

# **ALASKA DEPARTMENT OF FISH AND GAME**

## **DIVISION OF COMMERCIAL FISHERIES**

### **NEWS RELEASE**



*Cora Campbell, Commissioner*  
*Jeff Regnart, Director*



---

Contact:  
Steve Hayes, Area Management Biologist  
Amanda Wiese, Asst. Area Management Biologist  
Mike Parker, Asst. Area Management Biologist  
Phone: (907) 267-2105  
Fax: (907) 267-2442

Anchorage Area Office  
333 Raspberry Road  
Anchorage, Alaska 99518  
Date Issued: 9/30/11

### **2011 Preliminary Yukon River Summer Season Summary**

This informational letter provides a preliminary summer season summary of the 2011 Yukon Area Chinook and summer chum salmon fisheries. Subsistence and personal use harvests for 2011 are not available at this time. For management purposes, the Yukon River is divided into several fishing districts and subdistricts (Figure 1).

#### **2011 Preseason Outlook**

##### **Chinook Salmon**

The total Yukon River Chinook salmon run can be estimated by applying historical average proportions of Canadian-origin fish in the total run to the outlook estimated for the Canadian component of the run. The average proportion of Canadian origin fish in the total run is approximately 50%. The 2011 preseason outlook for Canadian-origin Chinook salmon, as adopted by the Joint Technical Committee of the Yukon River Panel (JTC 2011) was 65,000 to 89,000 fish. Therefore, the drainage-wide run outlook based on this Canadian-origin model estimate, which attempts to account for low productivity since 2007, was 130,000–178,000 Chinook salmon. Thus, the 2011 Yukon River Chinook salmon run would likely be poor to below average.

It was therefore prudent to enter the 2011 season with the outlook that conservation measures would be required during the subsistence fisheries in an effort to share the available subsistence harvest and meet escapement goals. It was unlikely that there would be a directed Chinook salmon commercial fishery in 2011 on the mainstem river, but there was a potential opportunity to commercially harvest less than 1,000 Chinook salmon on the Tanana River because the Tanana River is managed independently as a terminal fishery.

##### **Summer Chum Salmon**

Yukon River summer chum salmon generally exhibit strong run size correlations among adjacent years, and it was expected that the total run in the Yukon River would be similar to the 2010 run

of approximately 1.6 million fish. In 2010 there was a good showing of age-3 fish from the 2007 brood year which indicated an upward trend in run size if the number of age-4 fish returning in 2011 was above average. The high seas Bering Arctic Subarctic Integrated Surveys (BASIS) study indicated a decline in chum salmon in 2004 and 2005, but 2006 and 2007 results showed an increase in abundance. No BASIS survey was conducted in 2008. Chum salmon collected in the BASIS study in 2007 would correspond to the age-5 returns in 2011. A collaborative effort between ADF&G and NOAA is in progress to test the applicability of BASIS juvenile salmon indices for run size forecasting.

The 2011 summer chum salmon run was expected to be average and was anticipated to provide for escapements, a normal subsistence harvest, and a surplus for commercial harvest. Summer chum salmon runs have provided for a harvestable surplus in each of the last 8 years (2003–2010). The commercially harvestable surplus was expected to range from 300,000 to 600,000 summer chum salmon. The actual commercial harvest of summer chum salmon in 2011 was anticipated to be affected by conservative management actions taken to protect a potentially poor Chinook salmon run, because Chinook salmon are incidentally harvested in chum salmon directed fisheries.

### **2011 Preseason Management Strategy**

Chinook and summer chum salmon management plans guide ADF&G management actions. Because of recent poor Chinook salmon runs, the Yukon River Drainage Fisheries Association (YRDFA) facilitated an in-person preseason meeting to provide managers, fishermen, tribal council representatives, and other stakeholders the opportunity to share information, provide input, and discuss management options. The purpose of the meeting was to work cooperatively to identify options and management strategies for 2011 that would assist in getting adequate numbers of fish to the spawning grounds, particularly to Canada, should the Chinook salmon run be similar to the unexpected low runs of 2007 and 2008. Based on input from this meeting, a preseason management plan was developed for the Yukon River summer season fishery. The preseason plan included the following key components.

- Initial management would be based on preseason projections and shift to inseason assessment information as runs developed.
- Escapement in both Alaska and Canada would be maintained as the highest management priority, with the Canadian Interim Management Escapement Goal (IMEG) of 42,500–55,000 Chinook salmon as the highest concern.
- The preseason border passage target was 50,000 Chinook salmon based upon the IMEG and harvest sharing agreement.
- Providing for subsistence fishing opportunity would remain the highest priority use.
- It was unlikely there would be any directed Chinook salmon commercial openings.
- The regulatory subsistence salmon fishing schedule would begin June 6 in District 1 and be implemented chronologically with the upriver migration.
- To conserve the greatest number of Canadian-origin Chinook salmon, fishing time on the first pulse of Chinook salmon would be reduced. Beginning in District 1, one fishing period would be closed (approximately 5-day closure) and this action would be similarly implemented in upriver fishing districts and subdistricts based on migratory timing.
- If inseason assessment indicated Chinook salmon run strength continued to be poor after closing the first period, an additional period may be closed or subsistence fishing time may be reduced.

- In the sport fishery for Chinook salmon, the bag and possession limit in Yukon River tributaries (excluding the Tanana River drainage) would be reduced from three to one fish. No retention of Chinook salmon would be permitted in the mainstem Yukon River.
- The Tanana River personal use and sport fisheries would be managed to meet escapement objectives for Chena and Salcha rivers.
- A surplus of summer chum salmon was anticipated above escapement and subsistence needs. However, the extent of a directed chum commercial fishery would be dependent upon the strength of the Chinook salmon run.
- No sale of incidental Chinook salmon harvested during summer chum commercial fishing periods was anticipated.
- Beginning in 2011, in **Districts 1-6** and the **Coastal District**, which includes the villages of Chevak, Hooper Bay, and Scammon Bay, a person may not take salmon with a gillnet that has a mesh size larger than 7.5 inches. Fishermen can use a mesh size of 7.5 inches or less.

Since 2001, the subsistence salmon fishery has operated on a schedule established by the Board of Fisheries and implemented by ADF&G, which is chronologically consistent with migratory timing as the run progresses upstream. Subsistence fishing is open 7 days per week until the schedule is established. The subsistence salmon fishing schedule is based on current or past fishing schedules and provides reasonable opportunity for subsistence salmon fishing during years of normal to below average runs. The objectives of the schedule are to: 1) reduce harvest early in the run when there is a higher level of uncertainty, 2) spread the harvest throughout the run to reduce harvest impacts on any particular component of the run, and 3) distribute subsistence fishing opportunity among all users during years of low salmon runs.

Table 1.–Yukon Area subsistence salmon fishing schedule, 2011.

**Note: this schedule was subject to change depending on run strength.**

Area	Reduced Regulatory Subsistence Fishing Periods	Approximate Schedule to Begin	Days of the Week
Coastal District	7 days/week	All Season	M/T/W/TH/F/SA/SU – 24 hours
District Y-1	Two 36-hour periods/week	June 6	Mon. 8 pm to Wed. 8 am /Thu. 8 pm to Sat. 8 am
District Y-2	Two 36-hour periods/week	June 8	Wed. 8 pm to Fri. 8 am / Sun. 8 pm to Tue. 8 am
District Y-3	Two 36-hour periods/week	June 12	Wed. 8 pm to Fri. 8 am / Sun. 8 pm to Tue. 8 am
Subdistrict Y-4-A	Two 48-hour periods/week	June 15	Sun. 6 pm to Tue. 6 pm / Wed. 6 pm to Fri. 6 pm
Subdistricts Y-4-B, C	Two 48-hour periods/week	June 22	Sun. 6 pm to Tue. 6 pm / Wed. 6 pm to Fri. 6 pm
Koyukuk and Innoko Rivers	7 days/week	All Season	M/T/W/TH/F/SA/SU – 24 hours
Subdistricts Y-5-A, B, C	Two 48-hour periods/week	June 28	Tue. 6 pm to Thu. 6 pm /Fri. 6 pm to Sun. 6 pm
Subdistrict Y-5-D	7 days/week	All Season	M/T/W/TH/F/SA/SU – 24 hours
District Y-6	Two 42-hour periods/week	All Season	Mon. 6 pm to Wed. Noon /Fri. 6 pm to Sun. Noon
Old Minto Area	5 days/week	All Season	Friday 6 pm to Wednesday 6 pm

## 2011 Assessment

The department monitors a suite of assessment projects that provide critical salmon run timing, relative abundance, and stock composition information. Inseason run assessment includes abundance indices from test fisheries, sonar passage estimates, subsistence and commercial

harvest data, and age, sex, and length (ASL) data. In addition, genetic samples collected were analyzed inseason to investigate stock contribution for both chum and Chinook salmon. Information from multiple assessment projects were corroborated when possible to provide the best possible assessment.

Initial assessment in the lower river is critical to implementing an inseason management plan to operate an orderly fishery throughout the drainage. Three projects on the lower river provide inseason abundance and timing information: the Lower Yukon Test Fishery (LYTF), a set net project designed primarily designed to assess Chinook salmon run timing operated near Emmonak; a summer chum salmon directed drift gillnet test fishery using 5.5 inch mesh; and the Pilot Station sonar which provides mainstem abundance estimates for Chinook and summer chum salmon.

Breakup occurred in the lower river on May 22, which is average. The LYTF was operational at the Big Eddy site on May 30 and at the Middle Mouth site on June 2. On June 3, the first Chinook salmon was caught in the LYTF and the first Chinook salmon subsistence catch was reported in the lower river. An early group of Chinook and chum salmon entered the river from June 5 through June 9 as indicated by an increase in catch rates recorded by the LYTF and reports from subsistence fishermen. Due to difficulties experienced at Big Eddy caused by high water and excessive drift, additional drift test fishing was conducted throughout the season in the South Mouth with 8.25 inch mesh gillnets for Chinook salmon to supplement set gillnet test fishing catches. The first pulse of Chinook salmon was observed in the LYTF project on June 14–18, a second pulse on June 20–23, and a third on June 27–31. The LYTF concluded operations on July 14 with a cumulative CPUE of 15.34, which was below the average of 22.49 at this date. The first quarter point, midpoint, and third quarter point were June 16 (1 day late), June 21 (1 day early), and June 28 (average) respectively.

The Pilot Station sonar project preliminary cumulative passage estimate was 107,300 Chinook salmon, compared to the average<sup>1</sup> of about 159,000. The first quarter point, midpoint, and third quarter point were on June 19, June 23, and July 1 respectively. The sonar assessment provided an estimate for the first pulse of Chinook salmon of approximately 20,800 fish. The estimate for the second pulse was about 37,000 fish and the third pulse came in lower than anticipated at 17,300 fish.

The summer chum salmon drift project in the Lower Yukon River indicated pulses entering the mouth on approximately June 5, June 14, June 20, and June 28. The largest of these pulses passed Pilot Station sonar on June 21 and contained approximately 580,300 summer chum salmon. The summer chum salmon run comprised approximately 1.8 million fish passing Pilot Station sonar, which was above the median of 1.3 million for the project. The first quarter point, midpoint, and third quarter point were June 22, June 26, and July 4, respectively.

Though management actions are initially implemented based upon the lower river monitoring projects, assessment continues upriver using tools such as test fish wheels, subsistence harvest reports, weirs, counting towers, aerial surveys, and sonar projects. All projects along the Yukon River and its tributaries contribute to informing management actions.

---

<sup>1</sup> Average includes years 1995, 1997, 1999, 2002–2008, and 2010. The sonar did not operate in 1996 and project difficulties occurred in 2000, 2001, and 2009.

## **2011 Subsistence Fishery**

According to preseason management strategies and inseason assessment through the early portion of the run, the Chinook salmon run was expected to be large enough to provide for escapement but not large enough to meet subsistence needs.

Consistent with preseason management strategies, a conservative management plan was initiated in District 1 and the northern portion of the Coastal District on June 13. Based upon historical run timing and the current inseason information, a subsistence salmon fishing period was cancelled to protect the first pulse of Chinook in each fishing district and subdistrict based on migratory timing. As the run developed it became evident that the Chinook salmon run size would likely be at or below the lower end of preseason projections. Consequently, it was necessary to protect the second pulse of Chinook salmon. An additional two subsistence periods were reduced by half in District 1 and an additional subsistence period in Districts 2-5 was cancelled to ensure that escapement goals were met (Table 2).

Furthermore, beginning June 27 in District 1 and June 29 in District 2, the mesh size during subsistence fishing periods was restricted to six inch or smaller for the remainder of the summer season to provide further protection on the third pulse of Chinook salmon as it passed through the districts. This management action was taken with the intent that Chinook salmon incidentally harvested during summer chum directed commercial fishing periods in these districts would be used for subsistence purposes, which would help offset a reduction in subsistence fishing opportunity (Table 2).

Some subsistence fishermen were able to take advantage of the early Chinook salmon throughout the drainage, but many delayed harvest effort, preferring better processing weather and higher abundance later in the run. Preliminary reports from fishermen indicate that management actions taken later in the run to reduce the subsistence harvest of Chinook salmon resulted in many fishermen throughout the drainage not meeting their subsistence needs. Subsistence harvest surveys are currently being conducted by the department and the 2011 harvest information is not available at this time.

## **2011 Commercial Fishery**

Due to the uncertainty concerning Chinook salmon run strength and the need to fulfill the Canadian border passage obligation, meet Alaska escapement needs, and provide for subsistence uses, management of the Chinook salmon commercial fishery continued to follow the conservative preseason management strategy. No commercial periods targeting Chinook salmon were allowed in 2011 in the Yukon River mainstem or in the Tanana River.

In an effort to reduce incidental harvest of Chinook salmon during a poor run, management actions regarding the summer chum commercial salmon fishery were delayed until near the midpoint in the Chinook salmon run at LYTF. At that time, a harvestable surplus of summer chum had been identified as a total run size of approximately 2 million summer chum salmon was projected based on Pilot Station sonar. The first summer chum directed commercial periods took place June 24 in District 1 and June 26 in District 2. Gillnet gear was restricted to 6-inch or smaller mesh. Concurrent subsistence and commercial fishing periods in Districts 1 and 2 were instituted intermittently throughout the season, primarily early in the summer chum salmon commercial season when the subsistence schedule was still in effect. The intent of these

concurrent openings was to decrease the amount of time that Chinook salmon were susceptible to harvest (Table 3).

When it appeared the third pulse of Chinook salmon was not developing as expected, the department took further measures to provide commercial summer chum salmon harvest opportunities while still protecting Chinook salmon. The area open in the third, fourth, fifth, and sixth periods in District 1 was restricted to the South Mouth only. This action was taken because Chinook salmon abundance was low in the South Mouth and Chinook salmon were entering the river primarily through the North and Middle mouths throughout the season. The area open to commercial fishing included waters from the lower point of Head of Passes downstream to Chris Point, both of which were identified by an ADF&G regulatory markers, and included Black River, Kwiguk Pass, and coastal waters from Chris Point to one mile north of Kwiguk Pass. North and Middle Mouth passes north of the mainstem south mouth were closed to commercial fishing. The third commercial fishing period in District 2 was delayed until July 6 because of the high abundance of Chinook salmon in the district. Once it was expected that most of the third pulse of Chinook salmon was in the upstream portion of District 2, the department scheduled two periods in which the fishing area was limited to downstream of the Andreafsky River (period 3), and from downstream of the slough at Pilot Station (period 4). The department scheduled eleven commercial fishing periods in District 1 and nine in District 2.

The sale of incidentally caught Chinook salmon was not allowed during the summer season because subsistence fishing had been restricted during the season in Districts 1-5, and this action helped ensure escapement goals would be met. Fishermen could release any incidentally caught live Chinook salmon or use them for subsistence purposes. It was required to report on fish tickets any Chinook salmon caught but not sold. A total of 4,083 Chinook salmon were incidentally harvested in Districts 1 and 2 during the summer season. The prohibition of Chinook salmon sales was lifted partway through the fall season. A total of 35 Chinook salmon were caught but not sold and 64 Chinook salmon were sold in District 1, and 45 Chinook salmon were caught and sold in District 2 in the fall season (Tables 3 and 4). The preliminary cumulative summer chum salmon harvest for Districts 1 and 2 combined was 266,510 fish (Table 3). The summer chum salmon harvest was 214% above the 2001–2010 average harvest of 84,764 fish (Table 5).

In Subdistrict 4-A, one buyer had expressed interest in harvesting summer chum salmon prior to the season, but withdrew interest just before the season would have begun. Because there were no buyers interested in this area, there were no commercial fishing periods scheduled.

District 6 is managed using inseason assessment information provided by multiple projects operated in the Tanana River drainage. Run assessment was difficult this season due to high water and drift that hampered the operation of projects on the Chena, Salcha and Goodpaster Rivers. However, a harvestable surplus of summer chum salmon was identified based upon subsistence harvest information and the Nenana test fish wheel, as well as indications from lower river genetics and assessment data. Based upon this surplus and market interest, the department scheduled the first commercial fishing period to target chum salmon in District 6 on July 18. As in Districts 1 and 2, the sale of incidentally caught Chinook salmon was not allowed. The department scheduled eleven commercial fishing periods and the preliminary cumulative harvest was 8,651 summer chum salmon (Table 3).

The total commercial harvest for Districts 1, 2, and 6 combined was 275,161 summer chum salmon, which is 163% above the 2001–2010 average harvest of 104,579 fish (Table 5).

## **2011 Fishing Effort and Exvessel Value**

A total of 408 permit holders participated in the summer chum salmon fishery, approximately 15% below the 2001–2010 average of 532 permit holders (Table 6). The Lower Yukon Area (Districts 1–3) and Upper Yukon Area (Districts 4–6) are separate Commercial Fisheries Entry Commission (CFEC) permit areas. A total of 403 permit holders fished in the Lower Yukon Area in 2011, which was approximately 21% below the 2001–2010 average of 513. In the Upper Yukon Area, 5 permit holders fished, which was approximately 71% below the 2001–2010 average of 17.

Yukon River fishermen in Alaska received an estimated \$1.3 million for their summer chum salmon harvest in 2011, approximately 438% above the 2001–2010 average of \$244,000 (Table 7). Lower Yukon River fishermen received \$0.75 for summer chum salmon. The estimated average income for Lower Yukon Area fishermen in 2011 was \$3,221.

Upper Yukon Area fishermen received an average of \$0.26 per pound for summer chum salmon sold in the round. The average price paid in the Upper Yukon Area was slightly above the 2001–2010 average of \$0.25 per pound (Table 7). No Chinook salmon were sold in the Upper Yukon Area. The average income for Upper Yukon Area fishermen that participated in the 2011 fishery was \$2,593.

## **2011 Age and Sex Composition**

### **Test Fisheries**

The Chinook salmon age composition from the 8.5 inch LYTF set nets through the end of season was 1% age-4, 32% age-5, 63% age-6, and 4% age-7 fish. The sample size was 999 fish. The percentages of age-5 and age-6 fish were near average and females comprised 52% of the sample, also average.

The summer chum salmon age composition from the 5.5 inch LYTF drift nets through the end of season was less than 1% age-3, 44% age-4, 56% age-5, and less than 1% age-6 fish. The sample size was 1,493 fish. The percentage of age-4 fish was average and the percentage of age-5 fish were slightly above average. Females comprised 63% of the sample, which is above average.

The Chinook salmon age composition from the 7.5 inch Mountain Village drift gillnet test fishery was 1% age-4, 59% age-5, and 39% age-6 fish. The sample size was 370 fish. Females comprised 32% of the sample.

The summer chum salmon age composition from the 5.5 inch Dall Point drift gillnet test fishery was 57% age-4 and 43% age-5 fish. The sample size was 205 fish. Females comprised 22% of the sample.

Age composition data from other projects are not yet available.

### **Subsistence Harvest**

Samples from the subsistence harvest in Districts 1 and 2 were obtained throughout the season from subsistence fishermen working in conjunction with the Association of Village Council Presidents (AVCP). The Chinook salmon age composition from the Districts 1 and 2 subsistence harvest was 8% age-4, 67% age-5, 25% age-6, and 1% age-7 fish. The sample size was 254 fish. Females comprised 19% of the sample.

## Commercial Harvest

The Chinook salmon age composition, sampled from the incidental catch during the Districts 1 and 2 commercial harvest was 38% age-4, 41% age-5, 20% age-6, and 1% age-7 fish. The sample size was 431 fish. Females comprised 18% of the sample.

The summer chum salmon age composition from the Districts 1 and 2 commercial harvest was less than 1% age-3, 53% age-4, 46% age-5, and 1% age-6 fish. The sample size was 1,731 fish. Females comprised 41% of the sample.

The summer chum salmon age and sex composition from the District 6 commercial harvest are not available at this time.

## 2011 Escapement

### Chinook Salmon

Chinook salmon escapement goals for the East Fork and West Fork Andreafsky Rivers were achieved. However, the Anvik River escapement goal was not met. Season cumulative counts on the Gisasa and Henshaw Rivers were above average. High water conditions on the Chena, Salcha, and Goodpaster Rivers precluded counting for much of the season. Aerial surveys of the Salcha River were conducted July 21 and July 25. A total of 3,537 Chinook salmon were counted during these surveys, which meets the lower end of the Salcha River Tower escapement goal for this system. Preliminary Chinook salmon passage at Eagle sonar is 50,780 fish, yielding a preliminary border passage of approximately 49,780 fish. These numbers, however, are subject to change with post season data analysis. Selected 2011 escapement estimates for tributaries with goals were as follows:

<b>Stream</b>	<b>Current Goal</b>	<b>Type of Goal</b>	<b>2011 Escapement</b>
East Fork Andreafsky River Weir	2,100–4,900	SEG	5,213
West Fork Andreafsky River Aerial	640–1,600	SEG	1,173
Anvik River Index Aerial	1,100–1,700	SEG	501
Nulato River Aerial (Forks Combined)	940–1,900	SEG	1,401
Chena River Tower	2,800–5,700	BEG	195 <sup>1</sup>
Chena River Aerial	N/A		449
Salcha River Tower	3,300–6,500	BEG	N/A
Salcha River Aerial	N/A		3,537
Canadian Border	42,500–55,000	IMEG <sup>2</sup>	49,780 <sup>3</sup>

<sup>1</sup> Project operations were hindered by high water conditions for much of the season.

<sup>2</sup> The US/Canada Yukon River Panel agreed to a 1-year Canadian Interim Management Escapement Goal (IMEG) of 42,500–55,000 Chinook salmon based on the Eagle sonar program. In order to meet this goal, the passage at Eagle sonar must include a minimum of 42,500 fish for escapement, provide for a subsistence harvest in the community of Eagle upstream of the sonar (approximately 1,000-2,000 fish), and incorporate Canadian harvest sharing as dictated in the US/Canada Yukon River treaty (20%-26% of the total allowable catch).

<sup>3</sup> Data are preliminary.



## Summer Chum Salmon

Most summer chum salmon producing tributaries experienced above average escapement. The East Fork Andreafsky SEG and Anvik BEG were achieved. Counts at the Gisasa and Henshaw Rivers were above average. Salcha River escapement as assessed by tower counts was near average; however, because this project experienced problems due to high water conditions, it is likely that these counts were very conservative. Escapement on the Chena River was impossible to assess because of environmental conditions. Selected 2011 escapement estimates for tributaries were as follows:

<b>Stream</b>	<b>Current Goal</b>	<b>Type of Goal</b>	<b>2011 Escapement</b>
East Fork Andreafsky River Weir	> 40,000	SEG	100,473
Anvik River Sonar	350,000-750,000	BEG	642,527
Gisasa River Weir	N/A		95,796
Henshaw Creek Weir	N/A		248,247
Chena River Tower	N/A		333 <sup>1</sup>
Chena River Aerial	N/A		4,600
Salcha River Tower	N/A		31,002
Salcha River Aerial	N/A		1,107

<sup>1</sup> Project operations were hindered by high water conditions for much of the season.

## Canadian Fisheries

The preseason outlook was for a run of approximately 65,000 to 89,000 Canadian-origin Chinook salmon, and Canadian fishery managers conducted Chinook salmon fisheries according to available abundance and international harvest sharing provisions. Based on the projected border passage of between 31,000 and 51,000 Chinook salmon, Department of Fisheries and Oceans (DFO) managers classified the Chinook salmon run to be in the “yellow zone”, which indicates that some fisheries would be restricted to ensure an adequate spawning escapement. First Nations fishermen were asked to reduce their harvest to about two-thirds of normal. Beginning July 9, the sport fishery catch was varied to zero, and beginning July 29 all angling was closed on Tatchun Creek. Once it was projected that Chinook salmon border passage would meet escapement and subsistence harvest needs, DFO informed First Nations fishermen that they could harvest Chinook salmon at their normal level, and restrictions on the sport fishery were relaxed. The domestic and commercial fishery remained closed throughout the season. The First Nation harvest is approximately 3,600 Chinook salmon to date.

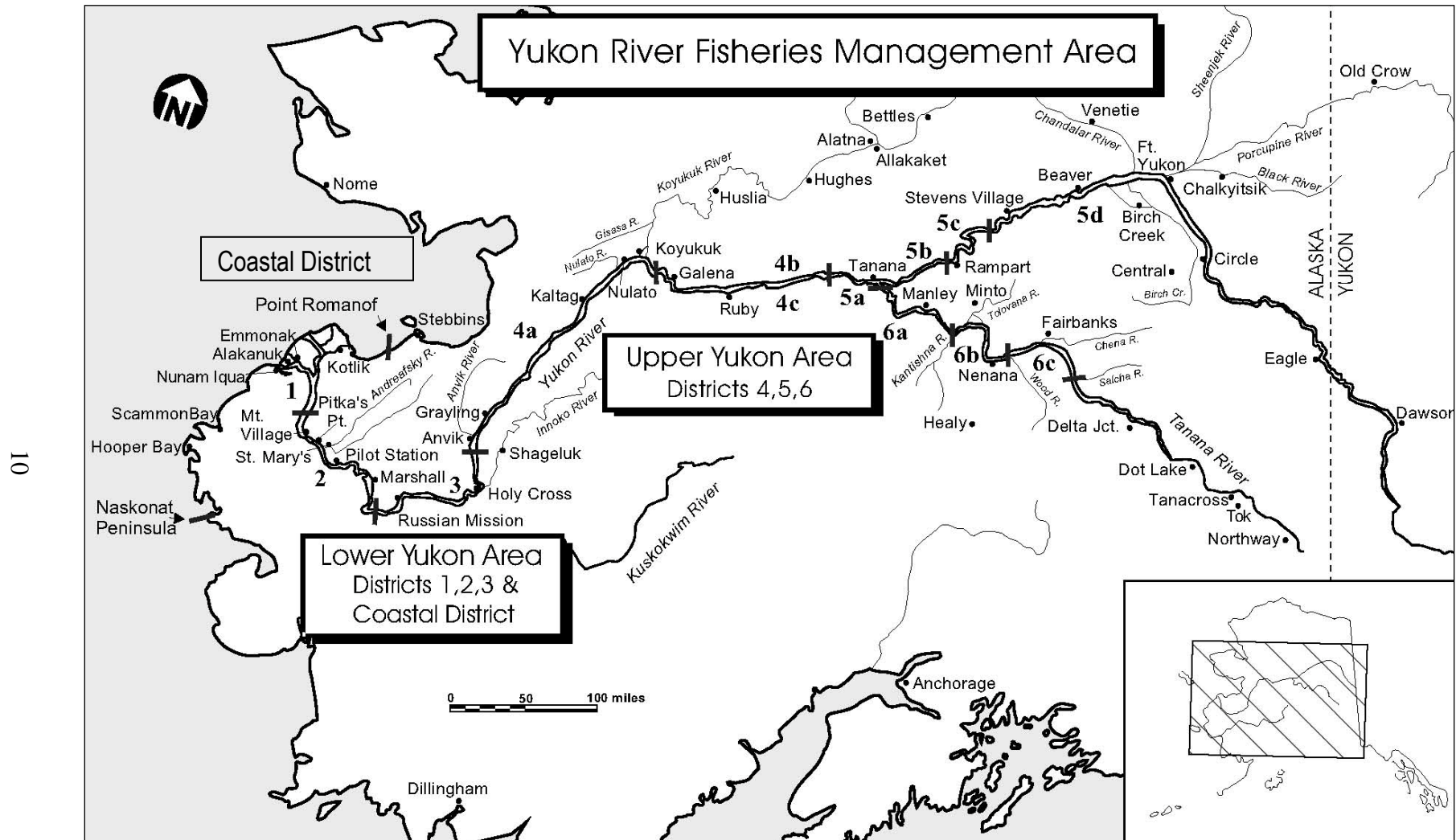


Figure 1.—Yukon Area communities and fishing districts.

Table 2.–2011 Yukon River summer season subsistence fishing schedule.

	Lower Yukon River						Upper Yukon River							Tanana	
	Coastal District		District 1	District 2	District 3	Sub 4A Lower	Sub 4A Upper	Sub 4B / 4C	Sub 5A/5B / 5C	Sub 5D Lower	Sub 5D Middle	Sub 5D Upper below Charley River	Sub 5D Upper above Charley River		
	Northern	Southern													
Wed. 1-Jun	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	
Thu 2-Jun	Open		Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Closed
Fri 3-Jun	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open 6 p.m.
Sat 4-Jun	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open
Sun 5-Jun	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Close 12 noon
Mon 6-Jun	Open% in. max	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open 6 p.m.
Tue 7-Jun	Open% in. max	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open
Wed 8-Jun	Open% in. max	Open	Close 8 a.m.	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Close 12 noon
Thu 9-Jun	Open% in. max	Open	Open 8 p.m.	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Closed
Fri 10-Jun	Open% in. max	Open	Open	Close 8 a.m.	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open 6 p.m.
Sat 11-Jun	Open% in. max	Open	Closed	Closed	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open
Sun 12-Jun	Open% in. max	Open	Closed	Open 8 p.m.	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Close 12 noon
Mon 13-Jun	Open	Close 8 p.m.	Closed	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open 6 p.m.
Tue 14-Jun	Open	Closed	Closed	Close 8 a.m.	Close 8 a.m.	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open
Wed 15-Jun	Open	Closed	Closed	Closed	Open 8 p.m.	Open	Open	Open	Open	Open	Open	Open	Open	Open	Close 12 noon
Thu 16-Jun	Open	Open 2 p.m.	Open 8 p.m.	Closed	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Closed
Fri 17-Jun	Open	Open	Open	Closed	Close 8 a.m.	Close 6 p.m.	Close 6 p.m.	Open	Open	Open	Open	Open	Open	Open	Open 6 p.m.
Sat 18-Jun	Open	Open	Close 8 a.m.	Closed	Closed	Closed	Closed	Open	Open	Open	Open	Open	Open	Open	Open
Sun 19-Jun	Open	Open	Closed	Open 8 p.m.	Closed	Open 6 p.m.	Open 6 p.m.	Open	Open	Open	Open	Open	Open	Open	Close 12 noon
Mon 20-Jun	Open	Open	Closed	Open	Closed	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open 6 p.m.
Tue 21-Jun	Open	Open 2 p.m.	Open 8 a.m.	Closed	Closed	Close 6 p.m.	Close 6 p.m.	Open	Open	Open	Open	Open	Open	Open	Open
Wed 22-Jun	Open	Open	Close 8 a.m.	Closed	Open 8 p.m.	Closed	Open 6 p.m.	Open	Open	Open	Open	Open	Open	Open	Close 12 noon
Thu 23-Jun	Open	Open	Closed	Closed	Open	Closed	Open	Open	Open	Open	Open	Open	Open	Open	Closed
Fri 24-Jun	Open	Open	Open 6 p.m.	Closed	Close 8 a.m.	Closed	Close 6 p.m.	Close 6 p.m.	Open	Open	Open	Open	Open	Open	Open 6 p.m.
Sat 25-Jun	Open	Open	Close 12 noon	Closed	Closed	Closed	Closed	Closed	Open	Open	Open	Open	Open	Open	Open
Sun 26-Jun	Open	Open	Closed	Open 8 p.m.	Closed	Open 6 p.m.	Closed	Open 6 p.m.	Open	Open	Open	Open	Open	Open	Close 12 noon
Mon 27-Jun	Open	Open	Open 8 p.m.	Open	Closed	Open	Closed	Open	Open	Open	Open	Open	Open	Open	Open 6 p.m.
Tue 28-Jun	Open	Open	Open	Close 8 a.m.	Closed	Close 6 p.m.	Closed	Close 6 p.m.	Open	Open	Open	Open	Open	Open	Open
Wed 29-Jun	Open	Open	Close 8 a.m.	Open 8 p.m.	Open 8 p.m.	Closed	Open 6 p.m.	Closed	Close 6 p.m.	Open	Open	Open	Open	Open	Close 12 noon
Thu 30-Jun	Open	Open	Open 8 p.m.	Open	Open	Closed	Open	Closed	Closed	Open	Open	Open	Open	Open	Closed
Fri 1-Jul	Open	Open	Open	Close 8 a.m.	Close 8 a.m.	Closed 6 p.m.	Closed	Closed	Closed	Open	Open	Open	Open	Open	Open 6 p.m.
Sat 2-Jul	Open	Open	Close 8 a.m.	Closed	Closed	Closed	Closed	Closed	Closed	Open	Open	Open	Open	Open	Open
Sun 3-Jul	Open	Open	Closed	Open 8 p.m.	Open 8 p.m.	Open 6 p.m.	Open	Open	Open 6 p.m.	Closed	Close 6 p.m.	Open	Open	Open	Close 12 noon
Mon 4-Jul	Open	Open	Open 8 p.m.	Open	Open	Open	Closed	Open	Open	Open	Closed	Open	Open	Open	Open 6 p.m.
Tue 5-Jul	Open	Open	Open	Close 8 a.m.	Close 8 a.m.	Close 6 p.m.	Closed	Close 6 p.m.	Open	Closed	Closed	Open	Open	Open	Open
Wed 6-Jul	Open	Open	Close 8 a.m.	Open 8 p.m.	Open 8 p.m.	Open 6 p.m.	Open 6 a.m.	Closed	Close 6 p.m.	Closed	Open	Open	Open	Open	Close 12 noon
Thu 7-Jul	Open	Open	Open 2 p.m.	Open	Open	Open	Open	Closed	Closed	Closed	Closed	Close 6 p.m.	Open	Open	Closed
Fri 8-Jul	Open	Open	Close 3 a.m.	Close 8 a.m.-6pm	Close 8 a.m.	Close 6 p.m.	Close 6 p.m.	Closed	Closed	Open 6 p.m.	Closed	Open	Open	Open	Open 6 p.m.
Sat 9-Jul	Open	Open	Open 6 p.m.	Close 9 p.m.	Closed	Closed	Closed	Closed	Closed	Open	Closed	Open	Open	Open	Open
Sun 10-Jul	Open	Open	Close 4 p.m.	Closed	Open 8 p.m.	Open 6 p.m.	Open 6 p.m.	Open 6 p.m.	Closed	Open	Closed	Open	Open	Open	Close 12 noon
Mon 11-Jul	Open	Open	Closed	Open 12-6pm	Open	Open	Open	Open	Open 6 p.m.	Close 6 p.m.	Closed	Open	Open	Open	Open 6 p.m.
Tue 12-Jul	Open	Open	Open 10 a.m.	Open 3 p.m.	Close 8 a.m.	Close 6 p.m.	Close 6 p.m.	Close 6 p.m.	Open	Closed	Open 6 p.m.	Close 6 p.m.	Close 6 p.m.	Open	
Wed 13-Jul	Open	Open	Close 6 a.m., open noon	Close noon	Open 8 p.m.	Open 6 p.m.	Open 6 p.m.	Open 6 p.m.	Close 6 p.m.	Closed	Open	Closed	Closed	Closed	Close 12 noon
Thu 14-Jul	Open	Open	Close 3 a.m.	Open 9 a.m.	Open	Open	Open	Open	Closed	Closed	Closed 6 p.m.	Open	Closed	Closed	Closed
Fri 15-Jul	Open	Open	Open 3 a.m.	Close 6 a.m.	Close 8 a.m.	Close 6 p.m.	Close 6 p.m.	Close 6 p.m.	Open 6 p.m.	Open 6 a.m.	Closed	Closed	Closed	Closed	Open 6 p.m.
Sat 16-Jul	Open	Open	Open	Open 3 a.m.	Closed	Closed	Closed	Closed	Open	Open	Closed	Closed	Closed	Closed	Open
Sun 17-Jul	Open	Open	Open	Close 3 a.m.	Open 8 p.m.	Open 6 p.m.	Open 6 p.m.	Open 6 p.m.	Close 6 p.m.	Open	Open 6 p.m.	Open 6 p.m.	Open 6 p.m.	Open 6 p.m.	Close 12 noon
Mon 18-Jul	Open	Open	Open	Open 3 a.m.	Open	Open	Open	Open	Closed	Open	Open	Open	Open	Open	Open 6 p.m.
Tue 19-Jul	Open	Open	Open	Open	Close 8 a.m.	Close 6 p.m.	Close 6 p.m.	Close 6 p.m.	Open 6 p.m.	Open	Open	Close 6 p.m.	Close 6 p.m.	Open	Open
Wed 20-Jul	Open	Open	Open	Open	Open 8 p.m.	Open 6 p.m.	Open 6 p.m.	Open 6 p.m.	Open	Open	Open	Closed	Closed	Closed	Close 12 noon
Thu 21-Jul	Open	Open	Open	Open	Open	Open	Open	Open	Close 6 p.m.	Open	Open	Closed	Closed	Closed	Closed
Fri 22-Jul	Open	Open	Open	Open	Open	Close 6 p.m.	Close 6 p.m.	Close 6 p.m.	Open 6 p.m.	Open	Open	Closed	Closed	Closed	Open 6 p.m.
Sat 23-Jul	Open	Open	Open	Open	Open	Closed	Closed	Closed	Open	Open	Open	Closed	Closed	Closed	Open
Sun 24-Jul	Open	Open	Open	Open	Open	Open 6 p.m.	Open 6 p.m.	Open 6 p.m.	Close 6 p.m.	Open	Open	Open	Open	Open 6 p.m.	Close 12 noon
Mon 25-Jul	Open	Open	Open	Open	Open	Open	Open	Open	Closed	Open	Open	Close 6 p.m.	Close 6 p.m.	Open 6 p.m.	Open 6 p.m.
Tue 26-Jul	Open	Open	Open	Open	Open	Close 6 p.m.	Close 6 p.m.	Close 6 p.m.	Open 6 p.m.	Open	Open	Open	Closed	Closed	Open
Wed 27-Jul	Open	Open	Open	Open	Open	Open 6 p.m.	Open 6 p.m.	Open 6 p.m.	Open	Open	Open	Closed	Closed	Closed	Close 12 noon
Tue 28-Jul	Open	Open	Open	Open	Open	Open	Close 6 p.m.	Close 6 p.m.	Open 6 p.m.	Open	Open	Open	Closed	Closed	Closed
Wed 29-Jul	Open	Open	Open	Open	Open	Closed	Closed	Closed	Open	Open	Open	Open 6 p.m.	Closed	Closed	Open 6 p.m.
Thu 30-Jul	Open	Open	Open	Open	Open	Open 6 p.m.	Open 6 p.m.	Close 6 p.m.	Open	Open	Open	Open	Closed	Closed	Open
Fri 31-Jul	Open	Open	Open	Open	Open	Open	Open	Open 6 p.m.	Open	Open	Open	Open	Open	Open	Close 12 noon
Sat 1-Aug	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open	Open 6 p.m.

<sup>3</sup> Koyukuk and Innoko subsistence salmon fishing remained open 7 days per week and Old Minto Area remained open 5 days per week with unrestricted mesh size gillnets.

Table 3.—Preliminary summer season commercial harvest summary, Yukon Area, 2011.

District 1															
Period	Starting Time	Start Date	Ending Time	End Date	Hours Fished	Mesh Size	Number of Fishermen	Chinook Salmon				Summer Chum Salmon			
								Number Caught but Not Sold	Number Sold	Pounds	Average Weight	Number	Pounds	Average Weight	
1	6:00 PM	24 Jun	12:00 midnight	24 Jun	6	R	154	522			-	10,913	73,123	6.7	
2	8:00 PM	27 Jun	2:00 AM	28 Jun	6	R	161	643			-	30,189	203,860	6.8	
3 <sup>a</sup>	6:00 PM	29 Jun	10:00 PM	29 Jun	4	R	128	147			-	28,237	186,076	6.6	
4 <sup>a</sup>	6:00 PM	1 Jul	10:00 PM	1 Jul	4	R	153	222			-	22,540	147,434	6.5	
5 <sup>a</sup>	6:00PM	3 Jul	12:00 midnight	3 Jul	6	R	147	132			-	17,184	110,701	6.4	
6 <sup>a</sup>	6:00PM	4 Jul	12:00 midnight	4 Jul	6	R	85	72			-	8,539	54,304	6.4	
7	8:00 PM	6 Jul	2:00 AM	7 Jul	6	R	133	94			-	11,472	75,479	6.6	
8	9:00 PM	8 Jul	6:00 AM	9 Jul	9	R	125	87			-	6,752	43,535	6.4	
9	10:00 AM	11 Jul	10:00 PM	11 Jul	12	R	62	18			-	1,364	8,647	6.3	
10	6:00 PM	12 Jul	6:00 AM	12 Jul	12	R	96	50			-	10,270	67,488	6.6	
11	9:00 AM	14 Jul	9:00 PM	14 Jul	12	R	123	97			-	15,979	106,775	6.7	
Fall Season								35	64	389	6.1				
District 1 Subtotal:					83		228	2,119	64	389	6.1	163,439	1,077,422	6.6	
District 2															
Period	Starting Time	Start Date	Ending Time	End Date	Hours Fished	Mesh Size	Number of Fishermen	Chinook Salmon				Summer Chum Salmon			
								Number Caught but Not Sold	Number Sold	Pounds	Average Weight	Number	Pounds	Average Weight	
1	8:00 PM	26 Jun	12:00 midnight	26 Jun	4	R	137	768			-	15,338	102,252	6.7	
2	6:00 PM	28 Jun	10:00 PM	28 Jun	4	R	137	531			-	10,821	70,467	6.5	
3 <sup>b</sup>	5:00 PM	6 Jul	8:00 PM	6 Jul	3	R	29	19			-	2,340	14,798	6.3	
4 <sup>c</sup>	5:00 PM	7 Jul	9:00 PM	7 Jul	4	R	103	108			-	10,271	66,303	6.5	
5	3:00 PM	10 Jul	12:00 midnight	10 Jul	9	R	150	239			-	22,187	139,518	6.3	
6	6:00 PM	11 Jul	3:00 AM	12 Jul	9	R	79	98			-	8,716	53,182	6.1	
7	6:00 PM	13 Jul	3:00 AM	14 Jul	9	R	103	89			-	6,546	39,657	6.1	
8	12:00 noon	15 Jul	9:00 PM	15 Jul	9	R	115	84			-	12,159	77,862	6.4	
9	9:00 AM	17 Jul	9:00 PM	17 Jul	12	R	127	63			-	14,693	93,476	6.4	
Fall Season									45	557	12.4				
District 2 Subtotal:					63		183	1,999	45	557	12.4	103,071	657,515	6.4	
Lower Yukon Area, Summer Season, Districts 1, 2, and 3 Subtotal: <sup>d,e</sup>															
					146		403	4,118	109	946	8.7	266,510	1,734,937	6.5	
Subdistricts 6-A, 6-B, and 6-C															
Period	Starting Time	Start Date	Ending Time	End Date	Hours Fished		Number of Fishermen	Chinook Salmon				Summer Chum Salmon			
								Number Caught but Not Sold	Number Sold	Pounds	Average Weight	Number	Pounds	Average Weight	
1	8:00 PM	18 Jul	8:00 AM	19 Jul	12	12	1	30			-	235	1,410	6.0	
2	8:00 PM	19 Jul	8:00 AM	20 Jul	12	12	3	81			-	667	4,002	6.0	
3	8:00 PM	22 Jul	8:00 AM	23 Jul	12	12	4	71			-	1,139	6,491	5.7	
4	8:00 PM	23 Jul	8:00 AM	24 Jul	12	12	4	69			-	1,224	6,976	5.7	
5	8:00 PM	25 Jul	8:00 AM	26 Jul	12	12	3	47			-	1,630	9,290	5.7	
6	8:00 PM	26 Jul	8:00 AM	27 Jul	12	12	2	22			-	982	5,597	5.7	
7	6:00 PM	29 Jul	12:00 noon	31 Jul	42	42	4	32			-	2,651	14,579	5.5	
8	6:00 PM	1 Aug	12:00 noon	3 Aug	42	42	1	0			-	123	677	5.5	
9	6:00 PM	5 Aug	12:00 noon	7 Aug	42	42	0	0			-	0	0	-	
10	6:00 PM	8 Aug	12:00 noon	10 Aug	42	42	0	0			-	0	0	-	
11	6:00 PM	12 Aug	12:00 noon	14 Aug	42	42	0	0			-	0	0	-	
District 6 Subtotal:					282	282	5	352			-	8,651	49,022	5.7	
Upper Yukon Area, Summer Season, Districts 4, 5, and 6 Subtotal:															
					282		5	352			-	8,651	49,022	5.7	
Yukon Area, Summer Season, Districts 1 Through 6 Total: <sup>d,e</sup>															
					428		408	4,470	109	946	8.7	275,161	1,783,959	6.5	

Note: No commercial fishing occurred in Districts 3, 4, and 5. Mesh size R indicates 6" maximum mesh size.

<sup>a</sup> The area open to commercial fishing was restricted to the South Mouth only.

<sup>b</sup> The area open to commercial fishing was downriver from the confluence of the Andreafsky and the Yukon Rivers to the Y-1 and Y-2 boundary line at the Anuk River.

<sup>c</sup> The area open to commercial fishing was downriver of the slough at the community of Pilot Station to the Y-1 and Y-2 boundary line at the Anuk River.

<sup>d</sup> The Number of Fishermen is the unique number of permits fished. Some fishermen may fish multiple areas, therefore the subtotals will not necessarily add up by district.

<sup>e</sup> Includes Chinook salmon caught and sold in the fall season.

Table 4.—Chinook salmon commercial harvest and escapement comparisons, Yukon River, 2001–2011.

Chinook Salmon Commercial Harvest <sup>a</sup>														
District/Subdistrict	Guideline Harvest Range	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Comparison 2011 10-Yr. Average	Recent 10-Year Average (2001-2010)
1			11,087	22,709	28,403	16,694	23,748	18,615	2,530	90	5,744	64	-100%	14,402
2			11,434	14,220	24,145	13,413	19,843	13,302	2,111	226	4,153	45	-100%	11,427
Subtotal 1 & 2	60,000-120,000		22,521	36,929	52,548	30,107	43,591	31,917	4,641	316	9,897	109	-100%	25,830
3	1,800-2,200						315	190						
4A														
4BC				562										
Subtotal 4	2,250-2,850			562										
5ABC	2,400-2,800		564	908	1,546	1,469	1,839	1,241						1,261
5D	300-500		207	226										217
Subtotal 5			771	1,134	1,546	1,469	1,839	1,241						1,333
6	600-800		836	1,813	2,057	453	84	281						921
Total Alaska	67,350-129,150		24,128	40,438	56,151	32,029	45,829	33,629	4,641	316	9,897		-100%	27,298
Canada <sup>b</sup>		9,769	9,069	9,443	10,946	10,977	8,758	4,794	3,399	4,297	2,647		-100%	7,628

Chinook Salmon Escapement														
Project	Escapement Goal	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Comparison of 2011 to 5-Yr. Average	Recent 5-Year Average (2006-2010)
East Fork Andreafsky River Weir		<sup>n</sup>	4,123	4,336	8,045	2,239	6,463	4,504	4,242	3,004	2,413	5,213 <sup>m</sup>	26%	4,125
East Fork Andreafsky River Aerial <sup>c</sup>	960-1,700 SEG <sup>j</sup>	1,065 <sup>r</sup>	1,447	1,116 <sup>g</sup>	2,879	1,715	590 <sup>g</sup>	1,758	278 <sup>g</sup>	80 <sup>g</sup>	537			649
West Fork Andreafsky River Aerial <sup>c</sup>	640-1,600 SEG <sup>j</sup>	570 <sup>r</sup>	917	1,578	1,317	1,492	824	976	262 <sup>g</sup>	1,664	858	1,173	28%	917
Pilot Station Sonar		99,403	123,213	268,537	156,606	159,441	169,403	125,553	130,643 <sup>w</sup>	122,990	113,410	107,274 <sup>m</sup>	-19%	132,400
Anvik River Index Aerial <sup>c</sup>	1,100-1,700 SEG <sup>j</sup>	1,172 <sup>r</sup>	1,329	973 <sup>g</sup>	3,475	2,421	1,776	1,580	992 <sup>g</sup>	590	721	501	-56%	1,132
Henshaw Creek Weir		1,103	649	763	1,246	1,059	<sup>o</sup>	569	779	1,157	857	1,796 <sup>m</sup>	114%	841
Nulato River Tower		<sup>o</sup>	2,696	1,716	<sup>p</sup>	<sup>p</sup>	<sup>p</sup>	<sup>p</sup>	<sup>p</sup>		<sup>p</sup>			
Nulato River Aerial <sup>c</sup>	940-1,900 SEG <sup>j g</sup>	1,884 <sup>s</sup>	1,584	<sup>g</sup>	1,321	553	1,292	2,583	922	2,251	711	1,401	-10%	1,552
Gisasa River Weir		3,052	2,025	1,901	1,774	3,111	3,030	1,425	1,735	1,955	1,516	2,692 <sup>m</sup>	39%	1,932
Gisasa River Aerial <sup>c</sup>	420-1,100 SEG <sup>j g</sup>	1,298 <sup>r</sup>	506	<sup>g</sup>	731	958	843	593	487	515	264		-100%	540
Chena River Tower/MR Tagging	2,800-5,700 BEG <sup>k f</sup>	9,696 <sup>f</sup>	6,967 <sup>f</sup>	8,739 <sup>f</sup>	9,645	<sup>o</sup>	2,936	3,806	3,208	5,250	2,382	195 <sup>m,i</sup>	-94%	3,516
Sakha River Tower/MR Tagging	3,300-6,500 BEG <sup>k</sup>	13,328	4,644 <sup>f</sup>	15,500 <sup>f</sup>	15,761	5,988	10,679	6,425 <sup>t</sup>	2,731 <sup>t</sup>	12,786	6,135	<sup>m</sup>	-100%	7,751
Eagle Sonar						81,528	73,691	41,697	38,097	69,957	35,074	50,780 <sup>m</sup>	-2%	51,703
Canadian Estimated Escapement	IMEG 42,500-55,000 <sup>u</sup>	52,564	42,359	80,594	48,469	68,551	62,933	34,903	33,630	65,278	31,818	49,780 <sup>m</sup>	9%	45,712
ESCAPEMENT INDEX <sup>h</sup>		78,640	62,814	112,786	83,694	79,889	86,041	51,063	45,546	88,273	44,264	57,880	-8%	63,037

-continued-

Table 4.–Page 2 of 2.

- 
- <sup>a</sup> Commercial harvest includes the estimated harvest of females to produce roe sold.
- <sup>b</sup> Total harvest for all fisheries in Canadian mainstem Yukon River.
- <sup>c</sup> Aerial surveys rated good to fair unless noted otherwise.
- <sup>f</sup> Mark and recapture tagging estimate; tower counts were minimum/incomplete due to late installation and/or early removal of project, or high water events/weather conditions.
- <sup>g</sup> Aerial surveys rated as incomplete and/or poor survey conditions; data not comparable to other years.
- <sup>h</sup> The escapement index is the summed escapements for East Fork Andreafsky weir, Nulato tower, Gisasa weir, Chena and Salcha towers, and Canada mainstem border passage minus the Canadian catch.
- <sup>j</sup> SEG = "Sustainable escapement goal", as defined by the Sustainable Fisheries Policy
- <sup>k</sup> BEG = "Biological escapement goal", as defined by the Sustainable Fisheries Policy. Range established in 2001.
- <sup>m</sup> Data are preliminary.
- <sup>n</sup> Weir counts incomplete due to late start-up. On average, missed approximately 75% of Chinook passage. Total counts for 2001 were 1,148 Chinook salmon.
- <sup>o</sup> No data due to incomplete operations.
- <sup>p</sup> Did not operate.
- <sup>r</sup> In 2001, the escapement goals were revised.
- <sup>s</sup> In 2001, the Nulato River escapement goal was established for both forks combined.
- <sup>t</sup> Tower counts were minimum due to high water events/weather conditions.
- <sup>u</sup> In 2008, the escapement goal was revised to an Interim Management Escapement Goal (IMEG) and continued in 2009. In 2010 the escapement goal was revised again.
- <sup>w</sup> Due to the large run of pink salmon observed in 2008, species apportionment issues were encountered. After more thorough analysis, sonar estimates have been adjusted post season.
- <sup>x</sup> Project counts not comparable to other years; incomplete counts due to late start.
- <sup>y</sup> Inseason run assessment was hampered by high water that affected Pilot Station sonar.

Table 5.—Summer chum salmon commercial harvest and escapement comparisons, Yukon River, 2001–2011.

Summer Chum Salmon Commercial Harvest <sup>a</sup>															
District/Subdistrict		Guideline Harvest Range	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Comparison of 2011 to 10-Yr. Average	Recent 10-Year Average (2001-2010)
1				6,327	3,579	13,993	23,965	21,816	106,790	67,459	75,346	102,267	163,439	249%	46,838
2				4,027	2,583	5,782	8,313	25,543	69,432	58,139	86,571	80,948	103,071	172%	37,926
Subtotal 1 & 2		251,000-755,000		10,354	6,162	19,775	32,278	47,359	176,222	125,598	161,917	183,215	266,510	214%	84,764
3		6,000-19,000						116	1						
Anvik River	Est. Fish lbs. Roe	100,000													
4A	Est. Fish lbs. Roe	113,000-338,000							7,304	24,346	4,589	44,207			20,112
		61,000-183,000							5,938	21,575	3,906				10,473
4BC	Est. Fish lbs. Roe	16,000-47,000			62										62
Subtotal 4					62										62
5ABC				6		25		20							17
5D															
Subtotal 5		1,000-3,000		6		25		20							17
6	Est. Fish lbs. Roe	13,000-38,000		3,217	4,461	6,610	8,986	44,621	14,674	1,842	7,777	5,466	8,651	-20%	10,850
Total		400,000-1,200,000		13,577	10,685	26,410	41,264	92,116	198,201	151,786	174,283	232,888	275,161	163%	104,579
Summer Chum Salmon Escapement															
Project		Escapement Goal	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Comparison 2011 5-Yr. Average	Recent 5-Year Average (2006-2010)
East Fork Andreafsky River Weir		65,000-135,000 BEG	<sup>n</sup>	45,019	22,603	62,730	20,127	101,465	69,642	57,259	8,770	72,893 <sup>m</sup>	100,473	62%	62,006
Pilot Station Sonar			441,450	1,088,463	1,168,518	1,357,826	2,439,616	3,767,044	1,726,885	1,665,667 <sup>s</sup>	1,285,437	1,327,581 <sup>m</sup>	1,779,459	-9%	1,954,523
Anvik River Sonar		350,000-700,000 BEG	224,058	462,101	251,358	365,691	525,391	992,378 <sup>t</sup>	459,038	374,929 <sup>s</sup>	193,099	396,173 <sup>m</sup>	642,527	33%	483,123
Henshaw Creek Weir			35,031	25,249	22,556	85,966	237,481	<sup>c</sup>	31,442	97,281	156,201	100,670 <sup>m</sup>	248,247	158%	96,399
Nulato River Tower		<sup>c</sup>		72,230	17,814	<sup>r</sup>	<sup>r</sup>	<sup>r</sup>	<sup>r</sup>	<sup>r</sup>	<sup>r</sup>	<sup>r</sup>			
Gisasa River Weir			17,936	32,943	24,379	37,851	172,259	225,225	46,257	36,758	25,833	47,667 <sup>m</sup>	95,796	25%	76,348
Clear Creek Tower			3,674	13,150	5,230	15,661	26,420	29,166 <sup>u</sup>	<sup>r</sup>	<sup>r</sup>	<sup>r</sup>	<sup>r</sup>			29,166
Chena River Tower		<sup>c</sup>	4,773 <sup>c</sup>	1,021 <sup>c</sup>	573 <sup>c</sup>	15,162	16,875 <sup>c</sup>	35,109	4,705 <sup>c</sup>	1,333 <sup>c</sup>	16,516	7,580 <sup>m</sup>	333 <sup>c</sup>	-97%	13,049
Sakha River Tower			14,900	20,837 <sup>c</sup>	890 <sup>c</sup>	47,861	193,085	111,869	11,196 <sup>c</sup>	1,251 <sup>c</sup>	30,490	23,863 <sup>m</sup>	31,002	-13%	35,734
ESCAPEMENT INDEX <sup>g</sup>			296,698	659,400	340,173	615,261	1,165,218	1,466,046	622,280	568,811	430,909	648,846		-100%	747,378

-continued-

Table 5.—Page 2 of 2.

<sup>a</sup> Commercial harvest includes the estimated harvest of females to produce roe sold, except for Districts 3 and 4, which also includes the estimated number of males harvested to produce roe sold.

<sup>c</sup> Project counts not comparable to other years; incomplete counts due to early removal of project or high water events/weather conditions.

<sup>g</sup> The escapement index is the summed escapements for East Fork Andreafsky weir, Anvik sonar, Gisasa weir, Kaltag, Nulato, and Salcha towers.

<sup>k</sup> BEG = "Biological escapement goal", as defined by the Sustainable Fisheries Policy. Range established in 2001.

<sup>m</sup> Data are preliminary.

<sup>n</sup> Weir counts incomplete due to late start-up. On average, missed approximately 75% of Chinook passage. Total counts for 2001 were 2,086 summer chum salmon.

<sup>p</sup> Escapement goal revised in 2001.

<sup>r</sup> Did not operate.

<sup>s</sup> Due to the large run of pink salmon observed in 2008, species apportionment issues were encountered. After more thorough analysis, sonar estimates have been adjusted post season.

<sup>t</sup> HTI and DIDSON sonar equipment used in 2006. Estimates reported are DIDSON derived.

<sup>u</sup> Videography count.



Table 6.—Number of commercial salmon fishing gear permit holders who delivered fish, listed by district and season, Yukon Area, 1971–2011.

Chinook and Summer Chum Salmon Season									
Year	Lower Yukon Area				Upper Yukon Area				Total
	District 1	District 2	District 3	Subtotal <sup>a</sup>	District 4	District 5	District 6	Subtotal	
1971	405	154	33	592	-	-	-	-	592
1972	426	153	35	614	-	-	-	-	614
1973	438	167	38	643	-	-	-	-	643
1974	396	154	42	592	27	31	20	78	670
1975	441	149	37	627	93	52	36	181	808
1976	453	189	42	684	80	46	29	155	839
1977	392	188	46	626	87	41	18	146	772
1978	429	204	22	655	80	45	35	160	815
1979	425	210	22	657	87	34	30	151	808
1980	407	229	21	657	79	35	33	147	804
1981	448	225	23	696	80	43	26	149	845
1982	450	225	21	696	74	44	20	138	834
1983	455	225	20	700	77	34	25	136	836
1984	444	217	20	613	54	31	27	112	725
1985	425	223	18	666	74	32	27	133	799
1986	441	239	7	672	75	21	27	123	795
1987	440	239	13	659	87	30	24	141	800
1988	456	250	22	678	95	28	33	156	834
1989	445	243	16	687	98	32	29	159	846
1990	453	242	15	679	92	27	23	142	821
1991	489	253	27	678	85	32	22	139	817
1992	438	263	19	679	90	28	19	137	816
1993	448	238	6	682	75	30	18	123	805
1994	414	250	7	659	55	28	20	103	762
1995	439	233	0	661	87	28	21	136	797
1996	448	189	9	627	87	23	15	125	752
1997	457	188	0	639	39	29	15	83	722
1998	434	231	0	643	0	18	10	28	671
1999	412	217	5	631	5	26	6	37	668
2000	350	214	-	562	-	-	-	-	562
2001 <sup>b</sup>	-	-	-	-	-	-	-	-	-
2002	323	223	<sup>c</sup>	540	<sup>c</sup>	14	6	20	560
2003	352	217	<sup>c</sup>	556	3	16	7	26	582
2004	396	213	<sup>c</sup>	550	<sup>c</sup>	14	6	20	570
2005	370	228	<sup>c</sup>	578	<sup>c</sup>	12	5	17	595
2006	379	214	6	569	<sup>c</sup>	15	10	25	594
2007	359	220	3	564	5	12	10	27	591
2008	266	181	<sup>c</sup>	444	8	<sup>c</sup>	5	13	457
2009	213	166	<sup>c</sup>	376	6	<sup>c</sup>	5	11	387
2010	264	181	<sup>c</sup>	440	5	<sup>c</sup>	5	10	450
2011	230	183	<sup>c</sup>	403	<sup>c</sup>	<sup>c</sup>	5	5	408
2001-2010 Avg.	325	205	5	513	5	14	6	17	532
2011 vs. Avg.	-29.2%	-10.6%		-21.4%			-21.9%	-71.3%	-23.3%

<sup>a</sup> Since 1984 the subtotal for the Lower Yukon Area was the unique number of permits fished. Prior to 1984, the subtotals are additive for District 1, 2, and 3. Some individual fishermen in the Lower Yukon Area may have operated in more than one district during the season.

<sup>b</sup> No commercial fishing occurred in 2001.

<sup>c</sup> No commercial fishing periods in portions or all of Districts 3, 4, and 5.

Table 7.—Value of commercial salmon fishery to Yukon Area fishermen, 1977–2011.

Year	Chinook					Summer Chum						Value by Species		Value by Area		
	Lower Yukon		Upper Yukon			Lower Yukon			Upper Yukon							
	\$/lb	Value	\$/lb	\$/Roe	Value	\$/lb	\$/Roe	Value	\$/lb	\$/Roe	Value	Chinook	Summer Chum	Lower	Upper	Total
1977	0.85	1,841,033	1.37		148,766	0.40		1,007,280	0.27	2.66	306,481	1,989,799	1,313,761	2,848,313	455,247	3,303,560
1978	0.90	2,048,674	0.87		66,472	0.45		2,071,434	0.24	N/A	655,738	2,115,146	2,727,172	4,120,108	722,210	4,842,318
1979	1.09	2,763,433	1.00		124,230	0.52		2,242,564	0.25	3.00	444,924	2,887,663	2,687,488	5,005,997	569,154	5,575,151
1980	1.04	3,409,105	0.85		113,662	0.20		1,027,738	0.23	2.50	627,249	3,522,767	1,654,987	4,436,843	740,911	5,177,754
1981	1.20	4,420,669	1.00		206,380	0.40		2,741,178	0.20	3.00	699,876	4,627,049	3,441,054	7,161,847	906,256	8,068,103
1982	1.41	3,768,107	1.02		162,699	0.40		1,237,735	0.18	2.75	452,837	3,930,806	1,690,572	5,005,842	615,536	5,621,378
1983	1.40	4,093,562	1.08		105,584	0.34		1,734,270	0.16	1.66	281,883	4,199,146	2,016,153	5,827,832	387,467	6,215,299
1984	1.50	3,510,923	0.95		102,354	0.26		926,922	0.23	1.78	382,776	3,613,277	1,309,698	4,437,845	485,130	4,922,975
1985	1.50	4,294,432	0.86		82,644	0.35		1,032,700	0.23	1.94	593,801	4,377,076	1,626,501	5,327,132	676,445	6,003,577
1986	1.63	3,165,078	0.89		73,363	0.38		1,746,455	0.22	2.08	634,091	3,238,441	2,380,546	4,911,533	707,454	5,618,987
1987	1.98	5,428,933	0.79		136,196	0.48		1,313,618	0.19	2.22	323,611	5,565,129	1,637,229	6,742,551	459,807	7,202,358
1988	2.97	5,463,800	1.04		142,284	0.66		5,001,100	0.23	4.33	1,213,991	5,606,084	6,215,091	10,464,900	1,356,275	11,821,175
1989	2.77	5,181,700	0.84		108,178	0.34		2,217,700	0.24	4.41	1,377,117	5,289,878	3,594,817	7,399,400	1,485,295	8,884,695
1990	2.84	4,820,859	0.72		105,295	0.24		497,571	0.11	4.41	506,611	4,926,154	1,004,182	5,318,430	611,906	5,930,336
1991	3.70	7,128,300	0.70	2.92	97,140	0.36		782,300	0.18	4.21	627,177	7,225,440	1,409,477	7,910,600	724,317	8,634,917
1992	4.12	9,957,002	0.91	2.82	168,999	0.27		606,976	0.30	4.53	525,204	10,126,001	1,132,180	10,563,978	694,203	11,258,181
1993	2.70	4,884,044	1.06	5.52	113,217	0.37		226,772	0.35	8.53	203,762	4,997,261	430,534	5,110,815	316,979	5,427,794
1994	2.07	4,169,270	0.92	3.11	124,270	0.21		79,206	0.20	3.77	396,685	4,293,540	475,891	4,248,476	520,955	4,769,431
1995	2.09	5,317,508	0.77	2.64	87,059	0.16		241,598	0.13	3.57	1,060,322	5,404,567	1,301,920	5,559,106	1,147,381	6,706,487
1996	1.95	3,491,582	0.95	2.57	47,282	0.09	2.96	89,020	0.07	3.05	966,277	3,538,864	1,055,297	3,580,602	1,013,559	4,594,161
1997	2.46	5,450,433	0.97	1.62	110,713	0.10		56,535	0.07	1.08	96,806	5,561,146	153,341	5,506,968	207,519	5,714,487
1998	2.51	1,911,370	0.91	2.00	17,285	0.14		26,415	0.18	1.90	821	1,928,655	27,236	1,937,785	18,106	1,955,891
1999	3.80	4,950,522	1.10	2.11	74,475	0.10		19,687	0.18	2.25	1,719	5,024,997	21,406	4,970,209	76,194	5,046,403
2000	4.57	725,606				0.17		8,633				725,606	8,633	734,239		734,239
2001																
2002	3.77	1,691,105	0.75	1.75	20,744	0.06		4,342	0.32	2.25	6,176	1,711,849	10,518	1,695,447	26,920	1,722,367
2003	2.37	1,871,202	0.80		40,957	0.05		1,585	0.27		6,879	1,912,159	8,464	1,872,787	47,836	1,920,623
2004	2.80	3,063,667	0.77		38,290	0.05		8,884	0.27		9,645	3,101,957	18,529	3,072,551	47,935	3,120,486
2005	3.43	1,952,109	0.87		24,415	0.05		11,004	0.25		13,479	1,976,524	24,483	1,963,113	37,894	2,001,007
2006	3.94	3,290,367	1.30		32,631	0.05		23,862	0.16		42,988	3,322,998	66,850	3,314,229	75,619	3,389,848
2007	3.73	1,939,114	1.33		27,190	0.19		220,715	0.25	2.36	34,421	1,966,304	255,136	2,159,829	61,611	2,221,440
2008	4.64	325,470				0.40		326,930	0.25	3.00	65,840	325,470	392,770	656,606 <sup>a</sup>	65,840	718,240
2009	5.00	20,970				0.50		514,856	0.26	3.00	20,430	20,970	535,286	535,826	20,430	556,256
2010	5.00	639,230				0.70		823,967	0.23		61,534	639,230	885,501	1,463,197	61,534	1,524,731
2011	-	-	-	-	-	0.75		1,301,403	0.26		12,966	-	1,314,369	1,301,403	12,966	1,314,369
2001-2010 Avg.	3.85	1,643,692.67	0.97	1.75	30,705	0.23		215,127	0.25	2.65	29,044	1,664,162	244,171	1,859,287	49,513	1,908,333
2011 vs. Avg.						229.3%		504.9%	3.3%			438.3%		-30.0%	-73.8%	-31.1%

<sup>a</sup> Includes \$4,656 in sales of pink salmon in Districts 1 and 2.