

# **SALMON HARVESTERS' ROUNDTABLE DIALOGUE FOR THE COPPER RIVER WATERSHED**

## **EXECUTIVE SUMMARY**

Changes in our regional climate patterns and in our oceans affect Copper River salmon, and these changes, in turn, affect fishermen harvesting salmon for food, livelihood and recreation. The Copper River Watershed Project (CRWP) believes that a stakeholder group guided by public participation principles<sup>1</sup> will be useful in opening up conversations about ideas for shoring up management of State of Alaska fisheries in the face of drastic budget cuts, for advocating as coordinated voices for more research on how ocean conditions may affect salmon fisheries, for research needs across the Copper River watershed,<sup>2</sup> and for sharing accurate information on management decisions that affect all users. We invite partners to gather and discuss on-the-water conditions, fish, and fishery observations that includes representation from all Copper River salmon user groups. We propose an initial roundtable meeting during the State Board of Fish meeting in December 2017 to bring fishermen from each user group together to reflect on their local knowledge gained from fishing over multiple seasons.

## **INTRODUCTION**

Changes in our regional climate patterns and in our oceans are affecting Copper River salmon. Recent years have seen several environmental shifts such as changes in the Pacific Decadal Oscillation, extreme surface temperatures in the Gulf of Alaska, record size returns of sockeye and pink salmon, smaller than average salmon, statewide declines of king salmon returns, and changes in the dominant prey species of adult salmon and other fishes. Alaska's seafood resources generate billions annually in seafood sales and labor value: "Alaska is home to the nation's largest commercial fisheries . . . and drives an estimated \$5.8 billion in economic activity. Alaska's oceans support vital subsistence and personal use fisheries, and through sport fishing they contribute substantially to a more than \$1 billion recreation and tourism industry."<sup>3</sup>

Ahtna Native Alaskans fished the Copper River and its tributaries for centuries, and followed salmon management practices that they developed over time.<sup>4</sup> Roads were constructed through the Copper River basin to facilitate development in the early 20<sup>th</sup> century, and by 1995, "about 75% of the state's population was

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<sup>1</sup> See International Association for Public Participation, Core Values: [www.iap2.org/?page=A4](http://www.iap2.org/?page=A4)

<sup>2</sup> Potential topics for research needs to prepare for climate change could include fresh water lake acidification, impacts on food web structure in glacial vs. non-glacial rivers, or research on temperature impacts to spawning success and egg/fry development.

<sup>3</sup> Terry Johnson, "Climate Change and Alaska Fisheries," University of Alaska Sea Grant, 2016.

<sup>4</sup> William Simeone and James Kari, "Traditional Knowledge and Fishing Practices of the Ahtna of the Copper River, Alaska," for the U.S. Fish & Wildlife Service, July, 2002.

situated within a day's drive from the Copper River"<sup>5</sup>. Today, of all Alaska's subsistence fisheries, the Copper River is the only one that is accessible by road. Commercial fishing has been practiced at the mouth of the Copper River since the turn of the 20<sup>th</sup> century, first under federal management and then by the State of Alaska. Now salmon are harvested by gillnet, hook and line, fishwheel, and dipnets at permitted locations from the mouth of the river up to Batzulnetas, an Ahtna traditional fish camp.

Competition among growing user groups during periods of declining salmon populations too often leads to unproductive finger-pointing among those users. Unfortunately, such contention impedes the generation of solutions for the resource management challenges being faced.

The Copper River Watershed Project (CRWP) believes that a stakeholder group guided by public participation principles will be useful for discussing ideas for addressing future budget cuts in State of Alaska fisheries management, for advocating as coordinated voices for more research on how ocean conditions may affect salmon fisheries, for research on climate change responses in glacial and non-glacial rivers across the Copper River watershed, and for sharing accurate information on management decisions that affect all users.

## **BACKGROUND/PROBLEM STATEMENT**

For the past decade, Chinook salmon runs across the State of Alaska have been below average.<sup>6</sup> For the Copper River, the State's King Salmon Fishery Management Plan sets a sustainable escapement goal of 24,000 or more king salmon for achieving a sustainable harvest of returning adults. The 2016 escapement of fewer than 12,000 king salmon was the lowest on record. The Alaska Department of Fish & Game's Division of Sportfish explains that "Copper River king returns have been below average since 2009 and spawning escapement over the last five years (2011 – 2015) has averaged 24,864 salmon, and fell below minimum escapement goal in 2010, 2014 and 2016."<sup>7</sup>

We don't know to what extent climate change may be a factor in the decline of Chinook salmon, observed changes in salmon weights and age at return<sup>8</sup>, and changes in return strength of other salmon. A University of Alaska Sea Grant summary titled *Climate Change and Alaska Fisheries* by Marine Advisor Terry Johnson has distilled several take-home messages about the research. Some points that seem relevant for Copper River fisheries include:

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<sup>5</sup> William Simeone, "Managing Competition: The Copper River Fishery," Cultural Survival Quarterly Magazine, culturalsurvival.org, September 1998.

<sup>6</sup> Alaska Department of Fish & Game web site, <http://www.adfg.alaska.gov/index.cfm?adfg=chinookinitiative.main>

<sup>7</sup> "2017 Upper Copper River King Salmon Fisheries Restrictions," *News Release*, Alaska Department of Fish & Game, March 6, 2017.

<sup>8</sup> Lewis, B, Grant WS, Brenner RE, Hamazaki T, "Changes in Size and Age of Chinook Salmon *Onchorhynchus tshawytscha* Returning to Alaska". PLoS ONE, June 2015.

“ the sea is changing – it’s getting warmer . . . and water chemistry is changing. Commercially valuable fish stocks are undergoing changes in distribution, abundance, and behaviors. Any projections for stock abundances in the future are very tentative, and observed trends may be specific to regions or locations. Major abundance shifts, if they do occur, will develop over a period of decades.”<sup>9</sup>

Contention among growing user groups over who gets to harvest Chinook salmon and other other salmon during periods of decline consumes a lot of energy among the Copper River’s salmon user groups. For example, a recent headline in the Copper River Record newspaper laments “King salmon season ends before it begins in Upper Copper River drainage”.<sup>10</sup> Two weeks later, the paper contained a letter to the editor urging “Join petition to stop commercial catch of Copper River drainage king salmon until after escapement goals are met.”<sup>11</sup>

We also are seeing State of Alaska funding for managing its salmon fisheries being cut dramatically as the state adjusts to declining oil revenues. And the region lacks funding for coordinating research across federal land managers’ respective agency platforms (BLM, USFS, Wrangell-St. Elias National Park) to understand regional patterns. In addition to changes in ocean conditions, climate change is affecting salmon spawning and rearing habitat in fresh water lakes (spawning habitat for sockeye salmon), the food web structure in glacial and non-glacial rivers, and water temperatures may affect the (historically) linked timing of salmon egg incubation and aquatic insect emergence (a food source for salmon fry).<sup>12</sup>

## **SOLUTION**

We propose to host a forum that provides a venue for fishermen to share their observations in a non-regulatory setting and provides an opportunity for them to voice their questions about changes in river and ocean conditions. A gathering of those folks actually engaged in the taking of Copper River salmon for their food, livelihood, recreation and as part of their culture can begin to address their observed changes on the Copper River system that are affecting them all.

We are modeling the approach used by the Island Institute of Maine, which began holding a fishermen’s climate roundtable meeting in 2004. Over a decade of bringing together the wealth of knowledge within users of a single fishery (lobster), these long-time fishermen contributed significantly to the understanding of ocean conditions and population cycles of their target species and its subsequent management..

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<sup>9</sup> Johnson, p. 2.

<sup>10</sup> “King salmon season ends before it begins in Upper Copper River drainage,” *Copper River Record*, March 9, 2017, p. 1.

<sup>11</sup> “Join petition” letter to the editor, *Copper River Record*, March 23, 2017, p. 4.

<sup>12</sup> Greg Hayward et al., Climate Change Vulnerability Assessment for the Chugach National Forest and the Kenai Peninsula. PNW-GTR-950. USDA Forest Service. 2017.

Individually, tens of thousands of fishermen make up the collection of Copper River “stakeholders”. The term is defined as “anyone significantly affecting or affected by someone else’s decision-making authority.”<sup>13</sup> Users fall into four groups of fishermen for which the State of Alaska issues salmon fishing permits:

- subsistence fishermen
- personal use fishermen
- sport fish anglers
- commercial fishermen

Introductions to this idea for a forum will go out to fishermen from each user group through the State of Alaska’s Copper River Resource Advisory Committees, the federal Subsistence Resource Committees, the Chitina Dipnetters Association, sportfish guide associations, and Cordova District Fishermen United.

To prepare for a late 2017 roundtable meeting, we are actually proposing a series of conversations:

- Introductory teleconference calls May, 2017: using an on-line meeting service or teleconference service, we’ll hold introductory calls with each of the Copper River salmon user groups during which fishermen can hear from others who have expressed interest in participating and raise questions about the roundtable process. We will also talk about selecting a facilitator for the December, 2017 roundtable meeting.
- Planning teleconference, fall 2017: a draft meeting outline will be distributed to the group of interested fishermen for their consideration, and they will again have an opportunity to ask questions about the process and make suggestions for how to make the roundtable meeting productive and valuable to them. This will be a chance to talk about what questions might be asked at the in-person roundtable meeting, and to talk about whether fishermen want to have a resource manager and/or scientist on hand for this first meeting.
- Roundtable meeting, as a sidebar meeting to December 2017 Board of Fish meeting in Valdez, Alaska. The roundtable conversation will be facilitated to ensure that the conversation keeps to the theme of sharing observations (rather than discussing user allocation). The sort of questions we envision asking fishermen include: what are you seeing in your gear/fishwheel/dipnets/on your lines? What surprised you about the fishing season? When you reflect on the most recent fishing year, what was similar or different from past years?

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<sup>13</sup> Chevalier, Jacques, *Stakeholder Analysis and Natural Resource Management*, Carleton University, Ottawa, Canada, June, 2001.

- Post-roundtable follow up: We expect the roundtable meeting to generate questions about research being done on the Gulf of Alaska and the Copper River and what that research can tell fishermen about the future of salmon populations. We also expect to have data gaps pointed out. These questions and some responses will be written up in a meeting summary, and distributed to participants via e-mail. If participants are interested, we will hold a follow-up on-line meeting to discuss responses.

Although this forum is specifically *not* intended to be a place for debating allocation of resources among the different user groups (the State Board of Fish makes those decisions), it could be a place to discuss how king salmon conservation has affected each user and how it might affect us if sockeye numbers decline. Members of competing user groups may not be aware of these changes and how they affect the different fishermen groups. One example is the closures of commercial fishing inside barrier islands where kings are most commonly caught. Those closures were first implemented in 2005 to allow more kings to reach upriver fisheries and spawning grounds. In the Copper Basin fisheries, periodic limits on retaining kings caught in fishwheels or by dipnet have also been implemented. What do the data show about the overall effect on the various user groups and the returns and what data gaps are highlighted by trying to assess these measures?

## **CONCLUSION**

Recent media coverage indicates that fishermen from all types of salmon user groups feel they are adversely affected by limits on their ability to harvest king salmon from Copper River fisheries. The Copper River Watershed Project hopes to collaborate with partners on a forum for conversations among salmon harvest groups that will foster an exchange of observations among fishermen on what they are seeing in their respective fisheries. Collective dialogue may help generate ideas for addressing the State of Alaska's fisheries management challenges and for garnering funding to share data among land managers in the region for identifying cold water refugia and what they might mean for salmon productivity.

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