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Yukon River Drainage Fisheries Association In-Season Harvest Survey Program Fall 2015 Season Summary

The in-season harvest survey is an important tool for assessing Yukon River fisher's subsistence harvest success and is funded by the U.S. Fish and Wildlife Service (USFWS) Office of Subsistence Management. The survey qualitatively informs managers how fishers in key locations throughout the drainage are doing in-season, enabling managers to make timely decisions allowing the maximum of fishers to meet their subsistence needs. The in-season harvest survey compliments the quantitative post-season survey by providing an explanation of fishing success such as high water, debris, wildfire and other adverse effects that influence fishing success.

Beginning in 2002, in-season harvest interviewers have been hired each year in select communities along the Yukon River to ensure consistent participation and reporting each week regarding subsistence harvests and observed abundance. These in-season interviews were implemented to assist in meeting the mandate set forth in the Alaska Native Interest Lands Conservation Act (ANILCA) and the State of Alaska Statute 16.05.258 Subsistence use and allocation of fish and game, both of which require a priority for subsistence over other consumptive uses. Postseason subsistence harvest surveys have been conducted annually on the Yukon River by the Alaska Department of Fish and Game (ADF&G) since 1961 to help estimate subsistence salmon harvest levels and total salmon use, evaluate subsistence fishing success, and detect and quantify shifts in harvest patterns and amounts (Busher et al. 2009). However, this information is only collected postseason and therefore unavailable for in-season management decisions. In-season interviews provide managers insight on subsistence harvest progression within multiple villages located on the Yukon River for use in fisheries management decisionmaking in real time. In addition to subsistence reports, the annual Yukon River Salmon teleconference calls provide a forum for information sharing on subsistence and commercial fishing schedules, gear type and use, salmon run timing and location plus other important issues such as Canadian border passage, escapement goals, and commercial fisheries.

For the 2015, the cooperative agreement with OSM was set to end in April. OSM allowed YRDFA to operate on an extension and carryover funds to cover the field season while we reapplied for the full program to begin in 2016. We hope that the Fisheries Resource Monitoring Program proposal will be approved so we can continue this long running program that provides

important communication which benefits Yukon River fishers and managers during the fishing season.

In 2015, we were able to hire surveyors in 4 villages:

- Marshall Norma Evan through the Marshall Tribal Council
- Russian Mission Basil Larsen through the Iqurmiut Tribal Council
- Ruby Ellis Wright through the Ruby Tribal Council
- Fort Yukon Andrew Firmin direct hire

Through meetings with the managers and fishers, we determined that two-way communication was an important strength of the program and we should focus on this aspect. These communities were selected because of their geographical location along the river covering 4 of the 7 fishing districts. We retained experienced surveyors in these communities who were doing a good job on interviews and participation in the teleconferences. Ruby was added because fishery managers were interested in learning more about why they did not meet their subsistence needs in 2014. The three previously hired surveyors and the Ruby supervisor attended the Pre-Season Yukon River Planning meeting in April in Anchorage and were able to share the discussions upon returning to their communities.

Once the fishing season began, information was collected from fishers regarding subsistence salmon household harvest goal progression and their general comparisons between the 2014 and 2015 fishing seasons. Surveyors documented concerns, observations, and recommendations on management decisions, fish quality, run timing, and fishers' general impression of the salmon run. Interview information was summarized and distributed to USFWS, ADFG, and presented by interviewers on YRDFA teleconferences. Surveyors utilized the opportunity afforded by the teleconferences to communicate first-hand their local fishing situations and progress to other fishers throughout the drainage. YRDFA evaluated the in-season harvest surveyors after each call to track if they participated and how their report was presented and provided feedback throughout the season to the local surveyor.

Overall, 46 households were interviewed in 2015. A total of 133 interviews were conducted in the communities of Marshall, Russian Mission, Ruby, and Fort Yukon. Information was reported on 13 YRDFA teleconferences and weekly summaries (see Table 1). Subsistence fishers' harvest progression throughout the run, as relayed by the interviewers, was considered by the federal inseason manager when evaluating management decisions.

Table 1: YRDFA In-season Harvest Survey Teleconference participation 2015														
			9-	16-	23-	30-	7-	14-	21-	28-	5-	12-	18-	26-
		Jun	Jun	Jun	Jun	Jun	Jul	Jul	Jul	Jul	Aug	Aug	Aug	Aug
Marshall	Norma Evan	Х	Χ	Χ	Х	Х	Х	Х	Χ	Χ	Х	Х	Х	Х
Russian Mission	Basil Larsen	Х	Х	Χ	Х	Х	Х	Х	Χ				Х	
	Ed Saarten/Ellis													
Ruby	Wright	Χ			Χ	Х	Χ	Χ	Χ	Χ	Χ	Х	Χ	Х
Fort Yukon	Andrew Firmin			Х	Х	Х	Χ	Х	Х	Х				

A goal of the program is to report subsistence harvest progression towards meeting fishers' needs for Chinook salmon. With the anticipated conservation closures on Chinook salmon starting in 2014, the

managers requested that program collect chum salmon harvest information and to document what fishers are doing instead of targeting Chinook salmon. Additionally, a goal in 2015 was to document whether fishers had access to the allowable gear type and their success using new gear types. As planned, the survey ran for 6 weeks in each participating community while the Chinook salmon were migrating through their community. This benefited the goal of learning about fishing activities during the Chinook salmon season but did not allow for assessments about chum salmon harvest needs met, which is outside of the scope of this project. Progress toward meeting Chinook salmon harvest goals by community were generally zero or very low due to the Chinook salmon fishing closures. In 2015, Fort Yukon was the exception as there was an effort in 2015 to allow them to harvest some Chinook salmon due to the lack of chum salmon in their area. The following table shows the number of households interviewed, the total number of interviews, and the percentage of harvest completion by community over the past 3 years.

Village	# of households interviewed			Tota	l interv	iews	% of harvest completion			
, mage							chum	Chinook	Chinook	
	2015	2014	2013	2015	2014	2013	2015	2014	2013	
Alakanuk		10	18		29	53		47%	34%	
Marshall	12	14	14	70	73	74	40%	45%	1%	
Russian Mission	16	19	8	29	31	32	40%	21%	2%	
Holy Cross		24	24		9	35		0%	2%	
Kaltag		5	5		5	21		0%	45%	
Galena		28	16		60	35		0%	16%	
Huslia		4	0		4	0		3%	0%	
Nenana		12	10		40	29		8%	6%	
Ruby	2			11			32%			
Fort Yukon	16	18	26	23	49	64	42%*	1%	38%	
Eagle		6	5		30	29		0%	0%	

^{*} Fort Yukon 2015 harvest completion for Chinook salmon

A question added in 2014 asked fishers if they would increase their chum harvest to make up for low Chinook salmon numbers. Results for 2015 are as follows. In Marshall, all 12 fishers answered this question with 6 planning to increase their harvest, 4 using dip nets while 5 fishers did not plan to increase their chum harvest. In Russian Mission and Fort Yukon only about ¼ of the fishers answered this question with mixed responses. In Russian Mission 3 hoped they could increase their chum harvest and one planned to harvest the same. The 2 participating fishers in Ruby did not answer this question. In Fort Yukon, 2 planned to increase their harvest and 2 did not.

The In-season Harvest Survey program ran for a total 10 weeks in 2015, staggered and operating for 6 weeks in each community as the Chinook salmon swam past their villages. Our locally hired surveyors participated in the river wide in-season salmon management teleconferences, reporting fisher observations, challenges, and gear usage. Fishers were reportedly affected in 2015 by high water, debris, forest fires, closures on the Chinook salmon pulses, short duration openings and gear restrictions.