

Yukon Fisheries News

THE OFFICIAL PUBLICATION OF THE YUKON RIVER DRAINAGE FISHERIES ASSOCIATION

SUMMER 2022

YUKON RIVER SALMON CRISIS STATUS REPORT

BY G.K.VICK

CHAIR, FISHERIES SUB-COMMITTEE, FAIRBANKS ADVISORY COMMITTEE¹

All AYK stakeholders know that the Yukon River Drainage, once the biggest producer of Chinook (king) salmon in Alaska is seeing a terrifying decline in Chinook run strength and average size.

While Chinook are declining around the state in both size and escapements (most are stocks of concern), the Yukon River decline is by far the most dramatic and rapid. Summer and fall chum and coho have also crashed dramatically in the last two years. The Yukon River has had no directed (commercial fishery) for king salmon since 2011 and for the last several years, limited to no allowable subsistence king fishing. In 2021 and 2022 there was no fishing for Chinook, coho, summer or fall chum. Neither has the border crossing treaty goal with Canada been met since 2018; the lower end of the treaty has only been met 10 times in the last 20 years. Since the lower end of the goal is 42,500, Canadian First Nations and DFO consider anything below that as the "red zone" which means they do not harvest.² (Yukon Territories has lived without sufficient salmon for subsistence a lot longer than Alaskans.)

Salmon viability/ sustainable productivity is measured by escapement goals. In the Yukon River, that is applied through a BEG (biological escapement goal) for Chinook on the Chena

and Salcha Rivers, and for all other salmon species in the Yukon drainage, through a SEG (sustainable escapement goal.) As of July 27, 2022, Pilot Station Yukon River estimates of passage for king salmon was 44,581, the lowest on record, which is also less than the Chinook harvests in 2000 and 2001. Pilot Station passage estimates (July 27th) for summer chum salmon was 437,032, the second lowest on record. The summer chum escapement estimates (to date) for the Salcha River and Chena Rivers may be too small to maintain viable populations in the Tanana Drainage.³ **This year, similar to last year, and despite no fishing for salmon, NO Yukon River salmon escapement goals will be met. Worse, in 2022 all salmon escapements will be less than half of the all time worst return.**

As this has far-reaching implications for people and ecosystems, the Yukon River emphasis now is on getting as many king and chum salmon to spawning grounds as possible and to enumerate the ASL (age-sex-length.) While we know what there are many environmental factors beyond our control, there also human factors that we can manage to help assist salmon getting to spawning grounds.

CONTINUED ON PAGE 7

HOW DO I BECOME A YRDFA MEMBER?

- Go to yukonsalmon.org
- Go to YRDFA's Facebook page
- Fill out and mail in the form on page 15



**Protecting and
promoting all healthy
wild fisheries and
cultures along the
Yukon River drainage.**





YRDFA Excited to Welcome First Alaskans Intern for Summer 2022

Gabe Canfield “Kungunna” is Iñupiaq, was born in Fairbanks but raised in Ketchikan in southeast Alaska. Her family comes from Wales, Nome, and Ketchikan, and she now lives in Anchorage on Dena’ina Elnena. Her parents are Leah Weyapuk and Perry Canfield of Ketchikan, her paternal grandparents are Pamela Canfield of Ketchikan and William Perry Canfield of Washington, and her maternal grandparents are the late Florence and Walter Weyapuk of Wales.

Gabe graduated from Dartmouth College in 2021 with her degree in Environmental Studies and Native American studies and is excited to be working in the field of Indigenous advocacy and resource management during the past year and into the future.

Gabe is a lifelong Alaskan, avid fisherman, hiker, berry picker, loves being outdoors, going to the gym and being with friends and family.



Photo courtesy of Violet Burnham, Kaltag

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News From the Director

As someone who grew up on the Yukon River, I understand as an Indigenous person that I need to carry on the traditional practices of fishing, processing our catch to our children, and we cannot do that if we do not have fish in our river.

Growing up I was taught not to waste food. I was also taught to not take all of what we hunt or gather because of the need to replenish. At this point, I want every salmon to spawn because it is my responsibility to make sure our children and their children have salmon. I was recently at home in St. Mary's and someone asked me if I was here to go fishing. I told them I was not going to fish because there are too few salmon in our river. They responded by saying, there are other fish to cut. That statement in itself constitutes that we are resilient people and to acknowledge our Elders teachings of the protections of our resources we depend on; to replenish for our children.

Times have changed, both with the weather, water, and the ways we communicate. We know more outside information today than our ancestors ever did. We have the news, radio, and the internet. Information gets thrown at us from all over; often inaccurate and some with the hard truth. I feel the engagement of our people is dwindling because of those hard truths. I believe that the number of our salmon is in crisis. Should we not fish for our salmon during these record low runs? Yes. Why? It is simple. That one salmon we decide to take is one less that will make it to the spawning grounds. We must look at the numbers and we must incorporate the traditional knowledge we were taught to make the right decisions to protect our natural resources.

Yes, I understand that we have been sacrificing and there are other reasons why the runs are low. Warming waters, predators, disease, and humans; we know we cannot change the climate, the disease, and even the predators, but what we can influence is us humans. YRDLA has been taking a stand on areas we can control; such as, bycatch, Area M, and hatcheries. I feel that the State does not comprehend the seriousness of our salmon declines. We have many lessons we can learn from, why are they not taking action?



BY SERENA FITKA

People who do not live a traditional lifestyle need to understand our loss. Something that has been present in every home, at everyone's table, brought with every outing on the land, is missing; has been stripped from us without a warning. This is a tremendous loss financially, culturally, and mentally. What can we do about it? What actions do we know will benefit us in the long run? By working together to influence change; not in anger, but as a collective front, on issues and challenges we are faced with will not go unnoticed.

Our people in the communities are the stewards of our land and resources and we must incorporate western sciences into our traditional knowledge and use them as a tool. There are many reasons the salmon are not returning and we cannot ignore the fact that the number of salmon returning to the Yukon River is so critically low that every salmon matters. So I will use both western science and the traditional knowledge that I learned to let the salmon pass - to replenish for our children.

So let us continue to engage with one another about the status of the Yukon River using both western science and traditional knowledge in hopes to replenish what little we have.

Learning About Coho Salmon in the Yukon River

Where do coho salmon spawn in the Yukon River drainage? Do some stocks/groups of fish swim faster than others? Which area has the most coho salmon? How many more spawning streams can we document? To help answer these questions, the Alaska Department of Fish and Game (ADF&G) will be tagging coho salmon in Russian Mission this year. This is a cooperative project between ADF&G, U.S. Fish and Wildlife Service and Yukon Delta Fisheries Development Association.

Information on coho salmon within the Yukon River drainage is very limited. ADF&G documents harvest from all fisheries; has been developing a coho salmon index of run size; and what little escapement information we do collect annually is primarily on the Tanana River.

Coho salmon juveniles typically spend a few years in freshwater eating insects and copepods. In the marine environment, coho salmon are voracious feeders and grow rapidly with a diet of smaller fishes, such as sand lance, herring, pollock, small amounts of juvenile pink and chum salmon, as well as squid, larval crab and shrimp. Primarily after one year at sea, adult coho salmon return to freshwater to spawn as four-year-old fish. In the Yukon River, migration of coho salmon begins in mid-August, passing through the lower river in early September and some spawning occurs in the upper portion of the drainage in late November perhaps later.

For this project, we intend to apply 350 radio tags, over four weeks (August 10–September 6), to adult coho salmon. Fish will be tagged in the lower Yukon River at a fish camp near Russian Mission. The radio tag will be inserted into the stomach and each fish will have a secondary white spaghetti tag located on the back for external identification. Anyone who catches or otherwise observes a tagged coho salmon may contact ADF&G (907-459-7274) to provide information on their find.

Helpful information includes:

- External tag number (white spaghetti tag)
- Internal radio tag number (frequency 150.### and code ###)
- Tag found inside or outside of fish
- Date caught or observed
- Gear type and mesh size of gillnets
- Sex (cut fish open to confirm if harvested).
- Your contact information (optional)

Community tribal and city offices along the migration route will be provided a flier with information on the project and instructions to report returned tags. If you would like information back on the fish you captured, please provide contact information, name, phone number, and a complete mailing address.

We hope to learn about stock specific migration speeds, run timing, and distribution within the Yukon River drainage. This information will help us manage the various fisheries responsibly and improve future research and assessment. The study is using the existing radio towers infrastructure to track fish through the main Yukon River corridor along with tracking fish movement into larger tributaries such as the Innoko, Anvik, Nulato, Koyukuk, Nowitna, Tanana, and upper Yukon River (above Rapids). Additionally, aerial surveys will be flown to locate fish in tributaries and potential spawning areas. Any new spawning locations identified that were not previously in the AWC Anadromous Water Catalog (AWC; Figure 1) will be submitted for nominations. A listing in the AWC helps provide habitat protection so that migration routes, spawning grounds, and juvenile rearing are sustained for future generations.

Stay tuned for future updates on the coho salmon telemetry project as results will be available in various fishery forums and on Facebook (@YukonRiverFishingADFG).

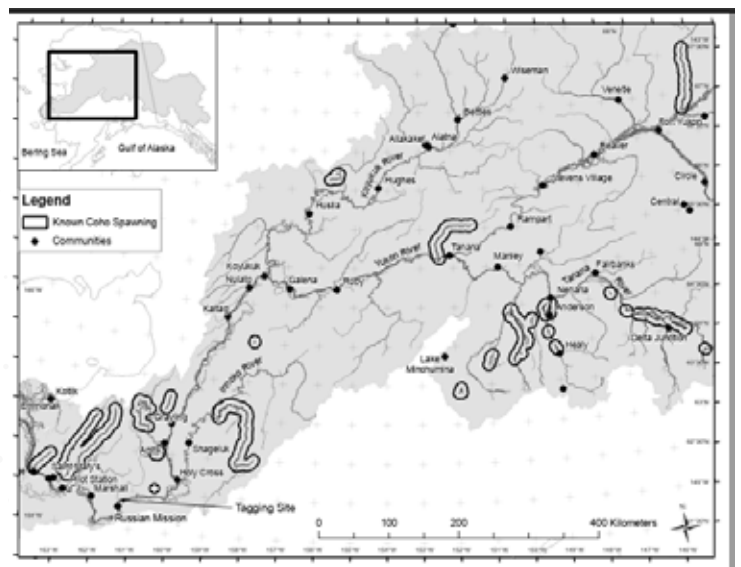


Figure 1. Map of the Yukon River drainage where adult coho salmon spawning areas are documented in the Anadromous Waters Catalog [designated as black outlined buffers on tributaries]. Map provided by Andy Padilla.

INTERNATIONAL YEAR OF SALMON

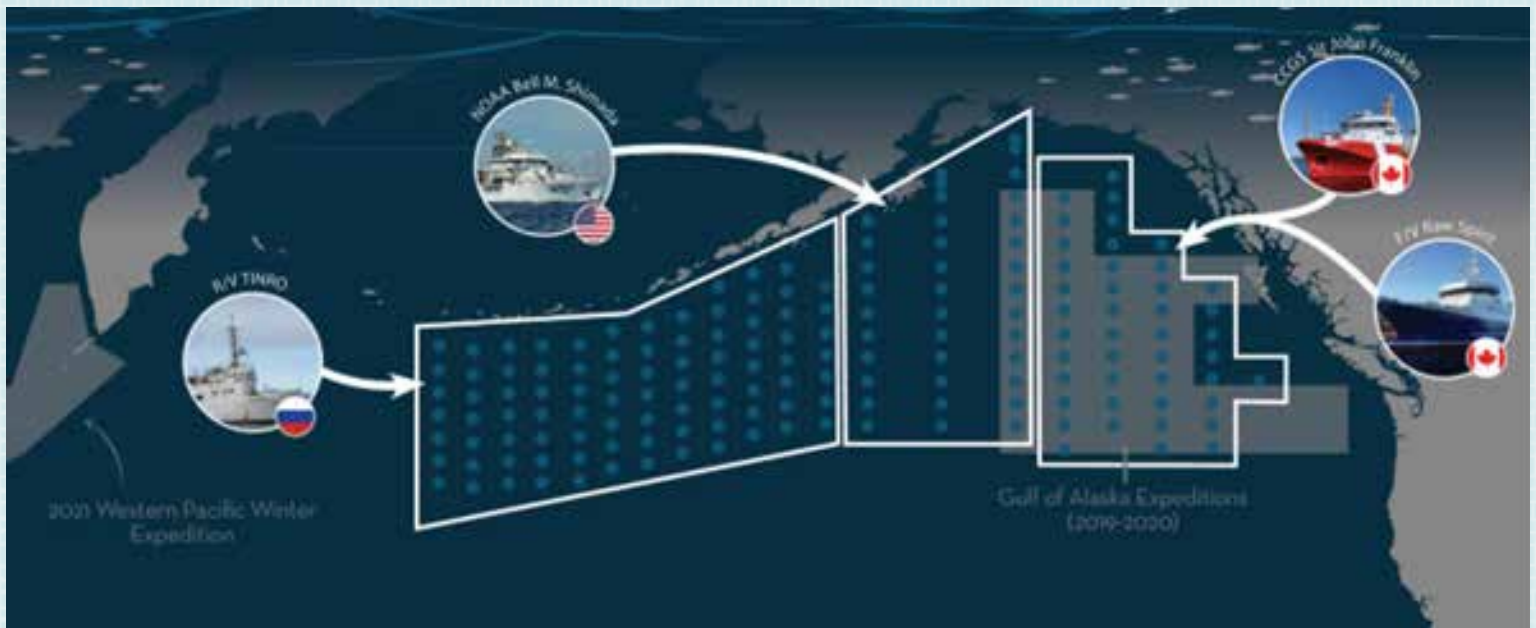
SABRINA GARCIA ADFG, JIM MURPHY NOAA

I recently participated on a research survey to study Pacific salmon in the winter as part of the International Year of the Salmon initiative. For this multi-national expedition, four vessels set out to fish for salmon across the North Pacific Ocean (Figure 1). I was onboard the Bell M Shimada (Figure 2) with a dozen other scientists from Alaska and the Pacific Northwest. Our vessel was outfitted with specialized equipment to study salmon and their environment:

- 1) A conductivity-temperature-depth instrument that measures environmental variables, like temperature, and collects seawater for various analyses
- 2) A system that filtered seawater to collect DNA that marine animals shed in the ocean
- 3) Small nets called bongo nets used to catch zooplankton, small animals that Pacific salmon may eat, and
- 4) A surface trawl net for catching pelagic fish, including Pacific salmon, and other animals, like jellyfish and squid.

After each trawl, the catch was sorted by species, weighed, and measured. We also collected many samples from the salmon we caught: a blood sample to measure hormone levels, scales to estimate age and growth, a piece of tissue for genetic analysis to determine where the salmon was from, stomach contents to see what they were eating, and muscle samples to measure their energy reserves. The information collected from all these samples will help us understand what may be affecting salmon survival in the ocean. Though we encountered all five species of salmon during our survey, we mostly caught chum and sockeye salmon. On the second to last day of operations we caught and satellite-tagged a 6.5 ft salmon shark (Figure 3), so we can track her locations via satellite for the next three years. The best part of the survey was working with and learning from research scientists within and outside of Alaska. Our hope is that the data collected during this survey will help shed some light on the life of salmon in the ocean.

For more information on these high seas surveys: <https://yearofthesalmon.org/high-seas-expeditions/>



Map of stations sampled during the Pan-Pacific winter expedition to study Pacific salmon in the high seas. Each white polygon outlines the zone to be sampled by each ship. The blue dots within the white polygons are stations that were sampled for salmon.

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International Year of Salmon... CONTINUED



Scales were collected from individual salmon to estimate A female salmon shark (*Lamna ditropis*) in the process of being tagged with a satellite transmitter to track her movements for the next three years.



Scales were collected from individual salmon to estimate their age by counting the number of rings on the salmon scales, similar to counting the rings on a tree trunk. The scales were plucked from each salmon using very fine tweezers and placed on cards for later analysis.



A view of the fish processing area aboard the Bell M Shimada. Each individual salmon is barcoded so we can keep track of all the samples taken from an individual fish. The barcodes are visible on the white fish measuring board.



Yukon River Salmon Crisis Status Report... CONTINUED

What are some of the major human management options to increase salmon escapement?

- Standing down, as in not fishing in-river at all
- Reducing ocean and in-river bycatch
- Utilizing gear for non-salmon species that minimizes bycatch of salmon
- Reducing or eliminating intercept of AYK bound salmon
- Enumerating spawning ground and habitat health and assessing “quality of escapement”
- Continuing genetics research on Chinook and chum AYK origins
- Continuing research on salt-water impacts of hatchery stock on wild stock
- Continuing research on juvenile out-migration
- Utilizing further management options to reduce stress on migrating salmon
- Adhering to the practices in the ADF&G / Board of Fisheries Sustainable Salmon Fisheries Policy, June 2001
- Changing Yukon River Chinook from a “Yield Concern” to a “Management Concern”

“The Policy for the Management of Sustainable Salmon Fisheries (SSFP; 5 AAC 39.222, effective 2000, amended 2001) directs the Alaska Department of Fish and Game (ADF&G) to provide the Alaska Board of Fisheries (Board) with reports on the status of salmon stocks and identify any salmon stock that present a concern. In consultation with ADF&G, the Board may designate, amend, or discontinue Stocks of Concern based on stock status reports and recommendations from ADF&G. The SSFP defines three levels of concern (Yield, Management, and Conservation) with yield being the lowest level of concern and conservation the highest level of concern.”

Recognizing that there are limited options for increasing salmon escapement in the AYK, that hatcheries are not a solution, and that the Alaska Sustainable Salmon Policy is inherently a blue-print, we are faced with unpopular, yet vitally necessary, choices in restricting commercial fisheries that affect the weakest resource.

With no salmon retention allowed in the Yukon River, the two biggest areas of contention are the chum intercept at Area M and the Chinook and chum bycatch in the Bering Sea pollock fisheries. The former is dependent on the genetic (stream) origins of Chinook and chum salmon, and the latter is dependent on federal management triggers. It is important to put these impacts in perspective but with severely low abundance every fish counts.

As of July 24, 2022, the Area M intercept fishery has harvested 11,000 Chinook salmon, 673,000 chum salmon, and 11,000 coho salmon⁴, a percentage of which are Yukon River origin. (In 2021, the Area M final harvest of chum salmon was over 2,239,922 fish.)⁵ Since the current estimate of Yukon River genetic origin for chum salmon through Area M is based on the 2009 WASSIP (Western Alaska Salmon Stock Identification Program) there is considerable speculation on the accuracy of extrapolated estimates of Yukon River-bound salmon caught. A more extensive genetic study is now underway with the Alaska Department of Fish and Game (ADF&G), but not expected to be completed until 2026.⁶

“The primary goal of this study is to use mixed stock analysis to estimate the stock composition of chum salmon *Oncorhynchus keta* harvested in South Alaska Peninsula Management Area (southern portion of Area M) commercial salmon fisheries during the 2022 to 2026 seasons. Relatively large harvests of chum salmon in South Alaska Peninsula fisheries in recent years corresponding with small returns of chum salmon to Western Alaska rivers has raised concerns among some stakeholders about the stock-specific harvests in South Alaska Peninsula fisheries. Salmon tagging studies published in 1926, 1964, and 1991 and subsequent genetic stock identification projects conducted in 1993-1996 and 2007-2009 demonstrated significant numbers of non-local chum salmon in the June and early July commercial fisheries of the South Alaska Peninsula. Presently, some stakeholders believe that relative abundances among stocks in the fishery have changed since stock-specific chum harvests were last estimated in South Alaska Peninsula harvests as part of the Western Alaska Salmon Stock Identification Program (WASSIP) in 2007-2009. An updated study that accurately and precisely estimates stock-specific harvests would help resolve these concerns and provide valuable management information regarding the gear- and temporal-specific harvests of chum salmon in select South Peninsula fisheries. This operational plan provides the Alaska Department of Fish and Game (ADF&G) with a sampling and genetic analysis plan to achieve that overall goal.”⁷ Genetic labs in Alaska use single nucleotide polymorphisms (SNPs) to compare data from representative populations. “SNP data reveal complex genetic structure within Alaska and can be used in applications to address not only regional issues, but also migration pathways, bycatch studies on the high seas, and potential changes in the range of the species in response to climate change.”⁸

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Yukon River Salmon Crisis Status Report... CONTINUED

It is the belief of most Yukon River stakeholders that we do not have the luxury of time to wait for new studies to be completed. To that end, the Fairbanks Advisory Committee (FAC) has submitted a proposal to the Alaska Board of Fisheries to be considered in February of 2023.⁹ This proposal is based on a management plan in place between 2001-2003 that saw a significant reduction in Area M chum intercep.

The FAC had also requested, along with the Bering Sea Fishermen's Association (BSFA) and the Yukon River Drainage Fisheries Association (YRDFA) an emergency petition for an Area M June stand down in 2022 but that was not considered by ADF&G due to the belief that Area M chum salmon harvest comprises less than 4% of Yukon River stocks.¹⁰ (In 2021, that would have meant about 90,000 more chum for the Yukon.) However, in a letter of May 27, 2022, BSFA and YRDFA noted that the percentage of chums bound for the entire AYK was extremely significant.

"The Western Alaska Salmon Stock Identification Program ("WASSIP") demonstrates that AYK- bound chum stocks comprised between 25.5% to 67.4% of the June commercial chum harvest in 2007; between 19.5% to 44.4% of the June commercial chum harvest in 2008; and between 49.6% to 67.6% of commercial chum harvest during June 2009."

With the extreme nature of the crisis and the critical unknown factors of more accurate genetics, the BSFA and YRDFA have subsequently requested a meeting this year with the Governor and the ADF&G Commissioner.

The Bering Sea salmon bycatch is managed by the North Pacific Fishery Management Council as it occurs within a federal fishery. While the bycatch numbers remain high, sampling indicates that bycatch of Chinook and chum bycatch constitute less than 1% of Yukon River-origin stocks. In 2019, 1% of the BS salmon bycatch would have meant about 3200 chum for the Yukon.

"The incidental catch of salmon in groundfish fisheries is closely monitored to ensure that all salmon are counted, and representative samples are taken for genetic identification of the area of origin. Every vessel in the pollock fishery is required to have 100% observer coverage. This provides very precise count of salmon bycatch, as the observers count every salmon caught. A total of 32,294 Chinook salmon and 320,478 non-Chinook salmon (i.e., chum salmon) were taken as bycatch in the Bering Sea groundfish fisheries in 2020."¹¹

"Collection of genetic information from salmon taken as bycatch also provides information on what river systems the salmon originated. For example, in 2019, 40% of the Chinook salmon bycatch was estimated to have originated from coastal western Alaska with less than 1% attributed to the middle/upper Yukon River systems. The 2019 chum salmon samples indicate that most salmon bycatch is from Asia (57% and primarily hatchery fish), with less than 1% from the middle and upper Yukon River and 20% from coastal western AK river systems. Annual monitoring of the bycatch indicates that the composition of the bycatch varies somewhat from year to year (for example, in 2017, there was a lower proportion of Chinook salmon from coastal western Alaska and Yukon [25%] and a higher proportion of chum salmon from Asia [71%]). Chinook salmon bycatch in the Gulf of Alaska is almost entirely composed of fish from Southeast Alaska, British Columbia and the Pacific Northwest."¹²

For both Area M intercept and the Bering Sea bycatch, the issue is money. There are billions of dollars¹³ harvested in both these fisheries with powerful lobbies in many sectors - harvesting to processing to retail. Commercial fishing brings jobs, tax money to the state and landing taxes to local communities. It is a simple reality that although Alaska has a subsistence priority in low abundance, providing sufficient evidence to restrict commercial fishing in the name of conservation is always a hard sell. But the Alaska's Constitutional authority and responsibility for its Fish and Game is extremely clear to manage resources for sustained yield. Utilization of the State's "precautionary principle" in the face of an obvious resource crisis should pre-empt all other considerations. After all, if we don't take care of the resource, there will be nothing left for any sector.

¹ NOTE: The information in this report is taken from various state and federal web sites and reports. Always refer to official sources for accuracy.

² JTC - Joint Technical Committee report 2016

³ In contrast, Bristol Bay sockeye have been coming in record numbers the last few years, but they are getting smaller in size on average.

⁴ CFEC - Alaska Commercial Fisheries Entry Commission

⁵ Appendix A-10 2021 South Alaska Peninsula Salmon Annual Management Report and 2020 Subsistence Fisheries in the Alaska Peninsula, Aleutian Islands, and Atka- Amli Islands Management Areas

⁶ Genetic Stock Composition of Chum Salmon Harvested in Commercial Salmon Fisheries of the South Alaska Peninsula, 2022-2026. M. Birch Foster & Tyler H. Dann, ADF&G, 2022 7 Genetic Stock Composition of Chum Salmon Harvested in Commercial Salmon Fisheries of the South Alaska 2022- 2016

⁸ Genetic Differentiation of Alaska Chinook Salmon; the missing link for migratory studies, March 2011, Molecular Ecology Resources, WASSIP project, W.Templin, J.Seeb, J.Jasper, L.Seeb

⁹ Available on request

¹⁰ ADF&G, Commissioner Doug Vincent-Lang, June 22, 2022, letter to Fairbanks Advisory Committee

¹¹ North Pacific Fishery Management Council Salmon Bycatch <https://www.npfmc.org/fisheries-issues/bycatch/salmon-bycatch/>

¹² North Pacific Fishery Management Council Salmon Bycatch <https://www.npfmc.org/fisheries-issues/bycatch/salmon-bycatch/>

¹³ An average Area M purse seine boat earning in 2021 was \$648,000 per CFEC tables, Non-residents earned about 20% more than residents.

Survey Program

JUNE 2022

The YRDFA Inseason Subsistence Salmon Survey program has been running since the early 2000s. The goal of the program is to be a communication tool for fishers to share what they are seeing on the river with both Yukon River fishery managers and Yukon River fishers. We hire one local person in 10 communities along the Yukon River to survey fishers and to report the results anonymously. We kicked off for the 2022 season with a training event in Anchorage on March 23rd. It was a mix of in person and virtual participation in combination with the Annual Board and Preseason Summer Preparation meeting. A second training took place in April two surveyors who were unable to travel to Anchorage in March. The April survey training included a tour of the Anchorage Jack Hernandez Fish Hatchery. The following is our team of surveyors for 2022:

Alakanuk • Max Aguyar
Mountain • Nita Stevens
Village • Diane Fitka
Marshall • Matthew
Russian Mission • Kozvnikoff
Anvik • Alberta Walker
Ruby • Rachael Kangas
Huslia • Lisa Bifelt
Tanana • Stan Zuray
Fort Yukon • Kara'Lisa Tremblay

This program is funded by the Office of Subsistence Management through their Fishery Resource Monitoring Program. We thank them and the Yukon River Regional Advisory Councils for their support.



Matthew Kozvnikoff of Russian Mission with drying sheefish - The 2022 summer harvest is devoid of drying salmon. Sandra Kozvnikoff is very grateful for a small bounty of Sheefish.



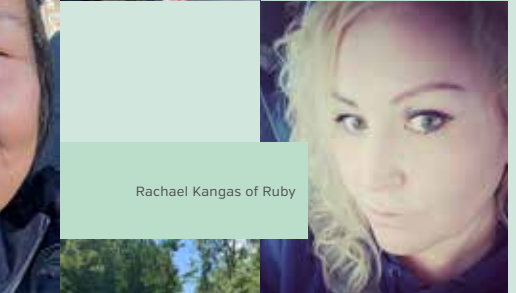
Stanley Zuray of Tanana and the Rapids, on the shores of the Yukon River.



Lisa Bifelt of Huslia with her grandson cutting fish



Nita Stevens of Mountain Village



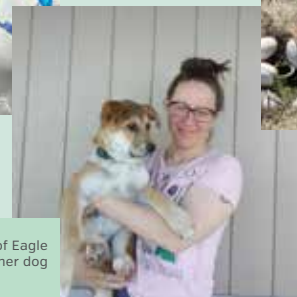
Rachael Kangas of Ruby



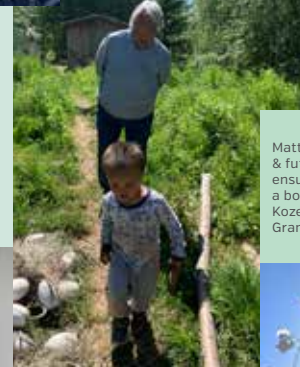
Catherine Moncrieff, Alberta Walker of Anvik, and New Surveyor Diane Fitka of Marshall, in Anchorage at Ship Creek Fish Hatchery after attending Surveyor training 2022



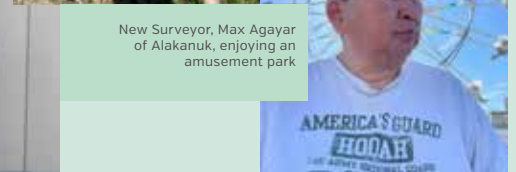
Kara'Lisa Tremblay of Fort Yukon with the Porcupine River in the background



Ruby Becker of Eagle with her dog



Matthew Kozvnikoff - The past & future... a present sacrifice to ensure the future will continue a bountiful harvest. Sandra Kozvnikoff and her Great Grandson Rylen at fishcamp.



New Surveyor, Max Aguyar of Alakanuk, enjoying an amusement park

They Told Us There'd Come a Time....

A Catalog of Elders' Warnings

CATHERINE MONCRIEFF

The Yukon River Drainage Fisheries Association is partnering with the Tanana Chiefs Conference Emerging Leaders to learn from the Elders about the decline of Yukon River salmon. We are in the middle of a 3-year project, funded by the North Pacific Research Board. We thank them for their support.

Our team is:

- Catherine Moncrieff, YRDFA
- Millena Jordan, Rampart and Tanana
- Nataawnee Wiehl, Tanana and Rampart
- Katie Turner, Sitka and Holy Cross
- Tristan Madros, Nulato and Kaltag

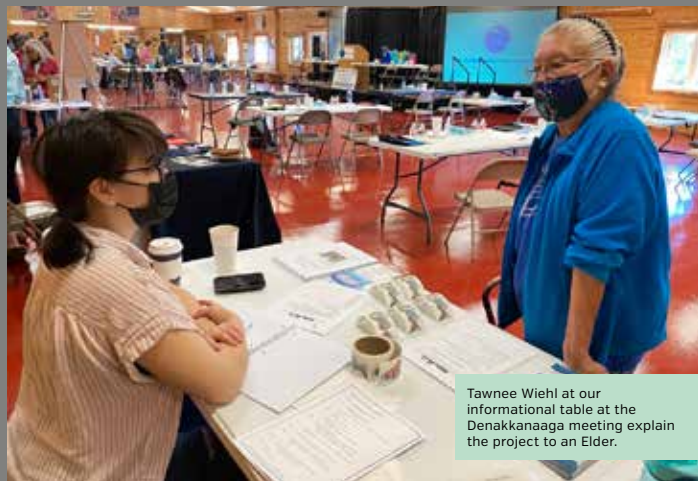


Catherine, Tawnee, Millena and Katie in UAF Archives in Fairbanks. March 2022

In year 1, our aim was to learn about salmon-related warnings or advice from Elders that has already been documented through interviews, Jukebox recordings, and other materials in the Archives. We created a spreadsheet summarizing our research to date.

We are currently in year 2 and our team hopes to interview Elders from their home and neighboring communities. We held a training session in March of 2022 to receive recording equipment and learn how to conduct quality interviews. Millena and Nataawnee traveled to Anchorage to attend the Yukon River Salmon Summer Preparation meeting. While at this meeting they conducted mini interviews during the meeting breaks and spoke to the group about the project.

Millena and Tawnee also attended the 2022 Denakkanaaga Elders and Youth Conference to share our progress and conduct additional mini interviews. We provided a handout with a summary of our work so far.



Tawnee Wiehl at our informational table at the Denakkanaaga meeting explain the project to an Elder.

We have developed a new partnership with a professor at Brown University, Bathsbeba Demuth, author of *Floating Coast: An Environmental History of the Bering Strait*. As she works on a similar book for the Yukon River, she has offered her students to assist us with our archival research. We are currently working with two of them and guiding them towards the type of research that would benefit our project.

As we move into summer, the Emerging Leaders may be reaching out to their Elders to invite you to participate in an interview.



Millena and Tawnee at Preseason Salmon Meeting in Anchorage. March 2022

In Year 3, we will be summarizing what we learned and sharing it through presentations, social media and print materials.



Millena Jordan with her new equipment at the 2022 Training Session.

We welcome your feedback and guidance on this important project. Please contact Catherine Moncrieff at 907-382-8990 or catherine@yukonsalmon.org or one of the Emerging Leaders for more information.

SALMON REPORT

June 16, 2022

The Council received a range of reports related to western Alaskan salmon and salmon bycatch in the Bering Sea pollock fishery, and took several actions. A series of scientific reports were presented on state and federal efforts on Western Alaska Chinook and chum stock status; salmon research; salmon bycatch genetics for both chum and Chinook; and updated information on the impacts of bycatch on Chinook and chum salmon returns to western Alaska rivers, including a Bering Sea Chinook Adult Equivalency (AEQ) and impact rate report and staff suggestions on assessing the impacts of chum bycatch on western Alaska chum salmon returns. The Council also received industry reports on the efforts to reduce both chum and Chinook salmon bycatch under the sector-level incentives plans, a final report on the multi-year salmon excluder project and an overview of SeaShare's hunger relief efforts to distribute donated salmon (and halibut) to food banks.

The Council received considerable public testimony from stakeholders in western Alaska noting the dire state of salmon stocks and the impacts on their health, livelihood and culture as well as feedback from the pollock industry on their efforts to reduce their bycatch of both chum and Chinook salmon. The Council acknowledges the western Alaska salmon crisis and the impact it is having on culture and food security throughout western Alaska. Science indicates climate as the primary driver of poor salmon returns in western Alaska. Nevertheless, the Council is committed to continued improvements in bycatch management with a goal of minimizing bycatch at all levels of salmon and pollock abundance.

With that, the Council took several actions related to bycatch and research. The Council requested the pollock industry to institute immediate measures to reduce chum bycatch during the summer fishery and report back to the Council on those efforts following the end of the B season.

The Council requested a discussion paper on chum salmon bycatch building upon the previous analysis in 2012. Additional items to be included are an updated chum salmon bycatch and genetic stock composition data, a description of the Council's rationale for establishing the current Bering Sea chum salmon bycatch management program; a discussion of tradeoffs in the Bering Sea pollock fishery associated with avoiding different PSC species (e.g., chum salmon, Chinook salmon, herring); and a summary of conditions that have changed since the 2012 analysis (e.g., increased Asian hatchery releases and western Alaska chum salmon stock status). The Council also indicated strong support towards prioritizing further research on Bering Sea salmon.

The Council initiated a Salmon Bycatch Committee comprised of Tribal members, scientists, industry representatives, and other experts, which will provide recommendations on: 1) the discussion paper on chum salmon bycatch; 2) the findings and recommendations from the State of Alaska's Bycatch Task Force and the work of the Western Alaska salmon subcommittee; and 3) current information, including Local, Traditional, and Subsistence knowledge, and needed research to determine what is driving western Alaska salmon declines. A nomination process for the committee will be posted to the Council's website at the beginning of August with appointments to be made at the October Council meeting. The State of Alaska's Bycatch Task Force recommendations will be available in November. The Committee will meet prior to the December Council meeting and provide its recommendations to the Council in conjunction with the review of the discussion paper and Task Force recommendations.

Staff contact is Diana Stram.

Source: NPFMC website June 2022 Newsletter: <https://www.npfmc.org/salmon-reports/>



Climate Change, Salmon, and Fishing Communities



NOAA
FISHERIES



**Yukon River Drainage
Fisheries Association**



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The Alaska Fisheries Science Center's Alaska Climate Integrated Modeling (ACLIM) project brings together scientists from multiple fields. We are trying to understand how climate variability impacts the Northern Bering Sea region and the people who live there. Salmon, and the communities who rely on salmon, are important parts of this work.

As part of this research, AFSC researchers are traveling to the lower Yukon with staff from the Yukon River Drainage Fisheries Association to talk with people about the effects of climate change on fishing communities in the area. This work is designed to highlight the voices of community members and to allow the people who are directly affected by environmental change the opportunity to share their experiences and observations. Including Traditional Knowledge and Local Knowledge learned through these discussions will help us gain a more complete understanding of how the ecosystem has changed over time. Learning more about climate change and its effects on communities can help us forecast future climate change impacts.

We look forward to visiting your communities to talk with you, answer questions about our research, and listen to community members!

Our group includes Dr. Sarah Wise, an anthropologist studying how Alaskan communities are responding to climate driven changes. Dr. Ellen Yasumiishi is a research fishery biologist studying climate impacts on fish. Dr. Ed Farley is a supervisory resource manager focused on marine ecosystem research. Jean Lee (Pacific States Marine Fisheries Commission-PacStates) has worked with Bristol Bay communities to co-create video and web media about salmon and communities. Jessica Reynolds (PacStates) has worked collaboratively with communities in the U.S. and internationally on fisheries management approaches. Serena Fitka is the executive director of the Yukon River Drainage Fisheries Association (YRDFA). Catherine Moncrieff is an anthropologist with YRDFA.





Yukon River Salmon Donations from the State

RACHEL BAKER, ADFG

To alleviate some of the food insecurity caused by poor subsistence harvests following historic low returns of salmon to the Yukon River in 2021, with direction from the Office of the Governor and the Commissioner, ADF&G in partnership with private fish processors, transportation companies and Native community tribal councils, formed the Yukon River Salmon Food Security Project. The funding for this project was made possible through the Coronavirus State and Local Fiscal Recover Funds (CSLFRF). The State, along with several partners, coordinated salmon purchases and distributions to communities that were unable to subsistence harvest the salmon they depend on. Over 45,000 pounds of salmon were supplied to communities along the Yukon River, with 36,542 pounds of salmon purchased by the state and an additional 8,874 pounds provided by private donations. Some of this salmon was also delivered to Scammon Bay, Hooper Bay, and Chevak.

ADF&G staff collaborated with the Governor's Office, Tanana Chiefs Conference (TCC), Association of Village Council Presidents (AVCP), and Kwik'Pak Fisheries on this project to distribute salmon from Fairbanks and Emmonak. These two locations served as the distribution hub for the upper and lower Yukon River communities. ADF&G was not involved in the selection process to determine which communities would receive fish from this program. That decision was made by tribal councils in collaboration with TCC and AVCP.

The Commissioner and Governor's Office deemed it critical to extend this program in 2022 for continued food relief to these communities suffering from limited subsistence harvest opportunities. A plan was formed at the end of the first year of this program to purchase from the remaining supply of 2021 salmon, to be able to provide food relief earlier in the season than 2022 harvests would be available. Limited quantities of remaining 2021 harvested salmon forced us to use a mix of gutted and headed and filets, and from chum salmon that were harvested in the Kotzebue and Prince William Sound areas. Just under 13,000 pounds of salmon were purchased from Copper River Seafoods for this first shipment, with roughly half going to each of our distribution locations in Fairbanks and Emmonak.

Our goal for this program is to provide an additional 45,000 pounds of salmon this year to be distributed to these communities in need. We will focus on Chinook, chum and coho salmon for distribution to closely match the fish that would typically be harvested in this region. Efforts will be made to acquire salmon that are of similar meat quality and fat content of the salmon that would be making the long migration up the Yukon River. However, many salmon stocks have experienced reductions throughout the state, which limits our available options for purchase from processors.

Everyone involved understands that this program is no substitute for subsistence harvest and is not meant to replace the opportunity to catch salmon directly from the river. It is with the deepest regret that we find this program to be necessary because these communities are not able to harvest the salmon in traditional ways as they have done for many generations. With all the concerns around low salmon returns there is one positive aspect of this program. The overwhelming desire expressed by all partners involved to help our fellow Alaskans in time of need. We will continue working with our partners throughout the State to keep providing food relief to these communities while Federal, State, and Tribal leaders work to solve the problem and restore salmon to harvestable levels.

Ocean Conservancy Welcomes Reinstatement of Northern Bering Sea Climate Resilience Area

JANUARY 22, 2021 Washington, D.C. – *The following statement was issued by Ocean Conservancy's CEO Janis Searles Jones (@InVeritas_Jones) in reaction to President Biden's "Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis" issued on January 20, 2021:*

Starting on Day 1, the Biden-Harris administration has delivered for our ocean, climate resilience and Alaska Native communities by reinstating Executive Order 13754 that established the Northern Bering Sea Climate Resilience Area.

President Biden's action honors the work led by Kawerak Inc., the Association of Village Council Presidents and the Bering Sea Elders Group advocating for more than 70 federally recognized tribes in the region. They rallied for the original designation in 2016 and then fought to have it reinstated when it was rescinded by the previous administration.

This action provides a pathway for tribes to have a meaningful role in management of the Bering Strait and the Northern Bering Sea, an area that they have stewarded for millennia. It recognizes the importance of and threats to one of the most environmentally and culturally significant places on our planet.

The Executive Order emphasizes the importance of incorporating Indigenous knowledge in decision-making and establishes policy guidelines to address pollution from shipping, bottom trawling, oil and mineral extraction, marine debris and oil spill preparedness. These measures cannot come soon enough in a region that is warming three times faster than the rest of the planet.

The Northern Bering Sea and Bering Strait comprise one of the most historically, environmentally, and culturally significant places on our planet. It is home to Indigenous communities and vibrant local economies that are intrinsically tied to the Arctic ecosystem. It also sustains one of the largest marine migrations on the planet. Bowhead and beluga whales, walrus, seals and over 12 million birds from all over the world pass through the waters of the Bering Strait every summer.

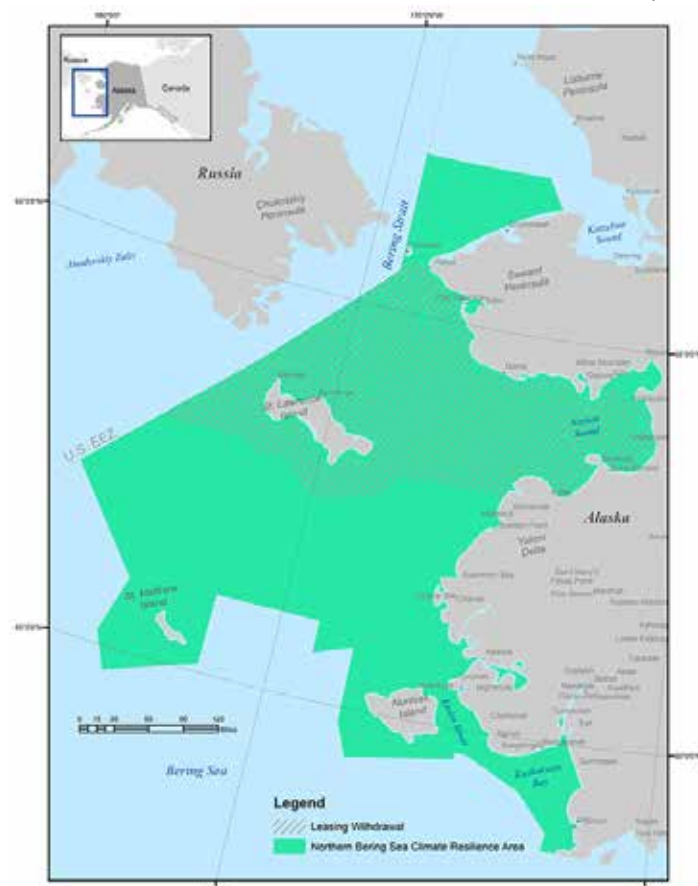
Ocean Conservancy joins the tribes of the Bering Sea in celebrating the reinstatement of the Northern Bering Sea Climate Resilience Area and reaffirms our commitment to supporting sustainable management decisions and tribal sovereignty in the region. We hope this

model can be improved and expanded to provide for greater Indigenous management in this region and other marine areas. "

Ocean Conservancy experts are available for comment upon request.

NOTES TO EDITOR

- Bering Sea Elders Group, Kawerak, Inc., Association of Village Council Presidents and Aleut Community of St. Paul Island issued this statement welcoming President Biden's Day 1 executive actions.
- President Trump's Executive Order 13795 "Implementing an America First Offshore Energy Strategy" revoked the Bering Sea Climate Resilience Area in May 2017.



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Yukon River Drainage Fisheries Association Board of Director Seats

Coastal, Seat 1
Y-1, Seat 1
Y-1, Seat 2
Y-1, Seat 3
Y-2, Seat 1
Y-2, Seat 2
Y-2, Seat 3
Y-3, Seat 1
Y-4, Seat 1
Y-4, Seat 2
Y-5, Seat 1
Y-5, Seat 2
Y-6, Seat 1
Y-6, Seat 2
Koyukuk River
Flats, Seat 1
Canadian Seat 1

Lester Wilde
Stanley Pete
Allen Hansen
Paul Andrews
Bill Alstrom
Mike Peters
Stanislaus Sheppard
Alfred Demientieff Jr.
Fred Huntington Sr.
Richard Burnham
Charlie Wright
Stan Zuray
Dorothy Shockley
Victor Lord
Pollock Simon Sr.
Jan Woodruff
James Macdonald

Hooper Bay
Nunam Iqua
Alakanuk
Emmonak
St. Mary's
Marshall
Mt. Village
Holy Cross
Galena
Kaltag
Tanana
Tanana
Manley Hot Springs
Nenana
Allakaket
Eagle
Whitehorse, YT

Yukon River Drainage Fisheries Association Alternate Seats

FISHING DISTRICT	NAME	COMMUNITY
Coastal Alt. 1	Richard Tuluk	Chevak
Coastal Alt. 2	Vacant	-
Y-1 Alt. 1	Marvin Okitkun	Kotlik
Y-1 Alt. 2	John Strongheart	Alakanuk
Y-2 Alt. 1	Rex Nick	Pilot Station
Y-2 Alt. 2	William Riley Jr.	Pitka's Point
Y-3 Alt. 1	Basil Larson	Russian Mission
Y-4 Alt. 1	Dick Evans	Galena
Y-4 Alt. 2	Robert Walker	Anvik
Y-5 Alt. 1	James Roberts	Tanana
Y-6 Alt. 1	Phillip Titus	Minto
Y-6 Alt. 2	Kathleen Dimientieff	Nenana
Koyukuk Alt. 1	Darrel Vent Sr.	Huslia
Flats Alt. 1	Rochelle Adams	Fort Yukon/Beaver
Canadian Alternate 1	Carl Sidney	Telin, YT

Young Fishers

FISHING DISTRICT	NAME	COMMUNITY
Young Fisher Seat 1	Katlyn Zuray	Tanana
Young Fisher Seat 2	Kerri Kelly	Pilot Station



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BOARD OF DIRECTORS

DISTRICT	NAME	COMMUNITY
Coastal, Seat 1	Lester Wilde	Hooper Bay
Y-1, Seat 1	Stanley Pete	Nunam Iqua
Y-1, Seat 2	Allen Hansen	Alakanuk
Y-1, Seat 3	Camille Augline	Alakanuk
Y-2, Seat 1	Bill Alstrom	St. Marys
Y-2, Seat 2	Mike Peters	Marshall
Y-2, Seat 3	Michelle Peterson	Mtn. Village
Y-3, Seat 1	Alfred Demientieff Jr.	Holy Cross
Y-4, Seat 1	Fred Huntington, Sr.	Galena
Y-4, Seat 2	Richard Burnham	Kaltag
Y-5, Seat 1	Charlie Wright	Rampart
Y-5, Seat 2	Stan Zuray	Tanana
Y-6, Seat 1	Tim McManus	Nenana
Y-6, Seat 2	Victor Lord	Nenana
Koyukuk River	Pollock Simon, Sr.	Allakaket
Flats, Seat 1	Jan Woodruff	Eagle
Canadian, Seat 1	James MacDonald	Whitehorse

YOUNG FISHERS REPS

DISTRICT	NAME	COMMUNITY
Lower River	Kerri Kelly	Pilot Station
Upper River	Katlyn Zuray	Fairbanks

ALTERNATES

DISTR./SEAT #	REPRESENTATIVE	COMMUNITY
Coastal, Alt. 1	Richard Tuluk	Chevak
Coastal, Alt. 2	Clifford Kaganak	Scammon Bay
Y-1, Alt 1	Paul Andrews	Emmonak
Y-1, Alt. 2	VACANT	
Y-2, Alt. 1	VACANT	
Y-2, Alt. 2	VACANT	
Y-3, Alt. 1	Basil Larson	Russian Mission
Y-4, Alt. 1	Dick Evans	Galena
Y-4, Alt. 2	Robert Walker	Anvik
Y5, Alt. 1	James Roberts	Tanana
Y-6, Alt. 1	Candace Charlie	Minto
Y-6, Alt. 2	Dorothy Shockley	Manley Hot Springs
Koyukuk River	William Derendoff	Huslia
Flats, Alt. 1	Rochelle Adams	Beaver

Yes!

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