# ALASKA DEPARTMENT OF FISH AND GAME DIVISION OF COMMERCIAL FISHERIES

**NEWS RELEASE** 



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#### 2015 Kuskokwim River Salmon Fisheries Update #7

The Alaska Department of Fish and Game (ADF&G) works cooperatively with U.S. Fish and Wildlife Service (USFWS), National Park Service, and various Tribal or community groups to monitor the health of Kuskokwim Area salmon stocks and provide data for inseason management.

ADF&G ensures that all assessment data are publicly available inseason. Detailed project summaries are prepared each week and presented to the Kuskokwim River Salmon Management Working Group. Management meetings are held each Wednesday at the ADF&G office in Bethel. Working Group meetings are open to the public, in person or via teleconference. Project summaries and associated meeting materials are available online by 5:00 PM Tuesday during the salmon season. In addition, select data are available daily by 10:00 AM.

#### Working Group Information Packets:

http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakuskokwim.kswg

Inseason Bethel Test Fish and Escapement Monitoring Data:

http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakuskokwim.salmon#fishcounts

# **Assessment Overview**

The Chinook salmon run is nearing completion in the lower and middle portions of the Kuskokwim River. It appears that the run timing was average but very protracted compared to previous years. Bethel Test Fishery indicates that the run was modestly larger compared to recent years. Weir escapements suggest that the peak of the Chinook salmon escapement has been observed at tributary monitoring locations. Established weir-based escapement goals have been achieved on the Kwethluk, Kogrukluk, and George Rivers. Aerial survey assessments of peak spawning abundance are underway. A total of 10 aerial surveys have been completed, 4 of which have established escapement goals. The aerial survey goal was exceeded at the Salmon River

(Pitka Fork), achieved at the Kisaralik River, and not achieved at the Holitna River (mainstem) or Gagaryah River. Overall, escapements are improved compared to recent years, which indicate that the conservation measures and sacrifices by local subsistence users were effective. It is too soon to determine the adequacy of drainage-wide escapement, but the inseason evidence is encouraging.

The sockeye salmon run is nearing completion in the lower and middle portions of the Kuskokwim River. It appears that the run was late and strong compared to prior years. Record numbers of sockeye salmon have passed the Kwethluk River and Telaquana Lake weirs. However, relatively few sockeye salmon have been observed at the Kogrukluk or Salmon (Aniak) Rivers. It appears that the sockeye escapement to the Kogrukluk River is very late. Inseason projections based on late run timing indicate that the established escapement goal for Kogrukluk River sockeye salmon could be achieved.

The chum salmon run continues to be weak; however, escapement may be adequate. Overall, the data collected to date indicates that the 2015 chum salmon run may be one of the lowest on record. Chum salmon escapements are below average at all projects except the Kwethluk River, where escapement is average. There is considerable evidence that the established escapement goal on the Kogrukluk River will be achieved. Conservation for chum salmon was warranted.

ADF&G has shifted toward coho salmon management in the lower river. The Bethel Test Fishery indicates that coho salmon are building and will soon surpass chum salmon as the most abundant species in the lower river. It is too soon to accurately project the coho salmon run strength. A few coho salmon have been observed at upriver weirs indicating that the beginning of the coho salmon run, which was observed in the lower river in early July, is likely passing through the middle river.

#### **Chinook Salmon Tagging**

ADF&G has completed Chinook salmon tagging efforts downstream of Bethel near Fowler Island. A total of 1,212 Chinook salmon were tagged with brightly colored external tags of which 623 were also radiotagged. The purpose of this study was to estimate the total number of Chinook salmon that return to the Kuskokwim River in 2015 and monitor the migration timing and speed of tagged fish as they travel through the primary harvest areas towards their spawning grounds.

Radio tagged fish are being monitored as they migrate upriver using aerial surveys and tracking towers located between Bethel and McGrath. On average, tagged fish are swimming 21.4 miles per day. Approximately 80% of the tagged fish are upriver from Tuluksak, 61% are upriver from Chuathbaluk, 41% are upriver from Sleetmute, and 40% are upriver from McGrath. Fish bound for headwaters tributaries had an earlier median tag date compared to fish bound for other portions of the Kuskokwim River drainage. Fish bound for lower river tributaries did not conform to our expectation of late arrival timing into the Kuskokwim River. Rather, lower river fish were captured throughout the study, and had an earlier median tag date compared to fish bound for middle river tributaries.

ADF&G is conducting a Salmon Tag Lottery. Tagged fish are identifiable by a brightly colored plastic tag attached to their back, and a metal antennae coming out of their mouth. *It is okay if you harvest one of these tagged fish*. If you do, please call 1-800-267-2104 and return the radio tag to the ADF&G office in Bethel. In appreciation, you will be entered into the monthly Lottery and eligible for a cash prize of \$200 and a seasonal cash prize of \$500.

#### **Bethel Test Fishery**

Bethel Test Fishery (BTF) is the primary inseason run assessment tool for Kuskokwim River salmon and is operated the same way each year. The daily Catch Per Unit Effort (CPUE) is used to index run timing and relative abundance of Chinook, chum, sockeye, and coho salmon. These data have only limited utility for estimating total run size or escapement. *The 2015 data is not directly comparable to prior years due to subsistence fishing restrictions*. The Bethel Test Fishery continues to operate on schedule.

Small numbers of Chinook salmon are still being caught in the lower Kuskokwim River. Cumulative CPUE as of July 27 is 610, which is above both the recent 5- and 10-year averages for this date. However, recent years include some of the lowest run sizes on record. On average, 99% of the Chinook salmon run has passed Bethel as of July 27. It appears that the timing of the Chinook salmon run was average but protracted compared to past years.

Small numbers of sockeye salmon are still being caught in the lower Kuskokwim River. As of July 27, cumulative CPUE is 2,121, which is well above the 5- and 10-year averages for this date. On average, 99% of the sockeye salmon run has passed Bethel as of July 27. The 2015 run was late compared to past years.

Modest numbers of chum salmon continue to be caught in the lower Kuskokwim River. As of July 27, cumulative CPUE is 2,621. The cumulative CPUE is well below the 5- and 10-year averages. It appears that daily CPUE peaked between July 14 and July 22, which is late compared to all past years. The average mid-point of the chum salmon run past Bethel is July 4. The latest midpoint on record is July 14. On average, 96% of the chum salmon run has passed Bethel as of July 27.

The coho salmon run is beginning to build in the lower river. As of July 27, cumulative CPUE is 244, which is similar to the 5- and 10-year average. The CPUE to date is about half of what was observed in 2014 which was a large run. The historical midpoint of the coho salmon run is August 8. Coho salmon currently make up about 50% of all salmon passing Bethel. We expect this percentage to increase over the coming week as coho salmon abundance increases and the runs of other species come to an end. ADF&G has shifted toward coho salmon management.

# **Aniak Test Fishery**

The Aniak Test Fishery was operated from June 1 until July 14 by the Native Village of Napaimute and ADF&G. *The 2015 data is not directly comparable to CPUE observed at the Bethel Test Fishery*.

The last day of project operations was July 14. Daily CPUE data indicate that the peak of the Chinook salmon run passed through the Aniak area between June 17 and June 27. The peak of

the sockeye salmon run passed between July 5 and July 12. Highest catches of chum salmon were between July 3 and July 12; however, the project may have ended too soon to observed the peak of the run past Aniak. Chinook salmon were the most abundant salmon species in the Aniak area throughout much of the month of June. The combined abundance of chum salmon and sockeye salmon exceeded that of Chinook salmon in late June. The relative abundance of chum salmon was lower than expected. The Aniak Test Fishery proved to be an informative tool for evaluating the run timing and relative abundance of salmon species in the middle portion of the Kuskokwim River.

#### **Kwethluk River Weir**

The Kwethluk River weir is operated by USFWS and used to index salmon escapement to the lower Kuskokwim River tributaries. As of July 27, a total of 7,474 Chinook salmon, 17,339 chum salmon, 8,001 sockeye salmon, and 91 coho salmon have been counted past the weir. The Chinook salmon escapement is considerably larger compared to recent years at this location. Chum salmon escapement is similar to the long-term average for this date. Sockeye salmon escapement to date is the largest on record for this location. It is still very early in the coho salmon run at this location. On average, the midpoint of the coho salmon run is August 26.

A sustainable escapement goal of 4,100–7,500 Chinook salmon has been established by ADF&G for this river. The lower bound of the Chinook salmon escapement goal was achieved on July 15, and it is likely that escapement will exceed the upper bound of the goal.

#### **Tuluksak River Weir**

The Tuluksak River weir is operated by USFWS. As of July 27, a total of 561 Chinook salmon, 4,237 chum salmon, 553 sockeye salmon, and 3 coho salmon have been counted past the weir. Chinook salmon escapement is larger than the recent 5-year average but smaller than the long-term historical average for this date. Chum salmon escapement is the lowest on record for this date. It is still very early in the coho salmon run at this location. On average, the midpoint of the coho salmon run is August 26.

No salmon escapement goals have been established by ADF&G for this river.

#### Salmon River (Aniak River) Weir

The Salmon River (Aniak) weir is operated by ADF&G and used to index salmon escapement to the Aniak River drainage. As of July 27, a total of 1,755 Chinook salmon, 3,091 chum salmon, 208 sockeye salmon, and 3 coho salmon have been counted past the weir. Cumulative Chinook salmon and sockeye salmon escapement to date is similar to the long-term average for this location. Chum salmon escapement is greater than 2014, but is the second lowest on record. It is still early in the sockeye salmon and coho salmon runs at this location. On average, the midpoint of the escapement past the weir is August 6 for sockeye salmon and September 1 for coho salmon.

No weir-based salmon escapement goals have been established by ADF&G for this river.

#### **George River Weir**

The George River weir is operated by ADF&G and used to index salmon escapement to middle Kuskokwim River tributaries. As of July 27, a total of 2,112 Chinook salmon, 11,727 chum salmon, and 8 coho salmon have been counted past the weir. Chinook and chum salmon escapement to date is below the historical average for this location. It is still very early in the coho salmon run at this location. On average, the midpoint of the coho salmon escapement is August 28.

A sustainable escapement goal of 1,800–3,300 Chinook salmon has been established by ADF&G for this river. The lower bound of the Chinook salmon escapement goal was achieved on July 15.

#### Tatlawiksuk River Weir

The Tatlawiksuk River weir is operated by ADF&G and used to index salmon escapement to middle Kuskokwim River tributaries. Operations were interrupted on July 19 due to high water and normal operations were resumed on July 20. As of July 27, a total of 2,046 Chinook salmon, 8,737 chum salmon, and 10 coho salmon have been counted past the weir. Chinook salmon escapement to date is the third largest on record for this location. Chum salmon escapement is well below average, and is the fourth lowest on record. It is still very early in the coho salmon run at this location. On average, the midpoint of the coho salmon escapement is August 23. No salmon escapement goals have been established by ADF&G for this river.

#### **Kogrukluk River Weir**

The Kogrukluk River weir is operated by ADF&G and used to index salmon escapement to the Holitna River drainage. Operations were interrupted on July 17 due to high water and normal operations were resumed on July 20. As of July 27, a total of 5,986 Chinook salmon, 13,262 chum salmon, 2,326 sockeye salmon, and 5 coho salmon were counted past the weir. Escapement at this location is below average for all salmon species. It is still very early in the coho salmon run at this location. On average, the midpoint of the coho salmon escapement is September 1.

Sustainable escapement goals have been established by ADF&G for Chinook salmon (4,800–8,800), chum salmon (15,000–49,000), sockeye salmon (4,400–17,000), and coho salmon (13,000–28,000). The lower bound of the Chinook salmon goal was achieved on July 23. It is likely that the chum salmon goal will be achieved. There is considerable evidence that the sockeye salmon goal may not be achieved. However, recent increases in daily escapement of sockeye salmon indicate late arrival timing at the weir. Inseason projections based on late run timing indicate that the sockeye salmon goal could be achieved.

#### Telaquana Lake Weir

The Telaquana Lake weir is operated cooperatively by ADF&G and National Park Service. The weir is used to index escapement for lake-spawning sockeye salmon. As of July 27, a total of 61,347 sockeye salmon have been observed past the weir. Cumulative escapement to date is the largest on record for this location and is nearly three times the historical average.

# Salmon River (Pitka Fork) Weir

The Salmon River (Pitka Fork) weir is operated by ADF&G and MTNT (McGrath, Takotna, Nikolai, Telida) and used to index Chinook salmon escapement to the headwaters upriver from

McGrath. As of July 27, a total of 5,620 Chinook salmon and 28 chum salmon have passed the weir. This is the first year that this weir has operated since 1982. The location of the weir has changed since that time, and no comparable data exists.

#### **District W4**

The Kanektok River weir is used to monitor escapement to District W4 and has been in operation since June 22. As of July 27, total passage through the weir is 7,389 Chinook salmon, 85,213 sockeye salmon, 8,868 chum salmon, and 82 coho salmon. Chinook salmon escapement is above average for this date, while the escapement of sockeye, chum, and coho salmon are below average. Chum salmon escapement in particular is well below the historical average of 36,413.

There have been a total of 9 commercial openers in District W4. The first commercial opener was July 3. Total harvest to date is 7,252 Chinook salmon, 28,003 sockeye salmon, 14,050 chum salmon and 775 coho salmon. Harvest is below average for all species. Commercial fishing has been temporarily suspended in District W4 to allow for additional escapement of chum salmon.

#### **District W5**

The Middle Fork Goodnews River weir is used to monitor escapement to District 5 and has been in operation since June 25. As of July 27, total passage through the weir is 1,168 Chinook salmon, 50,961 sockeye salmon, and 7,017 chum salmon. No coho salmon have been observed. Sockeye salmon escapement has exceeded the upper bound of the biological escapement goal (18,000–40,000 fish). Chinook salmon escapement is below average for this location. Chum salmon escapement is well below the historical average of 20,337.

There have been a total of 9 commercial openers in District W5. The first commercial opener was July 3. Total harvest to date is 661 Chinook salmon, 23,622 sockeye salmon, 4,289 chum salmon, and 87 coho salmon. Harvest is below average for all species. Commercial fishing has been temporarily suspended in District W5 to allow for additional escapement of chum salmon.

# <u>Tributary Escapement Monitoring – Aerial Surveys</u>

Aerial surveys of peak Chinook salmon spawning abundance began on July 20, progressing from the headwaters to the mouth of the Kuskokwim River. Aerial surveys are an index of escapement to a very broad geographic area – meaning not all fish are counted, but the number of fish observed is related to the number of fish that escaped.

A total of 4 tributaries were surveyed in the headwaters upriver from McGrath: Salmon River of the Pitka Fork; Bear Creek; Little Tonzona; and Sullivan Creek. Only the Salmon River of the Pitka Fork has an established escapement goal (470–1,600). A total of 1,916 Chinook salmon were observed in the Salmon River of the Pitka Fork, exceeding the upper bound of the goal. A total of 1,381 Chinook salmon were observed in Bear Creek, which is the largest count on record for that location. A total of 175 and 62 Chinook salmon were observed in Little Tonzona and Sullivan Creek, respectively.

A total of 5 tributaries were successfully surveyed in the middle portion of the Kuskokwim River: Holitna River mainstem, Chukowan River, Gagaryah River, Holokuk River, and Kipchuck River. Only the Holitna River mainstem and Gagaryah River have established

escapement goals. A total of 662 Chinook salmon were observed in the index reaches of the Holitna River mainstem, which is below the lower bound of the established escapement goal (970–2,100). Only 19 Chinook salmon were counted in the Gagaryah River which is well below the escapement goal (300–830). A total of 1,073 Chinook salmon were counted in the Chukowan River (tributary of the Holitna River) which is above average for that location. A total of 917 Chinook salmon were observed in the Kipchuk River (tributary of the Aniak River) which is similar to the historical average for that location. Only 77 Chinook salmon were observed in the Holokuk River which is below the historical average. Surveys were attempted on the Oskawalik River, Cheeneetnuk River, and Aniak River mainstem, but were not successful due to water conditions.

The Kisaralik River is the only lower river tributary that has been flown to date. A total of 709 Chinook salmon were observed in the index reaches. The established escapement goal of 400–1,200 was achieved.

#### **Inseason Subsistence Harvest Monitoring**

Orutsararmiut Native Council (ONC) in coordination with ADF&G collect subsistence fishing reports from Bethel area fish camps in an attempt to understand salmon harvest timing and success. ONC staff visit area fish camps each week during the salmon season, share fisheries updates, and answer questions about research and management. In addition, this project provides an opportunity for subsistence fishermen to share information and feedback with managers. Project updates will be provided every Wednesday by ONC to the Kuskokwim River Salmon Management Working Group.

ADF&G Division of Subsistence conducted inseason surveys in the middle river communities of Kalskag, Aniak, Chuathbaluk, Crooked Creek, Red Devil, Sleetmute, and Stony River. Interviews were conducted between July 17 and July 27. A total of 210 households were surveyed (46% of the total). Interview questions were designed to understand what percent of subsistence salmon harvest has been completed and how much additional coho salmon will be needed to make up for harvest restrictions for Chinook salmon and chum salmon.

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