



## YUKON RIVER SALMON UPDATE July 17, 2008

### RUN SIZE ESTIMATES

#### **Alaskan Portion Run Assessment: Chinook**

Based on inseason assessment information from U.S. programs on the lower river, there has been some improvement in run strength as the third pulse of fish moved through the lower river. Lower river information suggests the overall timing of the 2008 run is about 6 days late and has involved a slow start and relatively late run strength. This is similar to the 2008 Chinook salmon timing pattern in the neighbouring Kuskokwim River. Data from the Pilot Station sonar program, two lower river test fisheries, the Rampart Rapids fish wheel program, and the Eagle sonar program are presented in the table below. The Pilot Station sonar count to July 15 is 132,291, approximately 7% below the 1995-2007 average count to this date of 141,622. After a season high Pilot Station passage estimate of 46,446 Chinook salmon from June 30 to July 3, the run appears to have slowed and the total count for the July 4 to July 15 period was only 19,177.

The Eagle sonar estimate of Chinook salmon to July 16 is 4,490. The timing and abundance Chinook salmon early in the season at Eagle Alaska, and at the Canadian border which is located a short distance upstream, is highly variable, hence comparisons with other years are less meaningful now than later in the season. Cumulative sonar estimates to July 16 have averaged 9,058, ranging from 4,919 in 2006 to 14,283 in 2005, although comparative data is limited. The Chinook salmon component of the Eagle sonar program has previously operated from 2005 to 2007. A better understanding of the 2008 run strength will be available early next week after more fish have entered the Upper Yukon River drainage.

Run Assessment Program	Date (as of)	2008	Comments
Pilot Station Sonar	July 15	132,291	average 141,622 (1995-2007)
Lower Yukon Test Index*	July 15	22.27	average 22.79
Marshall Test Fishery*	July 15	1,074	average 984
Ramparts Fish Wheel*	July 16	1,281	average 1,940; low # females
Eagle Sonar	July 16	4,490	14,283-2005 4,919-2006; 7,973-2007

\*average number of fish caught per unit effort of fishing (CPUE) – gives relative abundance for comparison among years.

#### **Canadian Portion Run Assessment: Chinook**

The assessment of Chinook salmon entering the Upper Yukon River drainage will be determined primarily from the joint U.S./Canada sonar program located near Eagle Alaska. This will be the second year that this program has helped guide Canadian management actions. The DFO mark-recapture program is also in operation for the collection of comparative data and a test fishery is being operated in conjunction with the mark-recapture program.

The first Chinook salmon was caught in the DFO fish wheels near the U.S. Canada/border on July 03. This is approximately six days later than normal. The total catch to July 16 in the fish wheels is 318 Chinook salmon which is close to the 10 year average of 313; however, the number of females is quite low (13%). The number of female Chinook salmon caught in the lower test fishery which took place from July 12-16 was also low; only 9 (16%) of the 57 fish caught were female. This test fishery was using nets with a 20.3 cm (8 inch) inch mesh size. The 2008 run into Canada is expected to develop slowly with low numbers of fish early in the season and more substantive numbers when the second and third pulses of Chinook salmon identified on the lower river arrive at the border. Information from the Rampart Rapids fish wheel program suggests that the third pulse of fish passed the Rampart Rapids area from July 14 to 16 and it is expected to arrive at the Canadian border in the July 28 to 30 period.

Although there has been improvement in the size of the 2008 Yukon River Chinook run based on U.S. assessment programs, the potential size of the Canadian component of the run and the expected “quality of escapement”, the size of the fish and the percentage of females is still a concern. Based on current run projections from the lower Yukon River in Alaska and available inseason stock composition estimates, it is expected the number of fish reaching Canada will be in near the mid-point of the YELLOW MANAGEMENT ZONE. A better understanding of the run into Canada will be available as more fish enter the Canadian section of the Upper Yukon River drainage.

**Canadian Management actions for Chinook salmon Projections in the various zones are as follows:**

**The Red Zone is a Border Escapement Projection in the 1-19,000 range: this will result in closure of all fisheries except a test fishery;**

**The Yellow Zone is a Border Escapement Projection in the 19,000 to 54,000 range: this will require closures in the commercial, domestic and recreational fisheries and restrictions will be considered in the First Nations' fishery; the test fishery will continue to operate to assess the run; and**

**The Green Zone is a Border Escapement Projection greater than 54,000: this will allow for a "normal" (unrestricted) First Nations fishery and commercial, domestic and recreational fisheries will be allowed but managed according to available abundance within the Green Zone.**

## **MANAGEMENT SUMMARY**

### **U.S. Fisheries:**

In response to the weak run strength early in the season, ADF&G did not initiate a directed Chinook salmon commercial fishery and the subsistence fishery has been limited throughout the river through reduced fishing periods and gear restrictions. Subsistence catch information is unavailable inseason, however the total season catch is expected to be below average.

The Pilot Station Sonar summer chum salmon passage estimate through July 16 is approximately 1,840,000 with a total season projection of approximately 1.9 million. In response to the relatively high abundance of summer chum salmon, a number of directed summer chum salmon commercial fishing periods have occurred in the Lower Yukon Area Districts Y1 and Y2. These fishing periods occurred after most of the chinook salmon run had passed and ranged from 4 to 9 hours in duration with gillnets restricted to a 6 inch maximum mesh size to limit the by-catch of Chinook salmon. The preliminary harvest in the Lower Yukon Area summer chum salmon commercial fisheries is 122,600 summer chum salmon and 4,300 Chinook salmon.

Three, 24 to 48 hour commercial summer chum salmon fisheries have occurred in Subdistrict 4-A with gillnets restricted to a 6-inch maximum mesh size and a voluntary commitment from fishers to attend fish wheels and immediately release Chinook salmon and male chum salmon. The reported catch is 9,300 summer chum salmon.

ADF&G chum salmon management usually transitions from the more abundance summer chum salmon run to the fall chum salmon run on July 16, on the lower Yukon River. Recent genetic studies have helped determine the suitability of July 16 as the cut-off date for the transition from summer to fall chum salmon management. The abundance of Yukon River fall chum salmon runs have usually correlated well with the abundance of the earlier migrating summer chum salmon runs. The strength of the 2008 summer chum salmon run suggests that the ADF&G preseason outlook of 1 million fall chum salmon may be reasonable. This preliminary information suggests that the 2008 fall chum salmon run will provide for U.S. and Canadian escapement goals, harvest opportunities in subsistence (U.S.) and aboriginal (Canada) fisheries, and commercial harvests in both countries.

### **Canadian Fisheries:**

Inseason assessment for the management of Canadian fisheries will primarily be based on the joint U.S./Canada sonar program located near Eagle Alaska.

The 2008 Interim Management Escapement Goal (IMEG) for Upper Yukon River Chinook salmon is 45,000 fish on the spawning grounds. At this time, lower river assessment information suggests there has been improvement in the total run strength, however the 2008 Chinook salmon run into Canada is expected to fall near the mid-point of the YELLOW MANAGEMENT ZONE. The management response for a run near the near the mid-point of the YELLOW MANAGEMENT ZONE involves the closure of the commercial and domestic fisheries, non-retention of Chinook salmon in the recreational fishery, and potential restrictions in First Nations fisheries. There is still a concern regarding the status of the 2008 Yukon River Chinook salmon run and the current management response is summarized below.

The commercial and domestic fisheries are closed until further notice. Restrictions in the recreational fishery include a non-retention (0 daily catch and 0 possession limit) of Chinook salmon in the Yukon River and all of its tributaries effective 2400 hrs July 11<sup>th</sup> until further notice. In addition, all angling is closed in the waters of Tatchun Creek, and in the Yukon River near the confluence of Tatchun Creek within an area marked by boundary signs located approximately 30 metres upstream from the Yukon River/Tatchun Creek confluence and 800 metres downstream of the confluence.

Yukon First Nations are investigating and/or implementing measures to initially reduce their Chinook salmon catch to a level which is approximately 50% of the recent average harvest. Based on this initiative, if the run projections continue to be in the middle of the Yellow Zone, the anticipated Upper Yukon aboriginal harvest will be approximately 4,000 Chinook salmon and the harvest within the Porcupine River drainage will be approximately 150 Chinook salmon.

The need to continue or modify fishery restrictions will be reviewed on an ongoing basis. The status of the 2008 Chinook salmon run will be more apparent early next week after more assessment information is available. Additional fishery announcements may be made in response to this information. A summary of the current status of Canadian fisheries is contained in the following table:

<b>Fishery</b>	<b>Status</b>	<b>Comments</b>
<b>Upper Yukon First Nations Fishery</b>	<b>OPEN</b>	First Nations implementing measures to reduce harvest by 50%
<b>Recreational Fishery</b>	<b>CLOSED</b>	Non-retention of Chinook in all tributaries effective 2400 hrs July 11. Closure of the Yukon River near the Yukon River/Tatchun Creek confluence and closure of Tatchun Creek to all sport fishing from 2400 hrs July 11 to September 30
<b>Domestic Fishery</b>	<b>CLOSED</b>	Expected to be closed for the chinook season
<b>Commercial Fishery</b>	<b>CLOSED</b>	Expected to be closed for the chinook season
<b>Test fishery</b>	<b>OPEN</b>	In operation for the second period this weekend

**For more information please contact:**

**Patrick Milligan at (867) 393-6720**

**[Patrick.Milligan@dfo-mpo.gc.ca](mailto:Patrick.Milligan@dfo-mpo.gc.ca)**