Chinook Subsistence Sampling Outreach Program

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The Yukon River is home to Alaskan native village communities whom depend on subsistence harvest for their livelihood. Chinook salmon is a prominent component to the subsistence harvest, but has been in a recent decline. This decline has led to harvest restrictions, fishery closures, and spawning escapements below management goals. To assist research and to better understand the stock biology and composition of Yukon Chinook salmon that are harvested along the Yukon River, fishers from the communities of Holy Cross, Ruby and Fort Yukon were trained to collect biological information from Chinook salmon including length sex, as well as scale samples and genetic tissue. Results of this project are not only important to state and federal Yukon River fisheries managers, but are also important to the communities along the Yukon River who have assisted in the collection of the samples. TCC staff was able to visit the communities of Galena and Holy Cross (via teleconference) in Fall 2012 and Spring 2013 to disseminate some of the basic data collected from the previous seasons effort and to relay the importance of the continuation of the collection of the subsistence harvested salmon. Due to scheduling conflicts and late river break-ups causing flooding, the village of Ft. Yukon was not visited.

Introduction:

Recent low returns of Yukon River bound Chinook salmon have resulted in harvest restrictions, fishery closures, and spawning escapements below management goals. In 2000, the Alaska Board of Fisheries classified Yukon River Chinook salmon Oncorhyncus tshawytscha as a stock of yield concern in response to poor returns and low harvests. To maintain a sustainable Chinook salmon run**,** management strategy must rely heavily on salmon run timing and abundance, age, sex, length, and stock composition obtained from escapement projects and commercial and subsistence harvests. In 2009, the Tanana Chiefs Conference began collecting Chinook salmon biological samples from subsistence fishermen along the Yukon and Koyukuk Rivers. Fishermen are hired to collect age, sex, and length measurements from harvested Chinook salmon, and are paid by the sample. Fishers are taught how to sample their catch in person, rather than explained on the phone or via video. The relationship the biologist builds with the participant often builds trust and increases the willingness to learn. The data collected from subsistence harvested Chinook salmon provides post-season genetic stock identification and information on biological composition of subsistence-harvested Chinook salmon from lower, middle and upper river villages on the Yukon River.

The overall goal of the Chinook subsistence outreach program is to assist subsistence fishers in understanding management decisions that directly affect their lives. Having multiple outreach methods ensures a wider audience is reached, and can further stress conservation efforts

and the overall importance of the project Chinook subsistence sampling project and the future collection of samples.

Methods:

The Chinook subsistence sampling project, contracted out to Paige Drobny of Spearfish Research, took place around the villages of Holy Cross, Ruby, and Fort Yukon. Alyssa Frothingham, the only full time fisheries biologist at the Tanana Chiefs Conference was responsible for all outreach efforts. She has worked in several communities along the Yukon River in the summer of 2011 when assisting in the Chinook subsistence sampling program and has worked with TCC from the summer of 2010.

Post-season presentations were planned in Holy Cross, Ruby, and Fort Yukon and surrounding villages to provide an in-depth look into data collected from the fishing season directly to the fishers and the communities that assisted in the data collections. Face to face interaction with subsistence fishers has proven to be the most successful way to distribute information. These presentations were to be made after the data had been collected and then compiled by the biologist, Paige Drobny. Presentations were planned to be done at Tribal Councils by utilizing pre-existing relationships from the sampling season to set this up in locations such as Holy Cross and Fort Yukon. Handouts will be given out at the meetings, providing another source of information.

In addition to presentations, the Tanana Chiefs Conference's *The Council* newspaper provides an opportunity for information to be reached to our 42 villages in the interior of Alaska. *The Council* is a monthly paper that outlines events and information pertinent for the interior villages. *The Council* is printed and sent out to these villages and is available as an electronic version is online. An article including a brief summary of the Chinook sampling project with detailed results and pictures can harbor curiosity and interest in villages outside of the sampling area.

Results:

Due to staffing changes within the TCC Wildlife and Parks department, staff was unable to complete the project as outlined. Scheduling conflicts prevented the travel to Holy Cross/Anvik, Alaska. Instead, Ms. Frothingham presented at the meeting of the Western Interior Regional Advisory Council held in Holy Cross in October 2012 via teleconference to relay information from the 2012 Subsistence Sampling program to the members of the council (local subsistence use members) and the local community member attending the meeting. Various council members from the Holy Cross and Anvik areas had taken part of the sampling program in the past, and were familiar with the program.

Ms. Frothingham attended the Western Interior Regional Advisory Council's Spring meeting held in Galena in March 2013. Galena community members, various agencies, and

council members were provided a more detailed presentation and a handout on the subsistence sampling project from 2012 and answer questions.

Complications arose when attempting to schedule a presentation in the village of Ft Yukon. Scheduling conflicts and a late Spring Yukon River breakup hindered a successful visit. To compensate, Ms. Frothingham attended the Eastern Interior Regional Advisory Council in Fairbanks, made up of subsistence use community members including the village of Ft. Yukon to disseminate the results of the project. Several council members had assisted the project in previous years. A handout similar to what was provided in Galena detailed the projects results and what fishers had collected.

Finally, by the request of the Tanana Chiefs Conference's Executive Board, a Fish Summit was held in Fairbanks, Alaska in February, 2013. Delegates from each village within the Tanana Chiefs Conference 235,000 miles and 42 villages were invited. A flyer detailing the results of the Chinook salmon subsistence harvest sampling project was passed out for the delegates.

Discussion:

Unforeseen staff changes within the Wildlife and Parks program at TCC prevented the project from fulfilling its goal to the maximum potential. Scheduling conflicts and other commitments left the only biologist at the Tanana Chiefs Conference, Ms. Frothingham with little time to designate to the project. Utilizing previous commitments such as the Western and Easter Interior Regional Advisory Councils and the Tanana Chiefs Conference Fish Summit, Ms. Frothingham was able to relay information of the subsistence sampling project from 2012 to community members along the Yukon River. A large number of people were present at these meetings. Many demonstrated a curiosity and willingness to learn about the Yukon Chinook salmon fishery and assisting in the collection of subsistence harvested Chinook salmon for future conservation efforts. Deliverables for the project include a final report. Anticipated deliverables such as copies *The Council* article, tape of the radio interview could not be provided due to the time constraints previously mentioned.

The need for biological information from subsistence harvested Chinook salmon is more important than ever. Relaying post-season biological information caught by fishers along the Yukon River will continue to assist managers and fisheries researchers and provide locals a meaningful role in the management of the Yukon fishery. It is recommended that outreach efforts for subsistence captured Chinook salmon project continue.