Assessment

Although Chinook and summer chum salmon entered the river early this year, both salmon runs appear to be tracking closer to their average run timings. The first Chinook salmon should have been near the Canadian border on June 28.

The first pulse of approximately 15,500 Chinook salmon lasted 4 days and should be near Stevens Village by July 1. A second 5-day pulse of approximately 27,500 Chinook salmon passed the sonar near Pilot Station beginning June 18 and should be near Ruby by June 30. A third pulse of Chinook began migrating past the sonar project on June 24 and is continuing to build. As of June 28, the cumulative Chinook salmon passage at the sonar project near Pilot Station was approximately 81,000 fish, which is below the historical cumulative average of 101,000 for this date. For average run timing years, the Chinook salmon run is approximately 66% complete at the sonar project near Pilot Station as of June 28. However, run timing assessment has been difficult this year due to the early entry of the first Chinook salmon and then subsequent delayed entry of substantial pulses of Chinook salmon.

Given data uncertainty associated with sonar passage and run timing estimates, the 2015 Chinook salmon run is on track to be near the lower end of the preseason outlook range of 118,000 to 140,000. A Chinook salmon run size of this magnitude is lower than average, but does have the potential to meet escapement goals and objectives. However, given the recent trend of low Yukon River Chinook salmon run sizes, it is still too early to project whether escapement goals will be met until Chinook salmon start showing up at escapement projects. At this point, the department is hopeful that the conservative management actions and sacrifices made by fishermen to date will result in attaining spawning escapements needed to sustain this Chinook salmon run for future generations.
Genetic mixed stock analysis (MSA) on the early group and first pulse of Chinook salmon past the sonar project near Pilot Station (May 30 to June 17) estimated that 50% of the fish were of Canadian-origin. The second pulse of Chinook salmon past the sonar project near Pilot Station (June 18 to June 25) estimated that 38% of the fish were of Canadian-origin. The genetic mixed stock analysis to date suggests a weaker Canadian run size than 2014. For more information about Yukon River inseason genetic MSA, please visit the ADF&G Gene Conservation Laboratory website at: [http://www.adfg.alaska.gov/index.cfm?adfg=fishinggeneconservationlab.yukonchinook_baseline](http://www.adfg.alaska.gov/index.cfm?adfg=fishinggeneconservationlab.yukonchinook_baseline)

Daily passage estimates of summer chum salmon at the sonar project have been in excess of 100,000 fish per day for the last couple of days. Subsistence reports and recent commercial harvest information also indicate large numbers of summer chum salmon are present in the lower river. The first, second, and third groups of summer chum salmon should be near Tanana, Koyukuk, and Kaltag, respectively. As of June 28, the cumulative summer chum salmon passage at the sonar project near Pilot Station was approximately 799,000 fish, which is below the historical cumulative median of 869,000 for this date. The summer chum salmon passage is projected to be approximately 50% complete by June 28.

**Assessment Projects**

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

8.5-Inch Set Gillnet: The LYTF cumulative Catch per Unit Effort (CPUE) for both the Middle Mouth and Big Eddy sites combined as of June 28 is 28.54. Operations have been altered from previous years, so caution should be taken when comparing current catch rates to historical catch rates.

8.25-Inch Drift Gillnet: The Big Eddy Chinook salmon drift test fishery began operations on May 24. The cumulative CPUE as of June 28 is 568.91, which is above the historical average of 321.95 for all years.

Given the need to conserve Chinook salmon, the department has adjusted the LYTF program operations in order to reduce the test fishery harvest of Chinook salmon. Any Chinook salmon healthy enough to be released from test nets have been released alive immediately. Any Chinook salmon caught in the test nets that are unable to be released are being distributed to village elders by the Tribal Councils. Currently, fewer set net sites are being fished than have been fished historically in an effort to further reduce Chinook salmon mortality in the LYTF program. These adjustments were recommended by fishermen at various pre-season planning meetings.

**Summer Chum Drift Test Fishery/ ADF&G, YDFDA**

5.5-Inch Drift Gillnet: The summer chum drift test fishery began operations on May 24 in the Big Eddy area of the South Mouth. The cumulative CPUE as of June 28 is 8,549.24, which is well above the historical median of 2,599.44 for this date.
Sonar Project near Pilot Station/ ADF&G  
The sonar project near Pilot Station has been fully operational since May 31. The first Chinook and summer chum salmon were counted at the sonar site on May 31 and May 30, respectively. Chinook salmon passage as of June 28 is estimated to be 81,202 fish which is below the historical cumulative average of 100,875 Chinook salmon for this date for normal run timing years. 

Summer chum salmon passage as of June 28 is estimated to be 798,758 fish which is above the historical cumulative median of 869,182 summer chum salmon for this date.

Rapids Video Test Fish / Zuray  
The Rapids video test wheel was operational at noon on June 13. The CPUE for June 22 was 44.31 Chinook salmon per 24 hours. No summer chum salmon were counted on June 22. The cumulative expanded counts as of June 22 are 128 Chinook salmon and two summer chum salmon. The Rapids video test wheel was discontinued on June 23 due to the Tozitna fire.

Andreafsky River Weir / USFWS  
The Andreafsky River weir began operations on June 17. As of June 28, 48 Chinook salmon were counted at the weir, which is below the historical cumulative average of 133 Chinook salmon for this date. As of June 28, 4,563 summer chum salmon were counted at the weir, which is well above the historical cumulative median of 2,180 fish for this date. The Sustainable Escapement Goal (SEG) for the Andreafsky River is 2,100–4,900 for Chinook salmon and greater than 40,000 for summer chum salmon.

Gisasa River Weir / USFWS  
The Gisasa River weir began operations on June 17. As of June 28, three Chinook salmon have been counted at the weir, which is below the historical cumulative average of 25 fish for this date. As of June 28, 2,340 summer chum salmon have been counted at the weir, which is well above the historical cumulative median of 637 fish for this date.

Anvik River Sonar / ADF&G  
The Anvik River sonar began operations on June 17. As of June 28, 37,194 summer chum salmon have been counted at the weir, which is slightly above the historical cumulative median of 32,369 fish for this date. The biological escapement goal for summer chum salmon is 350,000–700,000 fish past the sonar project.

Age Composition  
The Chinook salmon age composition from drift gillnets in the Pilot Station test fishery through June 25 was 19% age-4, 38% age-5, and 43% age-6 fish. The sample size was 255 fish, of which 33% were female. The proportion of age-5 was below average, while the proportions of age-6 and age-4 were above average, and the proportion of females was below average.

The Chinook salmon age composition from the 8.5-inch LYTF set nets through June 21 was 5% age-4, 20% age-5, 72% age-6, and 3% age-7 fish. The sample size was 314 fish, of which 51% were female. Similar to Pilot Station test fishery, the LYTF proportion of age-5 fish was below average and the proportions of age-6 and age-4 were above average. The proportion of females was slightly above average.
The chum salmon age composition from the 5.5-inch LYTF drift nets through June 27 was 30% age-4, 68% age-5, and 2% age-6 fish. The sample size was 429 fish, of which 51% were female. The proportion of age-4 was below average, the proportion of age-5 was above average, and the proportion of females was average.

The chum salmon age composition from the beach seine and dip net commercial fishery through period 13 was 1% age-3, 32% age-4, 65% age-5, and 2% age-6 fish. The sample size was 600 fish, of which 47% were female.

**Yukon River Summer Chum Salmon Radio Telemetry Project/ADF&G**

Tagging operations for the summer chum salmon radio telemetry research project began June 12 upriver from the community of Russian Mission. As of June 29, 478 summer chum salmon have been tagged and released. In addition to the radio tag, summer chum salmon will also have a white spaghetti tag located at the base of the dorsal fin. Tagged fish have been identified in the Bonasila, Anvik, Innoko and Nulato Rivers. Tagged fish are currently located near Hughes on the Koyukuk main stem and near Ruby on the Yukon main stem. The first aerial survey will be conducted this week unless smoke in the area is prohibitive. If a tagged summer chum salmon is harvested, please note the date, time, and location and return the tag to the address listed on the outside of the radio tag or contact Holly Carroll or Sean Larson with ADF&G (holly.carroll@alaska.gov or sean.larson@alaska.gov). Tagging operations will continue through July 27.

**Management Strategies**

A conservative management approach has been taken early in the summer fishing season given the weak return of Chinook salmon expected in 2015. Gear restrictions and subsequent subsistence fishing closures have been implemented on the mainstem of the Yukon River to protect an anticipated weak return of Chinook salmon. Similar conservation actions are being taken in the Koyukuk and Innoko Rivers.

The Chinook salmon run is currently tracking at the lower end of the preseason outlook of 118,000 – 140,000 total fish. However, current run size projection estimates based on sonar passage and historical run timing suggest the 2015 Chinook salmon run appears strong enough to meet escapement objectives. The Canadian run of Chinook salmon does appear to be weaker than 2014, so management efforts will remain conservative to balance summer chum salmon subsistence opportunities and continued protection of Canadian-origin Chinook salmon. Some very limited incidental harvest could be possible with gillnets restricted to six-inch or smaller mesh size. Any opportunities for subsistence fishing with restricted gillnets would be short openings and would be timed with an abundance of summer chum salmon in the area. The intent of these opportunities would be so that fishermen can more efficiently meet their subsistence needs for summer chum salmon, while minimizing the impact to the Chinook salmon run.

The 2015 summer chum salmon run is currently tracking below the preseason outlook, but is still average in size. Liberal summer chum salmon subsistence fishing time with selective gear types was provided in Districts 1 through 3 with dip nets only and in Subdistricts 4-A, 4-B, and 4C with dip nets
and live-release fish wheels. Summer chum salmon commercial fishing periods are also continuing with dip net and beach seine gear in Districts 1 and 2. All Chinook salmon are required to be released alive immediately while using these gear types.

The 2015 season is undoubtedly another challenging year for Yukon River fishermen. ADF&G and USFWS would like to extend thanks and appreciation to the fishermen of the Yukon River for their continuing efforts to conserve Chinook salmon.

Current Management

Subsistence Fishing Schedule:

Coastal District:
As in recent years, the Coastal District is being further subdivided into two management areas to allow for more management precision and flexibility. Fishermen are reminded that all marine waters between 1 and 3 miles offshore of District 1 are included in the Coastal District.

In the Southern Portion of the Coastal District, from the Naskonat Peninsula north to 62 degrees North latitude, subsistence salmon fishing is open 24 hours a day, seven days per week with gillnets restricted to 6-inch or smaller mesh size.

In the Northern Portion of the Coastal District, from 62 degrees North latitude to Point Romanof, including all marine waters, subsistence salmon fishing is currently closed until further notice.

District 1 (including the Black River):
Subsistence salmon fishing for summer chum salmon is currently open on the following schedule with dip net and beach seine gear:

- Monday, June 29, from 6:00 a.m. until 10:00 a.m. and from 12:00 p.m. noon until 11:59 p.m.
- Tuesday, June 30, from 6:00 a.m. until 10:00 a.m. and from 12:00 p.m. noon until 11:59 p.m.
- Wednesday, July 1, from 6:00 a.m. until 10:00 a.m. and from 12:00 p.m. noon until 11:59 p.m.

All Chinook salmon caught in dip net and beach seine gear must be released alive immediately.

District 2:
Subsistence salmon fishing for summer chum salmon is currently open on the following schedule with dip net and beach seine gear:

- Monday, June 29, from 6:00 a.m. until 10:00 a.m. and from 12:00 p.m. noon until 10:00 p.m.
- Tuesday, June 30, from 6:00 a.m. until 10:00 a.m. and from 12:00 p.m. noon until 10:00 p.m.
Wednesday, July 1, from 6:00 a.m. until 10:00 a.m. and from 12:00 p.m. noon until 10:00 p.m.

All Chinook salmon caught in dip net and beach seine gear must be released alive immediately.

District 3:
Subsistence fishing for summer chum salmon in District 3 is currently open 24 hours a day, seven days per week with dip net gear only. Subsistence dip net fishermen are required to immediately release Chinook salmon alive from this gear type.

Innoko River:
Subsistence fishing is currently closed until further notice to conserve Chinook salmon stocks in the Innoko River. During subsistence salmon fishing closures, gillnets greater than 4-inch mesh size must be removed from the water. Gillnets 4-inch or smaller mesh size not exceeding 60-feet in length may be used during the closure to harvest non-salmon species. If a salmon is caught in this gear type, it is legal to retain it.

Subdistrict 4-A Lower (from ¾ miles downstream of Old Paradise Village upstream to Stink Creek, which includes the mainstem Yukon River communities of Anvik and Grayling):

Subsistence salmon fishing is currently open 24 hours a day, seven days per week with dip nets and live-release fish wheels.

Subsistence salmon fishing for summer chum salmon in the Anvik Special Management Area (which includes the lower 12 miles of the Anvik River) is open 24 hours a day, seven days per week with dip nets and beach seine gear only.

Subsistence dip net and beach seine fishermen are required to immediately release Chinook salmon alive from these gear types. Fish wheels must be manned at all times of operation, or be equipped with a live box that must be checked at least once every six hours. All Chinook salmon must be released alive from fish wheels.

Subdistrict 4-A Upper (from Stink Creek upstream to Cone Point, which includes the mainstem Yukon River communities of Kaltag, Nulato, and Koyukuk):

Subsistence salmon fishing is open 24 hours a day, seven days per week with dip nets and live-release fish wheels.

Subsistence dip net fishermen are required to immediately release Chinook salmon alive from these gear types. Fish wheels must be manned at all times of operation, or be equipped with a live box that must be checked at least once every six hours. All Chinook salmon must be released alive from fish wheels.
Subdistricts 4-B and 4-C (from Cone Point to Illinois Creek, which includes the mainstem Yukon River communities of Galena and Ruby):

Subsistence salmon fishing is open 24 hours a day, seven days per week with dip nets and live-release fish wheels.

Subsistence dip net fishermen are required to immediately release Chinook salmon alive from these gear types. Fish wheels must be manned at all times of operation, or be equipped with a live box that must be checked at least once every six hours. All Chinook salmon must be released alive from fish wheels.

Koyukuk River:
Subsistence fishing is currently closed until further notice to conserve Chinook salmon stocks in the Koyukuk River.

During subsistence salmon fishing closures, gillnets greater than 4-inch mesh size must be removed from the water. Gillnets 4-inch or smaller mesh size not exceeding 60-feet in length may be used during the closure to harvest non-salmon species. If a salmon is caught in this gear type, it is legal to retain it.

Subdistricts 5-A, 5-B, and 5-C:
Subsistence salmon fishing in Subdistricts 5-A, 5-B, and 5-C is currently closed until further notice. During subsistence salmon fishing closures, fish wheels may not be operated and gillnets greater than 4-inch mesh size must be removed from the water. Gillnets 4-inch or smaller mesh size not exceeding 60-feet in length may be used during the closure to harvest non-salmon species. If a salmon is caught in this gear type, it is legal to retain it.

Subdistrict 5-D Lower (from an ADF&G regulatory marker two miles downstream of Waldron Creek upstream to the Hadweenzic River and including all adjacent tributaries):

Effective 8:00 p.m. Monday, June 29, subsistence fishing for salmon in Subdistrict 5-D Lower will be closed until further notice. During subsistence salmon fishing closures, fish wheels may not be operated and gillnets greater than 4-inch mesh size must be removed from the water. Gillnets 4-inch or smaller mesh size not exceeding 60-feet in length may be used during the closure to harvest non-salmon species. If a salmon is caught in this gear type, it is legal to retain it.

Subdistrict 5-D Middle (from the Hadweenzic River upstream to 22 Mile Slough and including the Porcupine River and all other adjacent tributaries):

Subsistence fishing in Subdistrict 5-D Middle is currently open 24 hours a day, seven days per week and fishermen may use fish wheels or gillnets with mesh size of 6 inches or less. Fish wheels must be manned at all times of operation, or be equipped with a live box that is checked at least once every six hours. All Chinook salmon caught in a fish wheel must be released to the water alive.

Effective 8:00 p.m. Friday, July 3, subsistence fishing for salmon in Subdistrict 5-D Middle will
be closed until further notice. During subsistence salmon fishing closures, fish wheels may not be operated and gillnets greater than 4-inch mesh size must be removed from the water. Gillnets 4-inch or smaller mesh size not exceeding 60-feet in length may be used during the closure to harvest non-salmon species. If a salmon is caught in this gear type, it is legal to retain it.

**Subdistrict 5-D Upper** (from 22 Mile Slough to the U.S./Canada border and including all adjacent tributaries):

Subsistence fishing in Subdistrict 5-D Upper is currently open 24 hours a day, seven days per week and fishermen may use fish wheels or gillnets with mesh size of 6 inches or less. Fish wheels must be manned at all times of operation, or be equipped with a live box that is checked at least once every six hours. All Chinook salmon caught in a fish wheel must be released to the water alive.

Effective 8:00 p.m. Sunday, July 5, subsistence fishing for salmon in Subdistrict 5-D Upper will be closed until further notice. During subsistence salmon fishing closures, fish wheels may not be operated and gillnets greater than 4-inch mesh size must be removed from the water. Gillnets 4-inch or smaller mesh size not exceeding 60-feet in length may be used during the closure to harvest non-salmon species. If a salmon is caught in this gear type, it is legal to retain it.

**Subdistricts 6-A and 6-B:**

Subsistence and personal use salmon fishing in Subdistricts 6-A and 6-B is currently open for two 42-hour fishing periods per week from 6:00 p.m. Mondays until 12:00 noon Wednesdays and from 6:00 p.m. Fridays until 12:00 noon Sundays.

The Kantishna River is currently open 24 hours a day, seven days per week for subsistence salmon fishing.

Fishermen in Subdistricts 6-A, including the Kantishna River, and 6-B may use fish wheels or gillnets with mesh size of 6 inches or less. Fish wheels must be manned at all times of operation, or be equipped with a live box that is checked at least once every six hours. All Chinook salmon caught in a fish wheel must be released to the water alive.

**Old Minto Area:**

Subsistence salmon fishing in the Old Minto Area is currently five days per week from 6:00 p.m. Fridays until 6:00 p.m. Wednesdays with 6-inch or smaller mesh size gillnets. Fishermen may use fish wheels, however, fish wheels must be manned at all times of operation, or be equipped with a live box that is checked at least once every six hours. All Chinook salmon must be released to the water alive.

**Subdistrict 6-C** (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 will remain closed until further notice to conserve Chinook salmon.
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 fishing is open 24 hours a day, seven days per week. Fishermen may use fish wheels or gillnets with a mesh size of 7.5 inches or less.

Commercial Fishing Schedule:

Commercial Fishing:

The Lower Yukon summer chum salmon dip net and beach seine commercial fishery began on Thursday, June 11, in District 1 and on Monday, June 15, in District 2. The preliminary commercial harvest in District 1 through June 28 is approximately 80,000 summer chum salmon with a reported 4,144 Chinook salmon released alive. The preliminary commercial harvest in District 2 through June 28 is approximately 89,100 summer chum salmon with a reported 3,518 Chinook salmon released alive.

District 1 (including the Black River) Commercial Fishing Schedule:
Concurrent subsistence and commercial summer chum salmon fishing in District 1 is currently open on the following schedule with beach seine and dip net gear only:

- Monday, June 29, from 12:00 p.m. noon until 11:59 p.m.
- Tuesday, June 30, from 12:00 p.m. noon until 11:59 p.m.
- Wednesday, July 1, from 12:00 p.m. noon until 11:59 p.m.

These will be 12-hour commercial fishing periods that are open concurrent with subsistence fishing times. All Chinook salmon caught in dip net and beach seine gear must be released alive immediately. Chinook salmon released alive from dip net and beach seine gear must be recorded on a fish ticket.

District 2 Commercial Fishing Schedule:
Concurrent subsistence and commercial summer chum salmon fishing in District 2 is currently open on the following schedule with beach seine and dip net gear only:

- Monday, June 29, from 12:00 p.m. noon until 10:00 p.m.
- Tuesday, June 30, from 12:00 p.m. noon until 10:00 p.m.
- Wednesday, July 1, from 12:00 p.m. noon until 10:00 p.m.

These will be 10-hour commercial fishing periods that are open concurrent with subsistence fishing times. All Chinook salmon caught in dip net and beach seine gear must be released alive immediately. Chinook salmon released alive from dip net and beach seine gear must be recorded on a fish ticket.

The subsistence fishing schedule and recorded fishery announcements will be available 24 hours a day at 1-866-479-7387 (toll free outside of Fairbanks); in Fairbanks, call (907) 459-7387. If you have any questions regarding this report, please call the ADF&G office in Emmonak at 949-1320.