

# YUKON FISHERIES NEWS

A Publication of the Yukon River Drainage Fisheries Association



FALL 2012

## Yukon River Drainage Fisheries Association

A United Voice for Yukon River Fishers

## Youth-Focused Fish Camps Off to Active Start

By Catherine Moncrieff, Anthropologist

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There were a few more fish camps this year on the Yukon River thanks to a grant received by YRDFA from the Administration for Native Americans. ANA funded YRDFA to hold youth focused fish camps for two years in five Yukon River communities. The goal of these camps is to improve youth well-being by participating in fishing activities and learning cultural traditions from their Elders. As a result of the hard work and enthusiasm of many individuals and organizations, the first year of the camps was a success. Here's how things went:

**Nenana** held their camp for three weeks on the banks of the Nenana River. In preparation, they built a traditional smokehouse. The camp, run by Kelly Ann Burke, attracted 10 to 21 youth daily and incorporated Elders into their activities, covering topics from fishing, fish cutting, traditional songs, language, berry picking, and beading. Kelly Ann was able to creatively re-apply Elders' lessons through a Jeopardy-like game. Elders taught camp participants to cut salmon, which were donated by three different local fishers. The camp wrapped up with a community potluck. Nenana's youth gained a great deal of cultural knowledge from their camp.

**Pilot Station** had a large overnight camp attended by 65 youth. Their camp, located an hour boat ride upriver of the village, is a popular site because of a natural spring and large berry patch nearby. YRDFA staffer Teddy Willoya was able to assist local fishers Nicky Myers and Darin Heckman in harvesting fall chum salmon. The youth worked an assembly line, packing the salmon up the high bank and onto cutting tables. They washed the fish, cut them, and hung them on the drying racks. Most of the youth learned how to cut fish, with older kids helping younger kids. After drying they jarred the salmon. It was rainy and stormy during camp, but youth kept busy with various activities. They stayed in small cabins and a few tents.

**Nulato** held their camp a half hour boat ride from the community at a great spot where YRDFA staff



member Teddy Willoya enjoyed sleeping on the beach. Camp staff taught youth how to fish with a set net, and the youth were able to independently cut salmon. They fished for fall chum and learned many different styles of cutting and processing, including making half-dried.

The **Tanana** fish camp took place at their Spirit Camp location, on an island one hour upriver by boat. Their established campsite has a main kitchen structure where the Elders slept. One of the big challenges the Tanana camp experienced was a fishing closure, which was partially overcome by a donation of salmon from Kwik'pak Fisheries. The many Elders at this camp focused on cultural and language activities. YRDFA staffer Marilynn Woods reported a highly competitive traditional knowledge activity. She was impressed with the expertise of the Tanana youth, who even excelled in knowledge from downriver. A list of Athabaskan

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\*sponsored by Alakanuk Native Corp. \*\*sponsored by Kotlik Yupik Corp. \*\*\*sponsored by Pilot Station Inc.

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# A Message From the Director

By Jill Klein, Executive Director



This fall the top topic of discussion is the king salmon. Statewide in Alaska the king salmon stocks are an important resource that people rely on. On

the Yukon River and all over the Arctic-Yukon-Kuskokwim region king salmon are historically significant. At the recent Chinook Salmon Symposium put on by the Alaska Department of Fish & Game, Dr. Jim Fall of the subsistence division shared that king salmon are a highly utilized resource in Alaska with the highest uses occurring in Western Alaska. We also learned that the amounts necessary for subsistence for the Yukon River as determined by the Alaska State Board of Fisheries have not been met in 4 out of the 5 past years.

When hearing news like this just a few months before a Board of Fisheries meeting where they will be taking up the amounts necessary for subsistence, it makes us question the situation. If there are amounts determined necessary and people are not meeting these amounts, then how are people getting by? This must be impacting their diets, their traditional fishing practices, and their wallets. There are also broader policy implications for king salmon management at a regulatory meeting such as the Board of Fisheries, as the Board tries to balance the need to sustain the resource for future generations while allowing some subsistence harvests.

The Chinook salmon symposium provided a forum to learn from scientific experts about the research taking place, hear a variety of viewpoints from the scientific community, and build a research plan to fill knowledge gaps regarding the health of our king salmon. Local community members dependent on the resource participated from the audience through question and answer sessions. We learned a lot from everyone who participated, and we encourage further and increased use of knowledge directly from Yukon River residents to aid in these important discussions.

Learning about the bigger picture also helps us understand what is happening along the migratory pathway of the salmon lifecycle. The salmon spend a majority of their time in the marine environment. Learning about the

impacts of mortality in the marine environment, and gaining knowledge about the marine and freshwater habitats, will aid our understanding of salmon survival.

These long-term research projects and plans help us answer the questions of why the king salmon are in a decline and if or when their numbers will improve. In the meantime we have to address the fisheries taking place on an annual basis. People have been harvesting king salmon for generations. It is with great hardship that they harvest fewer king salmon. Seeing a respected fisherman and Elder such as Harry Wilde from Mountain Village say he did not harvest one king salmon this summer is upsetting. The king salmon, while declined in number, will stay strong in people's memories and conversations through these fall and winter meetings where we continue to address management of the king salmon fisheries.

Another upcoming event to learn more about analysis, research findings, and management strategies addressing the declined king salmon stocks will be the Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative (AYK SSI) outreach workshop scheduled for December 11-12, 2012 in Anchorage. We will share more information on attendance opportunities for people from the Yukon River as it becomes available. 🐟

## In Memory



### Ephrim Thompson

Long-time YRDFA board member and friend Ephrim Thompson of Mountain Village passed away in Bethel on Sunday, November 4. Ephrim was a steadfast, passionate member of our team who worked tirelessly on behalf of the fishery and his region. He was much loved and will be sorely missed.

*Thanks for all you did Ephrim.*

Our sincere condolences to his family and many colleagues and friends.

## Yukon River Fisheries Meetings Calendar

DATE	MEETING	LOCATION
December 3-6	Yukon River Panel	Anchorage
December 3-11	North Pacific Fishery Management Council	Anchorage
December 10-11	AYK SSI Chinook Salmon Outreach Workshop	Anchorage
January 15-20, 2013	Alaska Board of Fisheries - AYK	Anchorage
January 21-25, 2013	Alaska Marine Science Symposium	Anchorage
January 22-24, 2013	Federal Subsistence Board	Anchorage
February 11-14, 2013	YRDFA Annual Meeting	St. Mary's
February 4-12, 2013	North Pacific Fishery Management Council	Portland
February 20-21, 2013	El Regional Advisory Council	Tok
February 27-28, 2013	YK Regional Advisory Council	Bethel
March 5-6, 2013	WI Regional Advisory Council	Galena

# Salmon Summit Hits On Issues of Concern for Yukoners

By Jason Hale, Communications Director

If you want to understand how much the king salmon run has declined, just visit the Yukon Territory during fishing season. You'll see reductions in fishing, voluntary closures, little-used fish camps, posted notices regarding weak runs... what you won't see is an abundance of fish. Some First Nations have felt the effects of the king salmon decline for a decade or more, and the effects are being seen farther from the headwaters each year.

First Nations and other fisheries stakeholders in the Yukon Territory are concerned, engaged, and eager to act to restore the health of the run. With this as a mantra, the second Yukon River Salmon Summit was held in the Yukon Territory, in the village of Teslin, from October 10-12.

More than 50 people participated in the meeting. This included 8 to 10 First Nations (depending on which primary "hat" some participants were

wearing), nearly every Canadian member and the new Canadian co-chair of the Yukon River Panel (the international body that oversees border passage of Yukon River salmon), most Yukon Salmon Sub-Committee members (including representatives from the federal government, First Nations, and Yukon Fish & Wildlife Management Board), management staff from the Department of Fisheries & Oceans, and the natural resources manager from the Council of Yukon First Nations.

## Key Outcomes

While participants discussed a range of issues and ideas, the main outcomes were:

1. Hold an international meeting with fishers: This outcome was a carry-over from the first Salmon Summit, and it was deemed more important than ever. In essence, this project aims to enhance cross-border knowledge and understanding amongst all organizations, management entities, and governments involved in Yukon River fisheries. CYFN is actively pursuing funding for the event, in partnership with YRDFA and others.
2. Direction for the Yukon Salmon Sub-Committee: Recognizing the role and influence of this committee and the involvement of its members in the summit, participants developed a number of recommendations for the committee to explore. These included maintaining sensible escapement goals, furthering a media campaign on the importance of Yukon River salmon to fishers across the drainage, and possibly pursuing the listing of Yukon River king salmon as a species at risk.
3. Direction for First Nations: Participants recommended that each First Nation

consider taking up certain issues of concern, including: no fishing for one full salmon cycle, engaging in work related to traditional knowledge, allowing more female king salmon to reach the spawning grounds, working on beaver dams, and pursuing the listing of Yukon

River king salmon as a species at risk.

4. Recommendations for improvements to the Yukon River Panel process: First Nations in the Yukon look to the Panel to work toward ensuring that adequate numbers of Canadian-origin salmon reach the spawning grounds, appropriate restoration and enhancement projects receive funding, and their interests are appropriately represented, scientifically, politically, and at the community level. A list of related process improvements was developed and will be shared with the Panel.

YRDFA was honored to have a roll in the coordination and operation of this event, and valued the opportunity to work with our partners across the Yukon Territory. The salmon don't stop at the border, nor does our work on behalf of fish and fisher. The event was planned by YSSC, CYFN, YRDFA, and many First Nations, all of whom made meaningful contributions that raised the bar and set the stage for success. Mitsubishi Corporation Foundation for the Americas generously provided the funding. DFO staff developed presentations and carved out time to join the discussions during a crushingly-busy time of year, and they braved fresh snow and icy roads between Whitehorse and Teslin to participate. Al von Finster, formerly of DFO and now a private consultant, provided insights and assistance throughout the event. Kwik'pak Fisheries donated 100 pounds of delectable chum salmon and Interior Fish Processors provided 80 pounds of delicious strips at cost. Teslin Tlingit Council hosted the summit at their beautiful Heritage Centre at no fee, coordinated cooks and a sound system, gave us a warm welcome, and enthusiastically participated in the event. All of the participants cleared their busy schedules, worked long hours, and shared their views, visions, and expertise. On behalf of YRDFA, I would like to extend my sincere gratitude to each of these individuals; we look forward to working with you again very soon! 🐟

*YRDFA's work on this project is funded through the Mitsubishi Corporation Foundation for the Americas. The statements, findings, conclusions, and recommendations are those of the author and do not necessarily reflect the views of the funder.*



# Voices from the River

This fall, YRDFA communications director Jason Hale asked this question of fishers from up and down the Yukon River. Here are their thoughts:

## “Did you see fishers voluntarily cut back on their harvest of kings this past summer?”

### Paul Beans, Mountain Village

They didn't really have a chance to go out and get the king salmon they would want. Normally they start on the summer chum. My brother got 16 king salmon, and I got four. I didn't see too many king salmon like before in the fish racks. The opportunity wasn't really there.

### Gina Patsy, Nulato

Nope, everyone was out there trying to catch as much as they could whenever the weather permitted. We normally try to get 150 for five families, and we only got 68 or 69 this year. It was pretty poor.

### Emmie Fairclough, Whitehorse

Yes, we did cut back. For my First Nation, we wanted to conserve the king salmon population, so we got our fish from other rivers. Our people could scarcely afford to do this, but the king salmon are just that important. We needed some salmon to teach youth to cut and preserve the fish, to maintain our cultural identify.

### Charlie Wright, Tanana

They had to because of the restrictions. I got enough for the winter, but a lot of people didn't because they only had one net. Three openings in my area only meant about 9 fish for some people. Then again, some people didn't fish for kings and just went after silvers. The silvers did save everybody.

### Debra Duny, Marshall

I had to voluntarily cut back. I usually get more than what I caught. We all cut less than we usually cut and put away for the winter. I would say we did that. Right after the restrictions the bad weather came and it was just crazy.

## “...FISH CAMPS...”

CONTINUED FROM PAGE 1

words was posted and the fulltime language teacher encouraged them to learn a minimum number of local words. The Tanana camp participants were able to swim, play football, and do art, beading, and other cultural activities. The weather was good and they traveled to Stan Zuray's fish camp where they toured his research station and viewed his fish wheel and chum drying for dogs.

The **Galena** camp was held in September and they did a great job of incorporating the school. With over 60 kids participating, they held classroom presentations and took field trips to local smokehouses. Elders came into the Galena

residential school, which has students from all over Alaska, and taught students to cut fall chum salmon a variety of ways, including slabs, strips, and three different ways to prepare half-dried salmon.

YRDFA would like to extend a sincere thank you to each community, and especially to the Elders, for their tireless work to make the camps a thriving reality. We would also like to thank our funders: ANA, the Food Bank of Alaska, and Southcentral Foundation. We look forward to working with all of you again next year! 🐟

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# Stakeholders Propose Changes to King Plan

By Jason Hale, Communications Director

The people of the Yukon River depend on king salmon to meet their subsistence, cultural, and economic needs. For most families, this dependence spans back thousands of years and in part defines who they are. Any restrictions put on the harvest of these critically important fish is a hardship felt deeply across families, Tribes, and communities. As such, any curtailment of fishing opportunity must be done for a very good reason—protecting the overall health of the fishery—and it must be implemented in a way that minimizes hardship on fishing families. It must come from the fishers themselves, as dependents and stewards of the salmon.

Starting in January, YRDFA convened a committee of stakeholder groups to review existing management strategies and develop potential measures to improve king salmon management on the Yukon River through a process driven by Yukon River fishers. The committee included representatives from the lower, middle, and upper Yukon, including an Elders council, the three Federal Subsistence Regional Advisory Councils, the Yukon River Panel, the Association of Village Council Presidents, the Tanana Chiefs Conference, the Council of Athabascan Tribal Governments, YRDFA, and processors.

## Pulse Protection (Board of Fisheries Proposal 131)

The group identified two top priorities: formalizing pulse protection and stipulating that the fishery be managed equitably across districts.

As you may recall, YRDFA presented this information, along with other ideas that did not receive consensus but were deemed worth exploring, to RACs, Tribes, and other stakeholders in the form of a survey in the spring. The public agreed with the committee regarding the need to formalize pulse protection and stipulate that the fishery be managed equitably.

Based on this support, YRDFA developed a proposal to the Board of Fisheries, had it reviewed by a team of subsistence, fisheries science, and management experts, and verified that the original committee supported it. Now we are discussing

it at fisheries meetings across the drainage, as it represents the management measures that users would like to see. Nobody wants to be restricted in their harvest, but if restrictions are necessary, the actions outlined in this proposal are those that

the majority of people riverwide would prefer.

Here are the proposed changes to the Yukon River King Salmon Management Plan (underlined text represents additions to the current language):

5 AAC 05.360 (a) The objective of this plan is to provide the department with guidelines to manage for the sustained yield of Yukon River king salmon. The goal of this plan is to ensure that adequate escapements, both in

numbers and quality, are maintained on the spawning grounds to facilitate rebuilding of the run to historical levels. The department will manage for quality of escapement that provides for

*Nobody wants to be restricted in their harvest, but if restrictions are necessary, the actions outlined in this proposal are those that the majority of people riverwide would prefer.*

## IT'S BOARD OF FISH TIME AGAIN! **Alaska Board of Fisheries AYK Meeting January 15-20, 2013**

By Becca Robbins Gisclair, Policy Director

### The Board of Fisheries Process

The Alaska Board of Fisheries will be meeting at the Sheraton in Anchorage, January 15-20, 2013 to discuss and vote on Arctic-Yukon-Kuskokwim (AYK) proposals. You can view the proposals, meeting agenda, and other information, and listen to the meeting when it's in progress on-line on the Board of Fish site at: <http://www.adfg.alaska.gov/index.cfm?adfg=fisheriesboard.main>.

The Board of Fisheries process includes staff reports, public testimony, committee meetings, and board deliberations, in that order. The full Board of Fisheries meeting is open to the public. Public testimony is taken at the beginning of the meeting, for all proposals. Sign-ups for public comment and committees take place at the beginning of the board meeting.

### How to Participate

#### Attend the Board of Fisheries Meeting, January 15-20, 2013 in Anchorage

- Public testimony is usually taken starting midway through the first day of the meeting and continuing into Day 2. Make sure you are there for the first part of the meeting if you wish to provide testimony.
- If your travel budget or time is limited, it's most important to be there towards the beginning of the meeting if you wish to provide testimony or participate in the committees.

### Submit Written Comments

- Written comments should be received two weeks before the meeting—by January 2, 2013—to be included in the Board's materials.
- If you are providing written comments, list the proposal number and state whether you support or oppose the proposal. If you support the proposal with a change, say you "support as amended" and provide a short description of the change you support. Also briefly explain why you support or oppose the proposal; this will help the board in their deliberations. If you are submitting comments on more than one proposal list them in one letter.
- Page limits:
  - Before January 2: 100 single-sided pages total (for all proposals).
  - After the comment deadline, but before deliberations begin: 10 single-sided pages total (if at the meeting must provide 25 copies).
  - Once deliberations have begun: 5 single-sided pages total, must provide 25 copies.
- Send written comments to:  
ATTN: BOF COMMENTS  
Boards Support Section, Alaska Department of Fish and Game  
P.O. Box 115526, Juneau, AK 99811-5526  
FAX: (907) 465-6094

full representation of the genetic and phenotypic characteristics of the stock and shall use the best available data, including preseason run projections, test fishing indices, age and sex composition, subsistence and commercial harvest reports, and passage estimates from escapement monitoring projects to assess the run size for the purpose of implementing this plan.

#### 5 AAC 05.360 (XX). Pulse protection.

- (1) The Yukon River king salmon run usually enters the river in three distinctive pulses of fish. Management of the first pulse of the king salmon run will be based on preseason projections. Management of the second and third pulses will be based on in-season run assessment data.
- (2) The department will manage the first pulse of the king salmon run based on preseason run projections to not allow any harvest from the first pulse when the preseason projection of run size indicates that subsistence harvests will likely be restricted in one or more districts or sub-districts.
- (3) Based on the in-season run assessment, the department will restrict harvest opportunities on the second and third pulses of Yukon River king salmon, as necessary, to provide for escapements and international treaty obligations;
- (4) The department shall distribute reductions in subsistence harvest opportunities equitably among users.

### Harvest Reporting

#### (Board of Fisheries Proposal 150)

One other topic—improved harvest reporting—did emerge from the stakeholder group as worthy of a Board of Fisheries proposal. The comments we received from the public did not provide clear direction on harvest reporting, which discouraged us from pursuing this option. Then we learned from ADF&G subsistence division that mandatory harvest reporting basically equated to requiring a permit to fish. The public and the stakeholder group both provided very clear opposition to requiring permits. This clarified things for us, and we did not pursue improved harvest reporting further. However, we had already submitted a placeholder proposal to the Board of Fisheries, which appears as Proposal 150. 🐟

*YRDLA's work on this project is funded through the State of Alaska Department of Commerce, Community and Economic Development. The statements, findings, conclusions, and recommendations are those of the author and do not necessarily reflect the views of the funder.*

Tear this out and bring it to the Board of Fisheries meeting for reference!

## Summary of Yukon-Specific Board of Fisheries Proposals

By Jill Klein, Executive Director

**Proposal 130** – Revisit the Amounts Necessary for Subsistence (ANS); there is new data and information for the BOF to review, which may lead to a change of the ranges. The analysis will only include years when there was reasonable opportunity allowed for subsistence fishing; years when there were restrictions will not be included.

**Proposal 131** – Add language to the king salmon management plan to put pulse protection into regulation. The proposal was a placeholder. See attachment for detailed language.

**Proposal 132** – Prohibit the sale of incidentally caught Yukon River king salmon in non Chinook salmon directed commercial fisheries in the entire Yukon River.

**Proposal 133** – Allow for a directed chum salmon commercial fishery in Districts 1, 2, and 3 in the Yukon River with gillnets of 5½ inch or smaller mesh during periods established by emergency order. (Change to the summer chum management plan)

**Proposal 134** – Require 6 inch or smaller mesh gillnets with a maximum depth of 30 inches during June to July in Y-1 if king salmon are a stock of concern; revert back if king salmon are not a stock of concern. (Change to the summer chum management plan)

**Proposal 135** – Allow for a commercial summer chum salmon fishery with 6 inch or smaller mesh size in Y-1 of the Yukon River, beginning July 1, and allowing for additional fisheries upriver chronologically during times of conservation of king salmon—specially, Canadian-origin Chinook salmon.(Change to the summer chum management plan)

**Proposal 136** – Put a cap on the incidental catch of Yukon River Chinook salmon caught in the directed chum salmon fisheries: 2,000 Chinook salmon in Y-1 and Y-2. (Change to the summer chum management plan)

**Proposal 137** – Create an optimum escapement goal (OEG) or in river goal for summer chum that originate above Pilot Station. (Change to the summer chum management plan)

**Proposal 138** – Reduce the threshold for when fall chum salmon commercial fishing can begin from 500,000 to 400,000 fish. (Change to the fall chum salmon management plan)

**Proposal 139** – Allow subsistence fishing to take place during commercial fishing periods by emergency order, and allow changes to the closures before and after commercial fishing periods by emergency order.

**Proposal 140** – Revert back to the windows-only fishing schedule for the Yukon River and maintain that schedule even when commercial fishing

periods begin. (Change to Yukon River king salmon management plan)

**Proposal 141** – Allow concurrent subsistence and commercial fisheries to take place in Districts 1, 2, and 3 of the Yukon River.

**Proposal 142** – Open District Y-5d continuously from July 4-18 for subsistence fishing from below Stevens Village to Circle.

**Proposal 143** – Remove restrictions in Districts 1, 2, and 3 during the fall chum salmon fishing season so that two 36 hour fishing periods per week take place during the summer season only.

**Proposal 144** – Restrict gillnets to 35 mesh depth or a hung depth of 15' in the entire Yukon River drainage.

**Proposal 145** – Restrict gillnets to 35 mesh depth in Districts 1-5 of the Yukon River (does not include District 6—Tanana River).

**Proposal 146** – Restrict all gillnets to 6 inch stretch mesh in the Yukon River.

**Proposal 147** – Allow drift gillnets in district Y-4-A of the Yukon River, upriver to the community of Ruby.

**Proposal 148** – Extend subdistricts 4-B and 4-C drift gillnet area downstream from the mouth of the Yuki River for king salmon.

**Proposal 149** – Create a mandatory harvest reporting system using the current Yukon River catch calendars.

**Proposal 150** – Create a harvest reporting system for subsistence taken salmon in the Yukon River. A specific method was not stated in the proposal. The Yukon River Stakeholder Group did not move forward with developing language do to the lack of a riverwide interest in establishing a mandatory permit system.

**Proposal 151** – Require primary use of subsistence caught salmon within the Yukon area be for direct personal or family consumption as food.

**Proposal 152** – Open Acharon Channel in the Yukon River drainage to salmon fishing, including all waters south from Chris Point to Black River.

**Proposal 153** – Repeal the regulation that closes Fielding Lake to salmon fishing.

**Proposal 154** – Close the Black River and its tributaries to sport fishing for Chinook salmon. Amended by the EI RAC to close the Black River upstream from Chalkytsik up to the mouth of the Salmon Fork, plus the Salmon Fork itself and its tributaries, to sport fishing for Chinook salmon from July 1 to September 30. 🐟

# 2012 Yukon River Salmon Season Overview

This overview provides a preliminary report of the 2012 Yukon River salmon season, which is still underway at the time of this submission.

## Overview

The 2012 run of Chinook salmon experienced the fifth consecutive season of below average to poor salmon production with low returns despite typically adequate escapement levels. Conversely, both summer and fall chum salmon runs performed as expected with above average returns. The coho salmon run was below average.

U.S. management of the 2012 summer salmon season was particularly challenging due to the wide disparity in run strength between the overlapping Chinook and summer chum salmon mixed stock fisheries. Efforts to conserve Chinook salmon were initiated at the beginning of the run and intensified as the season progressed to protect the run all the way to spawning areas. Subsistence fishing was closed for extended periods with fishing gear restrictions during much of the summer season. Sport fishing and personal use fishing were closed, and some commercial fishing opportunity for summer chum was foregone to further conserve Chinook salmon.

Unfortunately, these management actions also significantly blocked subsistence fishers' access to the abundant summer chum salmon, which otherwise could have provided some relief as a food alternative. Many fishers voluntarily lowered their Chinook salmon subsistence harvest to protect the weak stock, some fished harder than usual during the few brief opportunities, and others shifted their harvest to alternative fish species to provide for household subsistence needs this year. In the end, most Chinook salmon escapements were met or below established goals, while most summer chum salmon escapement



objectives were achieved or exceeded. Fall chum and coho salmon stocks have provided good harvests and are on track to reach escapement objectives.

## Summer Season—U.S.

The summer season began with a late ice breakup in the lower river, which was followed by a late Chinook salmon migration. The lower river test fishery project finished with a cumulative CPUE approximately 69% below the historical average. The preliminary end of season Pilot Station sonar estimate was approximately 107,000 Chinook salmon, 28% below the average passage of 148,000 fish. The summer chum salmon run strength estimate of 2.1 million fish was above the average of 1.4 million for the sonar project.

The regulatory "windowed" subsistence salmon fishing schedule was initiated on May 31 in District 1, which typically coincides with the arrival of early Chinook salmon. The schedule was then implemented chronologically in upriver districts as the run progressed. The pre-season management strategy was to fish the "windows" subsistence schedule until the first pulse of Chinook salmon arrived then close subsistence during the passage of that pulse in sections all the way upriver in order to protect the pulse through to the

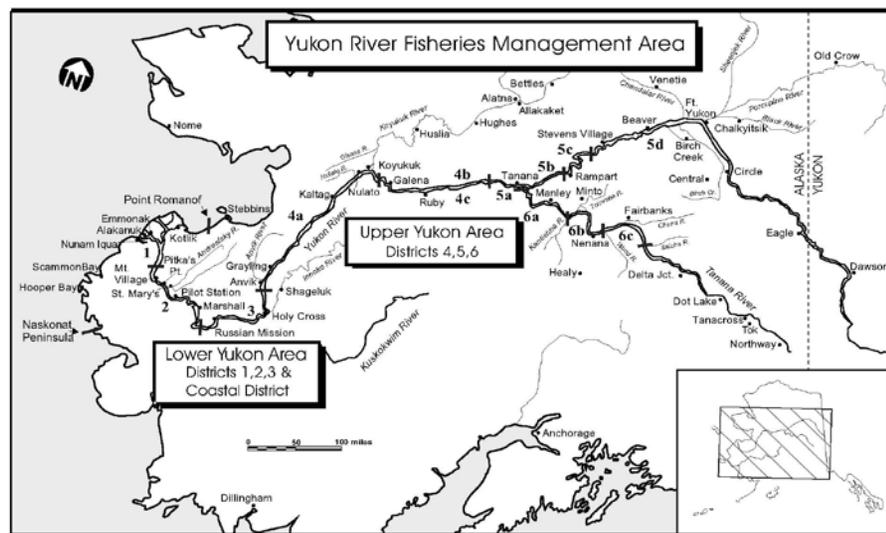
spawning areas. Due to the slow development of the Chinook salmon run, one subsistence salmon fishing period was restricted to gillnets with 6-inches or smaller mesh size in Districts 1, 2, 3, and Subdistrict 4A to conserve Chinook salmon while providing an opportunity to harvest summer chum salmon. Immediately following this period, the first pulse of Chinook salmon arrived, so pulse protection was initiated consistent with pre-season management strategies. One subsistence salmon fishing period was cancelled in

District 1 and the northern portion of the Coastal District beginning June 20 and implemented sequentially in each district or subdistrict as the pulse migrated upriver. The longer Subdistricts 4A and 5D were further subdivided. This provided more precise closure timing around the pulse in these sections of river, efficiently protecting significant numbers of Chinook salmon while minimizing the lost fishing time due to the closure window.

As it became apparent that the Chinook salmon run would fall below expectations, further conservation actions were considered necessary to achieve escapement objectives. The southern portion of the Coastal District had subsistence gillnets restricted to 6-inches or smaller for the remainder of the summer season. The northern portion of the Coastal District, as well as Districts 1 through 5, all had their first pulse closure extended to a continuous closure of both the first and second pulses. This closure was followed by a reduced subsistence fishing period each in Districts 1 through 4 to provide opportunity to harvest some summer chum salmon while continuing to conserve Chinook salmon. Additionally, in both the Innoko and Koyukuk Rivers, gillnets were restricted to 6-inches or smaller mesh size to conserve Chinook salmon. Unfortunately, few summer chum salmon are bound for District 5 and are not available for subsistence harvest. After allowing a short open period, subsistence salmon fishing was again closed in District 5 for the remainder of the summer season because run strength to the upriver area was assessed as below Canadian stock escapement goal levels. All of these management actions resulted in an estimated U.S./Canada Border passage of 35,200 Chinook salmon, which is below the Interim Management Escapement Goal range of 42,500 – 55,000 with no surplus available for the Canadian harvest share as stipulated in the Yukon River Salmon Agreement.

This was the second year that the new fishing gear regulation restricting gillnet mesh size to no larger than 7.5 inches was in effect. The intent of the change was to improve long-term Chinook salmon production by employing fishing gear that tends to decrease the proportional number of large female salmon harvested in the commercial and subsistence fisheries. In addition to this conservation effort, fishing gear in Districts 1 through 3 and Subdistrict 4A was further restricted to no larger than 6 inch mesh once the com-

*Many fishers voluntarily lowered their Chinook salmon subsistence harvest to protect the weak stock, some fished harder than usual during the few brief opportunities, and others shifted their harvest to alternative fish species to provide for household subsistence needs this year*



mercial season began and the Chinook salmon run continued to be poor.

Due to significant overlap of the Chinook and summer chum salmon runs, managers delayed actions to commercially target summer chum salmon until after the average three quarter-point of the Chinook salmon run. Sale of Chinook salmon was prohibited during the summer season commercial fishery and strategic commercial fishing periods were opened in the lower river districts beginning June 29 to target the abundant summer chum salmon while making an effort to avoid the incidental harvest of Chinook salmon. Commercial fishing was opened in Subdistrict 4A and District 6 with fishing gear restricted to allow only fish wheels to target summer chum salmon. Fish wheels were required to be manned during operations and all Chinook salmon had to be released unharmed.

The preliminary total commercial harvest was 317,792 summer chum, with 2,421 incidentally harvested Chinook salmon in the summer chum directed fishery. The Chinook salmon were used in the subsistence community. No Chinook salmon were sold. Chinook salmon escapement objectives were attained in the East Fork Andreafsky, Nulato, and Salcha Rivers while falling short in the Anvik and Chena Rivers as well as below the Canadian Border objective.

### Fall Season—U.S.

Through the front half of the fall season, chum salmon pulses were consistent and on track for a total run size above 900,000 fish, which is considered adequate for escapement needs and subsistence use with a surplus of over 300,000 available for commercial harvest. Therefore, commercial fishing continued in the lower river through-

out the season with attempts being made to align commercial openings with pulses as salmon entered the river. Meanwhile, the overlapping coho salmon run appeared to be developing below average with the commercial harvest of coho remaining within an acceptable level to provide necessary escapement

needs and normal subsistence harvest levels.

The combined fall season commercial harvest through September 3 was 271,015 fall chum and 68,968 coho salmon. The fall chum salmon harvest is currently the highest since 1995 and the coho salmon harvest is the second highest since 1991. However, the commercial harvest is expected to rise in District 6 as the run is just now beginning to build strength in the Tanana River tributary. Escapement assessment will continue through November, but indications at this time are that all fall chum and coho salmon escapements are expected to end within or above most escapement objectives for the 2012 season.

### Postseason

Subsistence salmon harvest information collected in-season indicated that most fishers were unable to meet their Chinook salmon subsistence harvest goals. Because of the need to uphold treaty agreements, the Canadian portion of the Chinook salmon run is of particular

concern. In recent years, First Nations fishers in Canada have reduced their harvest to help spawning escapements when border passage was insufficient. Even with the implementation of the most conservative management actions ever taken that restricted both the Chinook salmon subsistence harvest and the targeted summer chum salmon commercial fishery, only half the escapement objectives were attained and our US/Canada Treaty agreement was not met. It is recognized that the Yukon River fishing community is relied upon heavily for assistance in sustaining this important resource and the community incurred a significant hardship through reduced harvest in conserving this year's Chinook salmon run.

### Canadian Fisheries

The pre-season outlook was for a run of approximately 54,000 to 73,000 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 32,000 and 36,000 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 fishers were asked to reduce their harvest to ensure fish to the spawning grounds. Beginning July 12, the sport fishery catch was varied to zero, and beginning July 26 all angling was closed on Tatchun Creek until further notice. The domestic and commercial fishery remained closed throughout the season. The preliminary First Nation harvest to date is approximately 1,500 Chinook salmon.

### 2013 Outlook

The outlook for 2013 will be prepared by ADF&G after escapement information and age composition analysis are completed over the next several

months. If poor Chinook salmon productivity continues into 2013, conservative management actions will again be necessary to maintain the long term health of the Yukon River salmon population. Given the trend in Chinook salmon runs in recent years, we will be working with fishers and interested parties this winter to develop

conservative rebuilding strategies with the primary goal to provide for escapement needs and subsistence uses during low years while looking for ways to accommodate other fishing opportunities. ☾

*Even with the implementation of the most conservative management actions ever taken that restricted both the Chinook salmon subsistence harvest and the targeted summer chum salmon commercial fishery, only half the escapement objectives were attained and our US/Canada Treaty agreement was not met*

concern. In recent years, First Nations fishers in Canada have reduced their harvest to help spawning escapements when border passage was insufficient. Even with the implementation of the most conservative management actions ever taken that restricted both the Chinook

# Why ADF&G Still Uses Large Mesh Gear

By Dr. Stephanie Schmidt, Yukon River Summer Fishery Research Biologist,  
Alaska Department of Fish & Game

Starting in 2011, Alaskan fishers on the Yukon were restricted to using 7.5 inch mesh size or smaller to allow more and larger females to escape to the spawning grounds in a time when king salmon populations were declining. Larger females tend to produce more eggs, which in turn should help increase the chances that one or more of those offspring would return to be harvested or to spawn several years later. And yet ADF&G continues to use 8.5 inch gear in the Lower Yukon Test Fishery. As you might imagine, the public has expressed concern over this, wondering why fishers had to give up their large mesh gear while ADF&G still uses it. The answer lies in long-term data sets.

As any fisher knows, large mesh gear catches more large fish. If you switch to smaller gear, you might still catch a few large fish, but you'll catch more smaller fish. So, if you wanted to track how many large fish are coming in the river, large mesh would give you the best measure. The Department has been doing this continuously for nearly 30 years at the mouth of the Yukon, and the information collected is now the longest-term data set on the entire river.

Why are long-term data sets important? Maybe an example would be useful.

If you have a particularly cold winter, and you only have a few years of experience living in that area, you may not know if that winter is abnormal. However, if you have several decades of experience living there, you might notice trends that might help explain the temperature differences over time and help you predict for future winters. So it goes with fish: the longer the data series or years of experience, the more useful it is.

The other consideration is how you measure whatever you're tracking—temperature, fish, anything really. You need to be consistent so that you can make true, accurate comparisons

between years. If you're measuring temperature, you should take it from the same place using the same equipment to avoid differences caused by changes. If you're looking at fish, you need to harvest them at the same spot using the same gear, too. If you changed gear size, you'd be targeting a different portion of the fish community.

In the case of the Lower Yukon Test Fishery, if you switched to 7.5 inch gear you'd be targeting more small fish, you'd lose the continuity of your data set. You would also no longer be tracking the health of those valued larger fish. If there was a change in the fish community due

*If there was a change in the fish community due to environmental or human-caused factors happening at the same time, it would be difficult to note whether the shift was due to those factors or due to the change in the mesh size being used in the test fishery.*

to environmental or human-caused factors happening at the same time, it would be difficult to note whether the shift was due to those factors or due to the change in the mesh size being used in the test fishery.

It's worth noting that the Lower Yukon Test Fishery doesn't take many fish... just enough to assess run timing and abundance. The total number of Chinook caught in the 8.5 inch set net test fishery represents less than 1.8% of the total run size across all years

and averages less than 1% of the run size each year. In the big picture, the number of Chinook caught in the test fishery is relatively small. Additionally, all Chinook caught in the test fishery are donated to local subsistence fishers.

The Department is also looking at ways to minimize the number of Chinook caught in the test fishery even further, including potentially ending the project a little early. However, since the LYTF is the first look at the run coming into the Yukon River and is important for management decisions, we need to make sure the valuable information being gained from the test fishery is not compromised. 🐟

## Salmon Symposium Brings Together Scientists & Fishers

By Freddie Olin, Volunteer



I am Freddie Olin from Tanana and Ruby, Alaska. I am presently a student in the UAF

Rural Development program, and I began volunteering at YRDFA in September 2012 in Anchorage. I had the opportunity to attend the Alaska Chinook Salmon Symposium, coordinated by ADF&G, on October 22nd and 23rd at the Egan Center in Anchorage.

The symposium was well attended by federal and state agency managers and staff, university scientists, commercial and subsistence fishers, and members of the general public. ADF&G invited around 30 scientists and managers to speak on topics concerning the Chinook salmon fishery and take part in panel sessions open to discussions with the public. Presentations made at the symposium are available on the ADF&G website ([www.adfg.alaska.gov/](http://www.adfg.alaska.gov/)).

The presenters and the panelists were knowledgeable of many types of data. The biggest topics were the low numbers of Chinook salmon the past several years, salmon bycatch in the Bering Sea, and the general ecological environment for Chinook salmon in the Bering Sea and river systems.

Symposium attendees asked the panelists a wide variety of questions. One good question asked by a young lady during the session on the marine environment was: "How close are current studies to identifying the main issues on the low Chinook salmon runs?" Dr. Kate Myers, a fisheries scientist recently retired from the University of Washington, replied "Probably 40 to 50 percent."

The symposium was a great chance for scientists, management, and fishers to work together on recent Alaska Chinook salmon issues. 🐟

# Salmon Bycatch in the Bering Sea Pollock Fishery 2012: Numbers Low, But Impacts Still Troubling

By Becca Robbins Gisclair, Policy Director

## Another year of (relatively) low king salmon bycatch

With pollock fishing 98% complete as of October 25, king salmon bycatch is at 10,413 fish. While any bycatch is too much in these times of severe king salmon shortages, at least bycatch has remained relatively low: this year's bycatch is the fourth lowest on record since 1992. The pollock fishery reports that fishing is almost complete, so it looks like we'll avoid the October/November bycatch spike, which brought king salmon bycatch numbers up at the end of the season last year. This year, total king salmon bycatch remained well below the regulatory cap of 60,000, the performance standard of 47,591, and even the 30,000 fish cap that Western Alaskans requested.

This was the second year in which the pollock fleet operated under Amendment 91—the new king salmon bycatch management measures, which include a set of hard caps. The experience in year two of the program has been slightly better than year one. However, with the dramatic declines in king salmon throughout Western Alaska and the severe restrictions on in-river users, the regulatory upper limit on king salmon bycatch—60,000 fish—appears to be set much too high. While the fleet has not come close to even half of that cap in the past two years, the fact that they are able to is troubling. As part of Amendment 91 the North Pacific Fishery Management

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moving forward this new information will give us a better idea of the stock of origin of the king salmon taken as by . Current information has shown on average about 50% of the king salmon bycatch is of Western Alaska origin. However, the most recent information from the 2010 fishery found that 42% of the sample was of Coastal Western Alaska origin (including the lower Yukon), 20% Upper Yukon River and 11% Middle Yukon River.

## Chum Salmon Bycatch: Council looks at options again in December

Chum salmon bycatch has also remained low this year. As of October 25, the Bering Sea pollock fishery has killed 21,918 chum salmon through bycatch. This is much lower than the 2011 bycatch of 191,500 chum salmon and well

below the 10-year average (2002-2011) of 208,450 chum salmon. Unlike king salmon bycatch, which is 50 to 80% Western Alaska stocks, chum salmon bycatch consists predominately of Asian stocks. Based on 2010 genetic stock identification information, about 22% of the bycatch is of Western Alaska origin (including lower Yukon and middle and upper Yukon).

The Council is still in the process of developing new measures to reduce chum salmon bycatch. They last reviewed an analysis of potential actions at their March 2012 meeting in Anchorage. At the upcoming December meeting in Anchorage the Council will review a revised analysis. The alternatives, or options, under consideration include a range of hard caps that would close the fishery when reached, and hard caps applied to June and July only when Western Alaska salmon are caught in higher proportions in the bycatch. The alternatives also include an option for the fleet to participate in a rolling hot spot system, as they currently do, and to modify the current program to make it more effective. Another option would apply a backstop triggered area closure in addition to the hot spot program. Any of these options could be combined: for example, a hot-spot system and hard cap could both be applied.

The process of designing new chum salmon bycatch measures is complex, and that's why it's taking so long. King salmon remain a conservation priority, so the Council is being very careful that actions taken on chum salmon bycatch do not unintentionally increase king salmon bycatch. The large presence of Asian hatchery stocks in the bycatch also make this action challenging.

The Council meets at the Anchorage Hilton December 3-11, 2012 to consider this issue. The full agenda will be posted at <http://www.fakr.noaa.gov/npfmc/> when it's available. It's important that the Council continues to hear from Western Alaskans about how important chum salmon is to Western Alaska communities and cultures, and how critical it is to reduce chum salmon bycatch.

## What you can do

You can provide public comment at the upcoming meeting, or send a letter by 5:00 pm on Tuesday, November 27 to:

North Pacific Fishery Management Council  
605 West 4th Ave, Suite 306, Anchorage, AK 99501  
Email: [npfmc.comments@noaa.gov](mailto:npfmc.comments@noaa.gov)  
Fax: 907-271-2817

Tip: All comments must include the submitter's name and affiliation. Make sure to reference BSAI chum salmon bycatch in the subject of your e-mail or heading of your letter. 🐟

*This article was prepared by YRDFA under a grant from the Oak Foundation, Alaska Conservation Fund's Alaska Native Fund, and the Patagonia Environmental Grants Program. The statements, findings, conclusions, and recommendations are those of the author and do not necessarily reflect the views of the funders.*

# Early Life of Salmon May Be Key to Declines

By Dr. Katie Howard, Fishery Biologist, Alaska Department of Fish & Game

Every year each female Chinook salmon that spawns in the Yukon River produces thousands of eggs. Hundreds of fry might survive from those thousands of eggs and even fewer smolt will make it out to sea. More baby salmon die before the end of their first year in the ocean than are ever killed in the Bering Sea pollock fishery bycatch. In fact, 9 out of 10 salmon will likely die of natural causes by the end of their first year in the ocean. They'll be eaten by predators like marine mammals, larger fish, or birds; they'll die of starvation; they'll get sick; they'll get caught in unfavorable currents or ocean conditions; they'll be too small and have too little fat stored up to keep them going through the harsh Bering Sea winter. In good years, maybe 4 offspring from one female Chinook salmon will return as adults 5 or 6 years later. In poor years only 1 or 2 offspring will return as adults. The difference between 4 returning offspring from every mother and 1 to 2 returning offspring doesn't seem like much, but that is the difference between run sizes of 300,000 fish seen in the 1980s and run sizes of just over 100,000 fish, like we've seen on the Yukon River in recent years.

Since so many fish don't survive past their first winter at sea, the early life of salmon is likely important in determining if 4 fish will later return from every mother or if 1 fish will return: that's why I'm sitting on the fishing vessel Bristol Explorer alongside researchers from the National Marine Fisheries Service and the University of Alaska Fairbanks (UAF). We're gathering information on marine ecology—all living things in the ocean and their

*Since so many fish don't survive past their first winter at sea, the early life of salmon is likely important in determining if four fish will later return from every mother or if one fish will return*

environment—from Nunivak Island north to the Chukchi Sea and from Norton Sound offshore to St. Lawrence Island. Since this is the area where Yukon River Chinook salmon rear and grow prior to their first winter at sea, this information will tell a story about life of Yukon River Chinook salmon during their first year in the ocean. These surveys have operated in August/September since 2002 (although no survey was conducted in 2008).

The Bristol Explorer stops periodically at stations throughout this huge area of the ocean to collect different kinds of information. An oceanographer, Florence, teaches me how she studies the ocean environment, which interests me because it allows me to learn about the water

and tiny plants and animals that affect salmon when they're in the ocean. Florence has an instrument called a Conductivity-Salinity-Depth, or CTD, device. The CTD gets lowered down to the sea floor at each station and slowly pulled back up. The CTD collects information on temperature, depth and salinity (saltiness) of the water. The CTD also collects water samples. When the CDT gets back to the surface and on the boat, Florence and I gather the water it has collected in the ocean. This water is used by Florence and her colleagues to understand how many nutrients are in the water



Size range of juvenile salmon in the ocean. Photo credit: Jim Murphy

to support plant and animal growth, how much oxygen is in the water to allow plants and animals to grow and live, and what the phytoplankton is like. Phytoplankton—algae so small it can't be seen by our eyes—is food for zooplankton—animals so small they can't be seen by our eyes—and that zooplankton is food for even bigger animals, like fish.

While Florence and I are examining water samples, other researchers are putting fine mesh nets in the water to look for zooplankton. Zooplankton are food for young capelin, juvenile chum salmon, and other fish... and, of course, many of these fish such as capelin are important food for growing Chinook salmon. Together the information from the CTD and from the zooplankton nets tells us if the water is too cold or too warm for salmon, if the water has enough basic nutrients and oxygen to allow tiny phytoplankton to grow and provide food to zooplankton, and if there are enough zooplankton to provide food for the food that Chinook salmon eat. Any of these ocean conditions or food sources could provide an important clue to understanding why so few Chinook salmon have returned to the Yukon River in recent years.

Learning about ocean conditions and salmon food isn't enough. We want to know how many little salmon survived from egg to fry to smolt, made the long migration to the ocean, and are surviving in the ocean. At each station, the boat's crew of experienced fishers conduct a test fishery similar to those used on the Yukon River to assess the number of salmon in the river. This test fishery doesn't just catch salmon though. This test fishery catches jellyfish, herring, capelin, cod, smelt, and many other animals. Chinook salmon never make up much of the catch, and many tows of the net don't catch any salmon. So when a salmon is caught, every piece of the salmon is used to get as much information as possible.

When the net comes on deck after a tow, researchers quickly sort out different kinds of fish, and salmon are sorted out first; all other animals in the catch get sorted and analyzed for other projects. Stacy, a researcher from UAF, and I take the salmon and get right to work on collecting information. I measure the length and weight of each salmon. Most Chinook salmon are only about 7 or 8 inches long in their first year in the ocean, chum and pink salmon are even smaller, but coho salmon are larger. Young Chinook salmon

can vary in size though, with some being less than half a foot long and others being about a foot. Smaller individuals may not survive the winter so keeping tabs on the size of fish each year is important.

When I'm finished taking measurements, Stacy takes blood from salmon the same way a nurse would take blood from your arm to conduct health tests. The blood tests give us information on how healthy the salmon is and how well they are growing. Salmon are kept to gather information on their diets, genetic samples are taken to help us determine how many of these fish are from the Yukon River, fish are evaluated for how much fat they have stored for winter, ear bones of fish are analyzed to determine how old they are and how many days have passed since they left freshwater (ear bones form rings just like those that trees form and can be counted to age the fish)... These are just a few pieces of information we collect on each Chinook salmon. Among the questions scientists are asking about causes of declines in Chinook salmon are:

- Are there years when Chinook salmon are too small to survive their first winter at sea?
- Are there years when there isn't enough food for young Chinook salmon to thrive?

- Are there years when temperatures in the ocean are harmful to young Chinook salmon?
- Are there years when the timing of when salmon leave the rivers makes them more vulnerable to not finding food or being eaten by larger animals?
- Are there years when Chinook salmon don't grow well or don't store enough fat for winter?

We hope that all of this information will, together, tell us a story of the early life of Yukon River Chinook salmon and will help us better understand why run sizes have been so poor in recent years. On the Yukon River we have the benefit of accumulated knowledge gathered from generations of fishers who have observed adult salmon returning to the river over hundreds of years. People know the story of adult salmon. In the ocean we have far fewer observations, so understanding the story of juvenile salmon may take some time. If we can find information that will help people in Western Alaska understand why Chinook salmon have been declining and that can help us predict future runs, then the time and effort researchers and fishers on the Bristol Explorer are putting into gathering these observations will be well worth it. 🐟

## Changes to the Canadian Fisheries Act A Practical Approach to Managing Threats to Fisheries

By Department of Fisheries and Oceans Canada



In June 2012, Canada's Fisheries Act was amended, and Fisheries and Oceans Canada (DFO) began transforming the way it protects fisheries across the country to increase efficiencies and focus on priorities that matter to Canadians.

DFO is moving away from the current approach that subjects all activities—from the largest industrial development to the smallest personal project on private land—to the same rules, which is unnecessary to protect the productivity of our fisheries.

Instead, it is adopting a practical, common-sense approach that focuses on managing real threats to Canada's recreational, commercial, and Aboriginal fisheries and the fish habitat on which they depend. This approach draws clear distinctions between different types and sizes of

projects and waterways and takes into account the potential serious harm to our fisheries. Until the new fisheries protection provisions come into force, the current habitat protection provisions (sections 32 and 35) continue to apply.

*DFO is moving away from the current approach that subjects all activities—from the largest industrial development to the smallest personal project on private land—to the same rules*

Changes to the Fisheries Act also strengthen the government's ability to enforce the rules by aligning penalties with the tougher provisions of Canada's Environmental Enforcement Act and making it easier to crack down on those who break the rules.

DFO will work to develop the regulations, policies, and other tools needed to effectively implement these changes. Through this process, it will further define its new approach and develop the tools required to implement it, in order to provide

predictability and clarity for Canadians working on or near water.

Under the new rules, the Minister of Fisheries and Oceans will be able to enter into agreements with conservation groups to enable them to undertake measures that enhance fisheries protection. This could include innovative approaches to protect habitat, support for aquatic invasive species outreach, and the development of standards for fish protection or other matters. 🐟

### What's Up with WASSIP?

The Western Alaska Salmon Stock Identification Project is nearly complete! It involved nearly 2,000 miles of shoreline, roughly 320,000 samples collected, and some 156,000 samples analyzed. The draft report will be out on November 5; the final report is expected on November 19. Watch for more information at upcoming Board of Fisheries meetings, or check out the WASSIP website for the report, maps, technical documents, minutes, and so much more. 🐟



## Every Fish Counts: Eagle Voluntarily Cuts King Harvest

By Concerned Eagle-area Fishers

We have all been suffering from the poor king salmon returns over the past five to six years. Canadian and upper Yukon Alaskans have been witnessing the reduction of fish both in numbers and in size for 10 years now.

For several years Canadians have voluntarily reduced their catch of kings, or forgone their king harvest entirely, for the sake of getting more fish to the spawning grounds for future returns. This year, many people on the Alaskan side of the border followed suit.

Most of the subsistence fishers from the town of Eagle got together this year to develop a plan to reduce their household harvest of kings by 50 to 80 percent. The plan was to put less gear in the water and to work cooperatively to share the harvest. Groups of 4 to 5 families were planning to share fish wheels and nets. As the poor return materialized in-river, many families decide to reduce their harvest further to only a few fish per household. The decision was made to take a chance on the strong predicted run of fall chum to supplement the reduced harvest of king salmon.

Most of the fish wheel operators in Eagle are dog mushers and rely heavily on fall chum to maintain their traditional way of life. Most villages in our region still use dogs primarily for trapping, work, and transportation.

"Initially, we were not going to fish this year for kings at all, but then we made the hard decision to fish one day, and one day only, to get the kids on the river so they would see how to set the net," says Mike McDougall, father of six, who lives a traditional subsistence lifestyle. "It is very important to us that our kids learn how to fish. We all packed in the boat and set the net together. We checked the net the next day and caught eight fish. I pulled one out of the net and showed it to our two-year-old daughter Flora, who looked at it wide eyed because it was as big as her! Later she made the connection as we were cutting it. She looked at it excitedly and started yelling "dinner!" over and over. It is our sincere hope that Flora and the rest of our children will grow up fishing for their own food and pass this knowledge and tradition on to their own kids. We recognize that drastic conservation measures are needed now to ensure king salmon for the future. What this ultimately means for us is that the fall chum are even more important now than ever."

Runs are at all-time lows, with less than half of the run returning compared to the 10 year average. Things are even worse if you look at the 30 year historic average. We are all faced with a very tough decision to make:



Should we continue to fight over the few remaining fish to be caught? Or should we be responsible stewards of the resource and *Lay off the kings*?

Should we continue to fish the resource to the point of not meeting escapement goals to Canada, which produces 50 percent of the entire king run on the Yukon, or should we *Lay off the kings* so we can ensure meeting escapements and help to rebuild future runs of king salmon?

People of Eagle Alaska only have a run of kings in July; summer chum don't come here. The fall chum come in mid-September. Very few other species of fish are in large harvestable numbers.

So in the summer we sit with gear out of the water, we hope and pray that the fall chum run will be strong, and that those down river of us will pass fall chum up river so we may have some fish for the winter. They are not like kings... the fall chum is marginal as human food, but it is food. Living a subsistence lifestyle means constantly adapting to changes in climate and resource availability. Sometimes you do not get what you want, both in quality and quantity. So you look to other resources to get what you need.

Many of us do not expect to target king salmon again in our lifetime. It is very sad for us. We only hope that people along the entire Yukon can begin to work together and be considerate for others before we all totally destroy one of the greatest king salmon runs anywhere in the world. Only

through self-control, and understanding of others, will we all be able to ensure that this great run returns.

We are making the right choice to become better stewards of the resource. We do this so the "Flora's" along the Yukon River may someday grow up to be able to cut their own fish and exclaim excitedly "dinner! dinner!"

What will you do for the future of the fish and your children? 🐟

### We have a tough choice to make:

Continue to feel like a victim of reduced fishing time, and complain,

or

Become an advocate for good stewardship, and take care of the resource that has taken care of us.

*You will not be alone, many people are already making the choice to take fewer king salmon, shift to other species, and give the kings a chance to rebuild.*



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## Commercial Fishing During King Season: A How-To Guide Kaltag's Successful Chum Fishery

This past summer commercial fishers and processors pulled-off the impossible—a responsible commercial fishery on chum salmon during a poor king salmon run. How did they do it? We asked one of the masterminds, Richard Burnham of Kaltag, that very question and many more.

**YRDFA:** *Let me get this straight... subsistence fishing was severely restricted due to the poor king salmon run, but in Kaltag people were commercial fishing for chum? How'd that work?*

**RB:** We hired 2 people to man each commercial fish wheel, and they used a chute system—whenever a king salmon would come in the wheel we'd slide a plastic toboggan under the fish so it could slip back into the water untouched.

**YRDFA:** *Did people really man their wheels the whole time? Were there any problems?*

**RB:** I did leave my wheel for 15 minutes one day to shuttle two workers back to town, and there was a king harvested at that time. It was the only one that I caught, and wouldn't you know it, ADF&G pulled up right then! They were understanding though.

**YRDFA:** *Let's cut to the chase. How many kings were caught?*

**RB:** We almost never saw a king salmon. We only saw 5 or 6 females; the rest were jacks. Generally the kings run on the east shore and the chum run on the west shore. We fished on the west side. Plus the water was raised, so we pulled the wheels closer to shore, so there really weren't any kings swimming through where we fished. There were very few taken... maybe 5.

**YRDFA:** *Wow, that's shockingly low. How many chum were caught and sold, and who bought them?*

**RB:** Ocean Beauty was our primary buyer. They brought in a whole bunch of people to make sure the local plant was ready to go to comply with DEC codes. We filled 5 refrigerator trailers, so 250,000 pounds of summer chum. We also fished for fall chum, and we've never done that commercially before. Long story short, we did not do well with the fall chum fishery.

**YRDFA:** *I'm wondering how much of an economic impact this had locally. How many local people were employed, for how long, and what did they do?*

**RB:** At one point there were almost 50 people working



at the processing plant, and working double shifts. We had people from Galena, Koyukuk, Nulato, Kaltag... also Huslia—there was a ball tournament in town, and two players from Huslia stayed for the rest of the season to work. Plus we had 10 fishermen, and each of them had at least 3 workers, so another 40 to 50 people. That makes almost 100 people at some point.

**YRDFA:** *Will the program continue next year?*

**RB:** That was our biggest worry—would this be feasible. We were told that Ocean Beauty was looking for the program to at least break even. We've been told that they were pretty happy with what they've got, they were at or above that breakeven point, and they are coming back. 🐟