulative median of 1,452,476 fish for this date based on normal timing years, and 973,399 fish based on late run timing years.

All Chinook salmon captured in the Pilot Station Sonar test fishery (PSSTF) will be sampled for age, sex, length, and genetics. Additional biological sampling will be conducted for all Chinook salmon test fish mortalities as part of a broad collaborative effort to better understand salmon health and potential drivers of *en route* mortality and low productivity. Additional samples will include otoliths, heart, kidney, liver, intestine, eggs, blood, muscle biopsy, and fat content. The PSSTF heart samples will be used by ADF&G and USFWS, along with samples from other locations, to investigate the potential for *Ichthyophonus*-associated mortality. Kidney samples from PSSTF are being tested for proliferative kidney disease. Fish health results will be available post season.

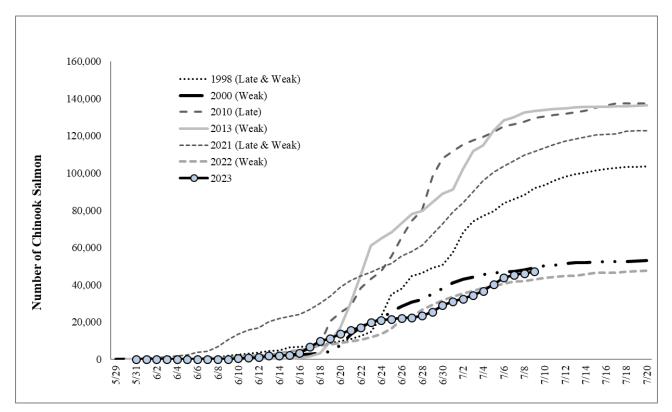


Figure 1. 2023 Cumulative passage of Chinook salmon at the Pilot Station sonar compared to late and/or weak years.

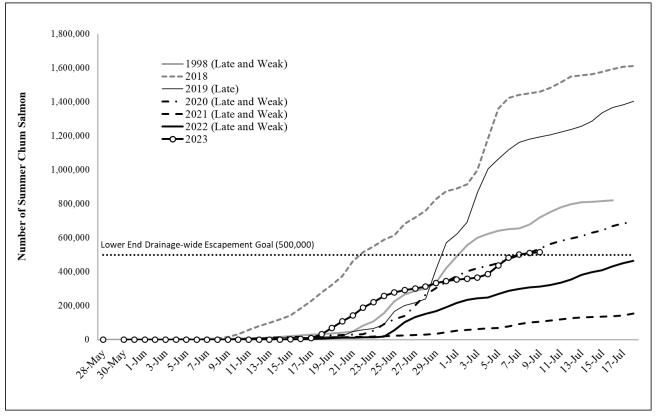


Figure 2. 2023 Cumulative passage of summer chum salmon at the Pilot Station sonar compared to late and/or weak years.

#### East Fork Andreafsky Weir (USFWS)

The weir was fish tight by the evening of July 8, but water levels rose over the weekend preventing accurate counts. Both Chinook and summer chum salmon have been observed but counts are considered underestimates. The weir should be fish tight once water levels drop.

# Anvik River Sonar Project (ADF&G)

Counts began on June 15. Cumulative passage is 43,443 summer chum salmon, which is below the cumulative median of 230,829 fish.

#### Gisasa River Weir (USFWS)

Fish counts began on July 4. Cumulative passage is 92 Chinook salmon, which is below the cumulative average of 439 fish, and 2,955 summer chum salmon, which is below the cumulative median of 18,509 fish.

#### Henshaw Creek Weir (TCC)

The crew is in camp and experiencing high water in the Henshaw Creek, which is delaying weir installation.

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

Counts began on June 29. Cumulative passage is 21 Chinook salmon, which is below the cumulative average of 625 fish, and 18 summer chum salmon, which is below the cumulative median of 26 fish.

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

Counts began on July 6. Cumulative passage is 18 Chinook salmon, which is below the cumulative average of 521 fish, and 9 summer chum salmon.

#### Eagle Sonar Project (ADF&G/DFO)

The sonar was installed on June 30 and full operations (sonar and test fishery) began on July 1. Cumulative passage is 88 Chinook salmon which is below the cumulative average of 2,233 fish. The Interim Management Escapement Goal for Canada-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.

# Chinook Radio Telemetry (ADF&G)

2023 is the first year of a 3-year effort to capture and tag Chinook salmon near Emmonak and track upriver migration to evaluate concerns for *en route* mortality. The Chinook salmon radio telemetry tagging project experienced a delayed start and began tagging on June 19. Chinook salmon catches have been low due, in part, to high water conditions combined with poor run abundance. Each fish was tagged with both an internal radio telemetry tag and an external spaghetti tag. **If you encounter a tagged fish this season and are successful at documenting the tag number, please call 1-877-467-2104 to report information about when and where the fish was observed.** As a thank you for voluntarily reporting the tag number and associated information, you will be automatically entered into the ADF&G salmon tag lottery. More information about the project can be found on posters in communities along the river or at the ADF&G offices in Anchorage, Fairbanks, and Emmonak. Please contact Josh Clark at 907-267-2217 or Fred West at 907-267-2237 with any questions.

# Age, Sex, and Length Composition

The age composition of 133 Chinook salmon sampled from the drift gillnets in the Pilot Station Sonar test fishery through June 25 was 4% age-4, 68% age-5, 25% age-6 and 4% age-7 fish. The percentage of age-5 and age-7 fish were above average, while age-6 fish and the percentage of females (41%) were below average. Chinook salmon within each age class with the exception of age-4 fish were smaller than the recent 10-year average and the average length of 720 mm across all age classes is smaller than the recent 10-year average length of 736 mm.

The age composition of 318 summer chum salmon sampled from the drift gillnets in the LYTF project through June 22 was 54% age-4, which compares to a historical average of 36% for this date. The age-5 component made up 44% of the samples, which compares to a historical average of 61% for this date. Of the samples, 2% were age-6 fish, which compares to the historical average of 3% for this date. The age-4 fish average length of 554 mm is similar compared to average (2013–2022) and the age-5 average length of 560 mm was below average but larger than what was observed last year. Female summer chum salmon are slightly lower at 53% compared to a historical average (2013–2022) of 58%.

# **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 25) indicated that  $44\% \pm 8\%$  (90% Credible Interval) of this group of fish were of Canada-origin. Samples from June 26 to July 6 (Stratum 2) indicated that  $52\% \pm 8\%$  (90% Credible Interval) were of Canada-origin. Currently the projections for the Canada-origin run indicate a run size well below the lower end of the preseason outlook of 26,000 to 43,000 fish.

# **Current Subsistence Management Actions**

Subsistence fishing for salmon with gillnets is closed to protect migrating Chinook salmon.

During summer chum salmon fishing openings with selective gear types, fishermen may use dip nets, beach seines, hook and line gear and manned fish wheels. All Chinook salmon must be released alive. Fish wheels

must be manned at all times during operation; Chinook salmon may not enter a live box and must be immediately returned to the water using a chute, slide, tote, or other fish friendly means.

Gillnets of 4-inch or smaller mesh may be used to target nonsalmon 24 hours a day, 7 days a week. Fourinch or smaller mesh gillnets must be 60 feet or less in length and operated as a set net. Fishermen are reminded to set this gear near shore and in areas where nonsalmon species are abundant to avoid incidentally harvesting salmon. While any salmon caught in this gear may be kept, if it appears salmon are being targeted with this gear, it could be further restricted.

Other subsistence gear types for nonsalmon species include hook and line, dip net, beach seine, hand line, longline, fyke net, lead, and spear. The area where hook and line gear may be used for subsistence has been extended above the Nulato River, except for District 6 and some closed waters.

In Districts 3-6, submerged gillnets may be used for subsistence and personal use during ice-free months, however submerged nets must have a visible buoy or cluster of floats attached to both ends of the net, plus a third float in the middle if the net is over 60 feet in length.

Gillnets must be marked with a buoy, float, or keg that has the fisherman's first initial, last name, and address.

**Coastal District and Districts 1, 2, 3, 4, and the Innoko, Anvik, and Koyukuk Rivers** (from the Naskonat Peninsula to Point Romanof and including the Black River and the communities of Emmonak, Nunam Iqua, Alakanuk, Kotlik, Mountain Village, Pitkas Point, St. Mary's, Pilot Station, Marshall, Russian Mission, Holy Cross, Shageluk, Grayling, Anvik, Kaltag, Nulato, Koyukuk, Huslia, Hughes, Allakaket, Alatna, Bettles, Galena, and Ruby):

Fishing for summer chum salmon is open with selective gear 24 hours per day, 7 days per week. Summer chum, pink, and sockeye salmon may be kept. <u>All Chinook salmon must be released alive.</u>

Dip nets, beach seines, hook and line, and manned fish wheels may be used. Fish wheels must be manned at all times during operation; Chinook salmon may not enter a live box and must be immediately returned to the water using a chute, slide, tote, or other fish friendly means. <u>All</u> <u>Chinook salmon must be released alive.</u>

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. Gillnet gear in the permit area may only be used from August 20 to June 30 and must be 3½ inches or smaller mesh size. If you are outside the permit area, contact the Fairbanks office at 907-459-7274 for a subsistence harvest calendar.

Subdistricts 5-A, 5-B, and 5-C (Tanana and Rampart):

Effective 6 p.m. Tuesday, July 11, fishing for summer chum salmon is open with selective gear 24 hours per day, 7 days per week. Summer chum, pink, and sockeye salmon may be kept. <u>All</u> <u>Chinook salmon must be released alive.</u>

Dip nets, beach seines, hook and line, and manned fish wheels may be used. Fish wheels must be manned at all times during operation; Chinook salmon may not enter a live box and must be immediately returned to the water using a chute, slide, tote, or other fish friendly means. <u>All</u> <u>Chinook salmon must be released alive.</u>

A subsistence permit is required to fish for all species in the portion of Subdistrict 5-C from the western most tip of Garnet Island upstream to the mouth of Dall River (Dalton Highway bridge area).

**Subdistrict 5-D** (from an ADF&G regulatory marker two miles downstream of Waldron Creek upstream to the U.S./Canada border and all other adjacent tributaries, including the communities of Stevens Village, Beaver, Venetie, Chalkyitsik, Birch Creek, Fort Yukon, Circle, and Eagle):

Salmon fishing is closed. Fish wheels and gillnets larger than 4-inch are not allowed. Gillnets of 4-inch or smaller mesh may be used to target nonsalmon and are restricted to 60-feet or less in length and must be operated as a set net. Nets should be set near shore.

Dip nets, beach seines, and hook and line gear may be used for nonsalmon species. Chinook salmon must be released alive.

A subsistence permit is required to fish for all species 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.

A subsistence permit is required to fish for all species from the upstream mouth of 22 Mile Slough to the U.S./Canada border.

**Subdistrict 6-A, 6-B, Old Minto Area, and Kantishna River** (from the mouth of the Tanana River upstream to the eastern edge of the mouth of the Wood River, including the Wood and Kantishna River drainages, Lake Minchumina, and Manley, Minto, and Nenana):

Subsistence salmon fishing is closed.

Effective 6 p.m. Friday, July 14, fishing for summer chum salmon will open with selective gear types 24 hours per day, 7 days per week.

Dip nets, beach seines, and manned fish wheels may be used for summer chum, pink, and sockeye salmon. Fish wheels must be manned at all times during operation; Chinook salmon may not enter a live box and must be immediately returned to the water using a chute, slide, tote or other fish friendly means. <u>All Chinook salmon must be released alive.</u>

Subsistence fishing for nonsalmon is open 24 hours a day, seven days per week with 6-inch or smaller mesh gillnets in Lake Minchumina and 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):

Subsistence salmon fishing is closed.

Effective 6 p.m. Monday, July 24, fishing for summer chum salmon is open with selective gear types 24 hours per day, 7 days per week.

Dip nets, beach seines, and manned fish wheels may be used for summer chum, pink, and sockeye salmon. Fish wheels must be manned at all times during operation; Chinook salmon may not enter a live box and must be immediately returned to the water using a chute, slide, tote or other fish friendly means. <u>All Chinook salmon must be released alive.</u>

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

#### **Personal Use Management Actions**

**Subdistrict 6-C** (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 is closed until further notice.** Fishing with other gear for whitefish and suckers in this area remains open 7 days per week, 24 hours per day, subject to permit stipulations.

A reminder to personal use fishermen that a personal use salmon permit is required to fish for salmon in Subdistrict 6-C and a personal use whitefish and sucker permit is required to fish for these species in the Fairbanks Nonsubsistence Area. Both permits require a valid sport fishing license.

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

The ADF&G Emmonak office is open Mondays to Fridays 8 a.m. to 5 p.m., Saturdays 1 p.m. to 5 p.m. (closed Sundays).

# **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 advisory announcement. The Federal manager issued Federal emergency special actions to restrict the selective gear opportunities for summer chum salmon to federally-qualified subsistence users only in federal public waters. The Emmonak USFWS office is not open. To reach the USFWS Yukon River Subsistence Fishery Manager, call Holly Carroll at 907-351-3029.



This is an announcement by the ADF&G and the USFWS. Federal Special Actions will be posted on www.doi.gov/subsistence/fisheries-special-actions.



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