



YUKON-KUSKOKWIM DELTA
SUBSISTENCE REGIONAL
ADVISORY COUNCIL
Meeting Materials - Book 1

*October 27-28, 2022
Bethel*



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A string of salmon called kairneq (jerky) hang in the smokehouse, curing into food that will last the rest of the year.



USFWS Photo

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YUKON KUSKOKWIM DELTA SUBSISTENCE REGIONAL ADVISORY COUNCIL

Yupiit Piciryarait Cultural Center

Bethel, AK

October 27-28, 2022

9:00AM-5:00PM

TELECONFERENCE: call the toll-free number: 1-866-326-9183, then when prompted enter the passcode: 48576438

PUBLIC COMMENTS: Public comments are welcome for each agenda item and for regional concerns not included on the agenda. The Council appreciates hearing your concerns and knowledge. Please fill out a comment form to be recognized by the Council chair. Time limits may be set to provide opportunity for all to testify and keep the meeting on schedule.

PLEASE NOTE: These are estimated times and the agenda is subject to change. Contact staff for the current schedule. Evening sessions are at the call of the chair.

AGENDA

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To call into the meeting, dial the toll free number: 1-866-326-9183, then when prompted enter the passcode: 48576438

Reasonable Accommodations

The Federal Subsistence Board is committed to providing access to this meeting for all participants. Please direct all requests for sign language interpreting services, closed captioning, or other accommodation needs to Brooke McDavid, 907-891-9181, brooke_mcdavid@fws.gov, or 800-877-8339 (TTY), by close of business on October 20, 2022.

REGION 5
Yukon-Kuskokwim Delta Regional Advisory Council

Seat	Yr Apptd Term Expires	Member Name & Address	Represents
1	2021 2022	Henry Parks <i>Nunapitchuk</i>	Subsistence
2	2021 2022	Norma T. Evan <i>Marshall</i>	Subsistence
3	2006 2022	John W. Andrew <i>Kwethluk</i>	Subsistence
4	2020 2022	Thomas G. Alstrom <i>Alakanuk</i>	Commercial/Sport
5	2021 2023	Jacqueline K. Cleveland <i>Quinhagak</i>	Subsistence
6	2018 2023	James C. Landlord <i>Mountain Village</i>	Subsistence
7	2017 2023	Alissa Nadine Rogers <i>Bethel</i>	Subsistence
8	2021 2023	Phillip K. Peter, Sr. <i>Akiachak</i>	Subsistence
9	2021 2023	Wassilly B. Alexie <i>Russian Mission</i>	Subsistence
10	2001 2024	Raymond J. Oney <i>Alakanuk</i>	Chair Subsistence
11	2021 2024	Myron P. Naneng, Sr. <i>Bethel</i>	Vice Chair Subsistence
12	2021 2024	Robert J. Hoffman <i>Bethel</i>	Subsistence
13	2018 2024	Richard B. Slats <i>Chevak</i>	Secretary Subsistence

**YUKON-KUSKOKWIM DELTA
SUBSISTENCE REGIONAL ADVISORY COUNCIL**

Meeting Minutes

Via Teleconference

March 1-3, 2022

Invocation

James Landlord gave an invocation.

Call to Order, Roll Call and Quorum Establishment

The meeting was called to order Tuesday, March 1, at 9:12am. Council members Raymond Oney, Wassilly Alexie, Thomas Alstrom, John Andrew, Jackie Cleveland, Norma Evan, Robert Hoffman, James Landlord, Henry Parks, Phillip Peter, Sr., and Alissa Rogers were present by teleconference. Myron Naneng and Richard Slats were not present and were excused. A quorum was established with eleven of thirteen seated Council members present or participating by phone.

Attendees:

Via teleconference

Office of Subsistence Management, Anchorage: Eva Patton, Pippa Kenner, Cory Graham, Tom Plank, Lisa Grediagin, Robbin La Vine, Orville Lind, and Dr. Jason Roberts

U.S. Fish and Wildlife Service

- Yukon Delta National Wildlife Refuge, Bethel: Boyd Blihovde, Spencer Rearden, Aaron Webber, Chris Tulik, Aaron Moses, and Emmitt Nicori
- Togiak National Wildlife Refuge, Dillingham: Andy Aderman
- Anchorage: Jill Klein, Holly Carroll, Keith Ivy, and Robert Kaler
- Fairbanks: Gerald Maschmann
- Kenai Fish and Wildlife Conservation Office: Frank Harris

Bureau of Land Management, Anchorage: Bruce Seppi, and Chris McKee

Bureau of Indian Affairs, Anchorage: Pat Petrivelli

National Park Service, Anchorage: Dr. Kim Jochum, Victoria Florey, and Dillon Patterson

U.S. Forest Service, Anchorage: Greg Risdahl

Alaska Department of Fish and Game:

- Division of Wildlife Conservation - Bethel: Patrick Jones; Palmer: Mark Burch; Dillingham: Todd Rinaldi and John Lancefield
- Commercial Fisheries Division - Anchorage: Nick Smith and Shane Ransbury; Fairbanks: Deena Jallen, Christy Gleason, and Sam Decker
- Subsistence Division, Chris McDevitt, Fairbanks

National Oceanic and Atmospheric Administration (NOAA) Fisheries, Juneau: Elizabeth Siddon, and Jim Murphy

North Pacific Fishery Management Council (NPFMC): Dr. Diana Stram, and Kate Haapala

Tribal Organizations:

- Association of Village Council Presidents, Bethel: Jennifer Hooper and Paige Jones
- Native Village of Alakanuk: Gabriel Buster
- Native Village of Napaimute: Dan Gillikin
- Orutsararmiut Native Council, Bethel: Gisela Chapa, Danielle Lowry
- Kwethluk Incorporated, Kwethluk: Anthony Olick
- Kuskokwim River Intertribal Fish Commission: Mary Peltola and Terese Schomogyi, Bethel; Kevin Whitworth, McGrath
- Mountain Village Tribe, Natural Resources: Stan Sheppard
- Native Village of Chevak, Tribal Administrator

Other Organizations:

- Yupik Interpretation Services, Bethel: Pat Samson and Sophie Evan
- Yukon River Drainage Fisheries Association: Serena Fitka and Catherine Moncrieff

Public:

- Evon Waska, Bethel
- John Lamont, Emmonak
- Bill Olstrom, St. Mary's
- Nick from Kwethluk

Review and Adopt Agenda

Motion by Ms. Rogers, seconded by Mr. Andrews, to adopt the agenda as read with the following changes:

- Under old business add: Mulchatna Caribou Herd status update, review and finalization of Council's draft letters, and nominations for alternate YKDRAC seat on the Kuskokwim Salmon Management Working Group
- Under new business add: Fisheries Special Action request FSA22-01/02/03, and move up the fisheries management pre-season agency reports
- Under agency reports add: two NOAA and two NPFMC reports

The motion passed unanimously.

Election of Officers

Due to delay in Secretarial Appointments, Officers were nominated during the fall 2021 meeting and will remain as elected for the full year of 2022:

- Mr. Raymond Oney was elected the Council's Chair.
- Mr. Myron Naneng, Sr. was elected the Council's Vice Chair.

- Mr. Richard Slats was elected the Council's Secretary.

Review and Approve Previous Meeting Minutes

Motion by Mr. Phillip, seconded by Mr. Andrews, to approve the fall 2021 meeting minutes as presented.

The motion passed on a unanimous vote.

Council Member and Chair Reports

Henry Parks of Nunapitchuk reported that since the previous meeting they had a wet fall season and the water levels were very high in his area. They did not catch much whitefish due to the wet and windy weather. Their fish racks were empty since they were not able to catch any whitefish in the fall. But, later in the winter after freeze-up, they were able to set under ice nets and catch lots of pikes and lush fish and a little bit of whitefish. When the winter trail got safe enough to travel, Mr. Parks went out to set blackfish traps, beaver traps, and otter traps. He caught a lot of blackfish and a few beavers. Mr. Parks reported that some hunters from his community were able to get some moose. This is good because it has been a very difficult year for the community due to COVID.

Mr. Parks explained that it has also been a very difficult year because of the complete closure to subsistence fishing on the Yukon River. Even though they were able to fish a little bit on the Kuskokwim River, the Chum Salmon were low in abundance, and community members caught only a few. Subsistence communities are suffering for the lack of salmon, which is their primary food. Mr. Parks is very concerned about the low salmon returns and stressed that everyone needs to conserve the salmon, including the commercial fisheries in the Bering Sea and Area M. Action needs to be taken now so the salmon do not continue to decline in the future.

Norma Evan of Marshall reported that this fall under the ice setnet fishing was very slow at first. Ms. Evan said they usually catch whitefish through the winter until the ice breaks up in the spring. She said the pike have been plentiful. Sheefish are starting to show up now, and people with setnets on the river in front of Marshall have been catching a few each day. A wolf chased a moose right through town the other day. Ms. Evan has seen more predators around and knows that trapping has reduced by about 40% locally. She sees few rabbit tracks in her area. Ms. Evan reported that their stores have been empty for over a month, but families were well prepared with moose harvested this fall. The community had no salmon. They have to sacrifice fishing to reach escapement goals and ensure the future of the salmon.

John Andrew of Kwethluk reported that last summer the fishing was both good and bad: there were a lot of Sockeye Salmon, but the Chinook Salmon were low, and Chum Salmon were practically non-existent. John reported that he caught only about seven Chum Salmon in the summer and then incidentally caught a few more later in the season in his whitefish nets. The Chinook Salmon run came in as a lot of small jacks. He said that last summer was rainy and people had a hard time drying fish. Many people are already running out of dried fish, and Mr. Andrew is sharing some of his fish with his relatives and

sending others to Chevak and Scammon Bay. His friends are doing the same: sharing with others that need fish. He said he has at least heard that the pike fishing is good now and ptarmigan are starting to show up. The first part of the fall, moose hunt was slow. People hardly saw any because the weather was too warm. Mr. Andrew noted that they are hardly seeing any rabbits around their area anymore and he has not heard of arctic hares being around anywhere.

Thomas Alstrom of Alakanuk reported that the fall came late and then the winter was cold with below-zero temperatures. They did not have good snow until January. Mr. Alstrom reported that he goes out and packs snow to melt for drinking water because it tastes better than the water they get from the faucet. The cold winter was brief without much snow. A warm spell came in February, and spring came early this year. The snow melted and the roads and river were just glare ice. He has a small 3.5-inch mesh net under the ice on the Alakanuk Slough and is catching some cisco, whitefish, small sheefish, and pike. However, he is not catching as many cisco and small whitefish as he used to; he used to catch 20 at a time and now hardly catches any. He has at least heard reports that people are starting to catch some sheefish now, and people can travel upriver to harvest pike around Mountain Village where they are plentiful. Mr. Alstrom stressed that they were not able to fish for salmon on the Yukon at all this year and there needs to be restrictions on the Bering Sea pollock fishery to reduce the salmon bycatch.

He also reported that there are a lot of moose around Alakanuk and they are even bedding down near people's houses. They have to be careful when they go out to watch for moose. He got charged by a young bull, but was able to run back into the house.

Jacqueline Cleveland of Quinhagak shared that she grew up in Quinhagak and has subsistence hunted and fished there her whole life. She is interested in documentary film making, has worked for her Tribe, and is now working as a Refuge Information Technician for the Togiak National Wildlife Refuge. Ms. Cleveland reported that Quinhagak had an okay fishing season in 2021 and met most of its subsistence fishing goals. Escapement goals were also met on the Kanektok River. However, the King Salmon seemed low and there were almost no Chum Salmon. Sockeye Salmon were very plentiful. There was commercial fishing in District 4: 74 permit holders had a total catch of approximately 2,500 Chinook, 78,000 Sockeye, 13,000 Coho, and 5,000 Chum salmon. The Tribal Council is concerned about so many nets out in the Kuskokwim Bay and about how inaccurate subsistence harvest counts might affect escapement. The Tribal Council is also concerned about sport fishing activity on the Kanektok River and the excessive motorboat traffic that is further eroding the riverbanks. These people also pollute the river, leaving things like batteries and refrigerators to wash into it. Pollution not only affects the fish and their habitat, but also the source of drinking water for the community. The pike population continues to grow, and Ms. Cleveland is concerned that pike might take over other species such as trout and char. People report seeing a lot more pike and less trout and char in the rivers around Quinhagak.

This winter Quinhagak had a winter moose hunt opportunity from December 1 to 15th, but during more than half of that time there were bad storms and people had difficulty accessing trails to get into the mountains to hunt. The fall hunt was similar in that bad weather prevented successful harvests. Only about ten moose were harvested between the fall and winter hunts combined.

James Landlord of Mountain Village reported that as soon as the Yukon River froze and the ice was thick enough, people were setting nets right in front of Mountain Village. When the ice gets thick enough to cross the river, people go over and set blackfish traps. Mr. Landlord travelled five miles upriver to set his nets where no one else was fishing and caught three Humpback Whitefish. He noted he had not caught Humpback Whitefish in some time. He ate one and gave the others to his Aunties. Mr. Landlord highlighted that he set three nets under the ice and caught a lot of sheefish – about 20 or 25 combined from his nets. Some of them were quite large like the size of King Salmon. He also caught some large pike and a few lush (Burbot). Additionally, he was surprised to catch ten Coho Salmon. But the Coho Salmon were all black with big teeth and mushy like they were spawned out. He took his nets out after a few weeks because the weather was cold and the ice was getting quite thick. The winter was cold this year with a constant wind from the North. They had a lot of snow in the area initially, but then the weather warmed up and it rained for nearly three days straight. This melted the snow, and it was just sheer ice everywhere. Erosion has been a problem on the river banks around Mountain Village, especially this past fall when they had strong south-southwest winds blowing into the shore. It even caused the gravel beach to erode. Mr. Landlord noted the river has changed since the time he was growing up. There used to be a big eddy right below the village where everyone would fish during both summer and winter, but now there is hardly even a little eddy because of all the erosion.

Alissa Nadine Rogers of Bethel shared that she started attending RAC meetings with her grandfather, the late John Hansen, when she was nine years old and is dedicated to advocating for subsistence way of life. Ms. Rogers reported that this past fall the Kuskokwim whitefish were really nice and fat which makes for good baking fish. She prefers to eat whitefish frozen raw, but her kids like them baked. There were lots of nice size pike on the Kuskokwim River too, and they were easy to catch. Ms. Rogers did hear some reports from others of deformed pike that did not look healthy. For example, some people said that they had gotten fish that were mushy, looked like their intestines were dissolving, and had livers that looked like they were full of rice. There was a lot of lush (Burbot) fish this winter and they were nice and big too.

Ms. Rogers reported that they did not go out to hunt much for ptarmigans this year, although she did catch the end of the migration and saw two big flocks. She and her family got enough to make dinner and some dry meat, which her kids really love to eat. She had a moose in her back yard this year, but most people are having to travel towards the Yukon River to catch their moose. She has heard reports that there are a lot more big, healthy wolves around this year. She has also heard there are more signs of wolverine, mink, and fox around, but fewer rabbits. She has not caught any rabbits this year but saw sign of jackrabbits out by the bluffs below Bethel.

Ms. Rogers expressed concern about the Mulchatna Caribou Herd decline. It is a subsistence resource that many communities rely upon. In recent years with Chinook and Chum salmon conservation measures, many families don't even have fish for the winter. The caribou closure has been especially difficult for those who are not able to make the long trip all the way to the Yukon River to get a moose. She is hopeful there might be a way for Tribes to organize around designated hunter permits to harvest the

abundant moose on the lower Yukon River and ship meat to the communities in need on the Kuskokwim. These have been very difficult years for subsistence families. The lack of salmon and caribou closures have made it difficult to harvest enough food. And then, because of COVID it has been difficult for communities to get food freight to villages. Ms. Rogers is also very concerned about impacts the Donlin Mine may have on fish and other subsistence resources, especially with the proposed chemicals that will be used in the gold processing.

Phillip Peter Sr. of Akiachak reported that he is an elder now and does not go out very far hunting like he used to when he was a young man. He recalled travelling all summer, fall, and winter to hunt and trap. Now he is very involved in subsistence meetings. Just the other day he met with Kuskokwim River villages in support of special actions for Federal Management of salmon on the Kuskokwim River. Phillip is very concerned about nets being confiscated when there are setnet openings. People are getting cited for nets not being the right length and depth, and if Chinook Salmon happen to be caught, they are released by the troopers. He feels this is not right because they are subsistence fishing and providing for their families. They have been following the law not fishing when it is closed. The fishing nets are essential to subsistence and no one can afford to replace them. There is too much confusion about what nets size and length can be used and where. Mr. Peter stressed that it really caused a lot of confusion, stress, and hardship on local people when ADF&G opened the fishery when it was closed by the Federal manager. He stressed that this should never happen again. He said that management decisions should be clear and straightforward so that everyone knows when and how fishing can occur along the whole Kuskokwim River, from the Johnson River up to Aniak. It is important to avoid confusion; this just caused even more duress for subsistence fishers in already difficult times.

Mr. Peter reported that the local communities of Akiachak, Akiak, Tuluksak, and Kwethluk are very concerned about the Mulchatna Caribou Herd decline and there is a need for more education about the conservation of the caribou. The communities are interested in seeing a working group formed to address caribou management and pursue a hunting moratorium in order to help the caribou herd recover. He also stressed that for all these subsistence issues it is important to work together with one mind, to not be divided, and to follow the subsistence laws of the elders. He stated that together we are a powerful people.

Robert Hoffman of Bethel expressed his appreciation for the comments just made by Phillip Peter, Sr. and he fully agrees with speaking this truth. Mr. Hoffman introduced himself as a new Council Member and a lifelong subsistence hunter and fisherman dedicated to subsistence in the region. He serves on the Orutsararmiut Native Council, Bethel Native Cooperation, and the Association of Village Council Presidents. He reported that they have abundant moose in the region now thanks to the moose moratorium, and he thanked all the people that worked together to accomplish that mission. He recalled as a young boy there were no moose and they had to travel all the way upriver to Stoney River to find them. Now, they can just go to fish camp and harvest a moose. He is very pleased about what a hunting moratorium can accomplish. Now, the most important issue is fish. They used to have abundant salmon, so much that they even had a commercial fishery in which he used to be involved. But now with the low returns of Chinook and Chum salmon, they barely have enough frozen or dry fish to subsist on through

the winter. Salmon is their primary food and many people don't have jobs to buy food; they fully depend on subsistence. Everyone has to work together to help support the subsistence communities in these times; people need to eat.

Mr. Hoffman has heard that climate change may be causing the Chinook and Chum salmon decline, and he wonders why the Sockeye Salmon are abundant. He reported that this is the first time he recalls such an abundance of Sockeye Salmon on the Kuskokwim River. They used to only catch one or two when he was young. He is thankful Sockeye Salmon were so plentiful so they could harvest them in place of the King and Chum salmon and be happy. Mr. Hoffman is very concerned about high seas fishing and sees the Bering Sea trawl fisheries as responsible for the decline. He feels they should be restricted, too, if subsistence fishers cannot harvest Chinook and Chum salmon. He is also concerned about Donlin Mine impacts to fish and how the chemicals they plan to use could contaminate the river. Mr. Hoffman reported that the rabbits and caribou are in decline too. He thinks fewer people are trapping for furs these days and there are more predators harvesting the rabbits and the caribou.

Wassily Alexie of Russian Mission reported that COVID is still going on in his community. They have a lot of concerns about subsistence fishing, and no one along the entire Yukon River was able to fish for salmon this past summer. He worries about what they will do if they can't fish again this year. Mr. Alexie noted a few families went over to the Kuskokwim River and were fortunate to get a few Chum Salmon, but there were hardly any Chum Salmon on the Yukon River. He recalled over the years how their fishing nets were restricted from 8.5 to 7.5 to 6-inch mesh, and then this past year they could only use 4-inch mesh nets. Mr. Alexie was surprised how many little jack King Salmon they caught and is concerned that so many little, young King Salmon are coming back up the river.

Chair Raymond Oney of Alakanuk thanked all the Council members for their reports and their good work talking with people in their communities, observing of their surroundings, and working to ensure people are meeting their subsistence needs. He encouraged the Council Members to continue to advocate for their people and subsistence way of life. There is always a lot of work to do; it is never done.

Mr. Oney reported that they had a cold freeze-up, but then had a lot of rain later in the winter and very high winds – so much that one time he thought his house would blow away. They are experiencing more frequent and more severe storms with very high winds and often big temperature swings from 10 below to 30 above. These are unusual weather patterns, different than he has ever experienced. It is affecting their subsistence way of life and affecting the animals and their migration, reproduction, and survival. Mr. Oney is certain it will have an effect on everyone in the long run and encouraged people to be vigilant in their observations about these changes and report them in order to advocate on behalf of subsistence. He encouraged the Council Members to talk to their elders and youth about the subsistence way of life and to also talk to the agencies to make sure that the subsistence way of life can continue.

Old Business

Mulchatna Caribou Herd Update and Discussion

Mr. Todd Rinaldi and John Lancefield with ADF&G introduced themselves as managers of the Mulchatna Caribou Herd based in Dillingham. Mr. Rinaldi reported that there was no hunting opportunity this past year and there continues to be none due to the decline in the herd's population. ADF&G plans to continue to monitor the herd to better understand what's causing the decline and will provide the Council with further updates.

Boyd Blihovde and Andy Aderman with USFWS also provided the Council with Mulchatna Caribou Herd monitoring updates and discussed their outreach efforts with local communities about the recent caribou hunting closures.

The Council discussed concerns about the Mulchatna Caribou Herd's dramatic decline and their desire to enact conservation measures that would help the herd rebound. They were particularly interested in a hunting moratorium similar to what had been implemented in the past for moose in this region. The Council discussed the pending Federal subsistence wildlife proposal WP22-41 that will delegate in-season management authority to the Togiak National Wildlife Refuge Manager (in coordination with others). The Council discussed conservation strategies and having a Special Action Request ready if there are any open hunting opportunities on the Mulchatna Caribou Herd prior to the Council's next meeting in the fall.

- Motion by Mr. Alexie, seconded by Mr. Andrew, **to submit a special action request to the Federal Subsistence Board requesting a 5-year hunting moratorium on the Mulchatna Caribou Herd.** The Council feels that a temporary hunting moratorium could help the population of this important subsistence resource rebound.

The motion passed by unanimous vote.

The Council agreed to revisit the special action request later in the meeting after Ms. Rogers and OSM staff were able to prepare more detailed language for consideration. When the topic was revisited, the Council decided to make additions to its recommendation on WP22-41 at the upcoming Federal Subsistence Board meeting instead of submitting a special action request.

- Motion by Ms. Rogers, seconded by Mr. Alexie, **to continue to support WP22-41 and to amend the Council recommendation to include the following management strategies:**
 1. Implement a moratorium on the harvest of Mulchatna Caribou Herd throughout the range of the herd for 5 years or until the population has reached 30,000 to be jointly enforced by U.S. Fish and Wildlife Service and Alaska Department of Fish and Game
 2. Close Federal public lands to harvest of Mulchatna Caribou Herd throughout their migratory range that includes units 9A, 9B, 9C, 17A, 17B, 17C, 18, 19A, and 19B
 3. Maintain the age and sex ratio of the herd to increase productivity. The Council suggests 30 bulls:100 cows but acknowledges a better ratio may be provided by biologists

4. Support liberal subsistence harvests on bears and wolves
5. Improve knowledge of and compliance with harvest reporting requirements
6. Conduct outreach to address user conflict and provide education about hunting regulations

The motion passed on a unanimous vote.

- Motion by Ms. Rogers, seconded by Mr. Hoffman, **to support a draft special action request that includes the above points that were added to the WP22-41 recommendation.** This special action request would only be submitted if hunting for the Mulchatna Caribou Herd was proposed to be opened prior to the next Council meeting.

The motion passed on a unanimous vote.

- Motion by Ms. Evan, seconded by Mr. Hoffman, **to nominate Ms. Rogers to present the above management strategies at the upcoming Statewide Board of Game meeting.**

The motion passed on a unanimous vote.

Council Draft Letters and Proposals

The Council discussed and finalized several draft letters and fisheries proposals that had been previously voted on at the fall meeting. These included:

1. Proposal to the Alaska Board of Fisheries due April 11, 2022, requesting restrictions or closures to the Area M intercept commercial fishery when the Yukon and Kuskokwim River subsistence fisheries were closed
 2. Proposal to the Alaska State Board of Fisheries due April 11, 2022, requesting a genetic testing program be implemented in the Area M commercial fishery to better determine salmon stock of origin caught in this fishery
 3. Council letter to the North Pacific Fisheries Management Council addressing Bering Sea commercial trawl fishery salmon bycatch and Halibut bycatch concerns and highlighting impacts specific to the Yukon-Kuskokwim Delta communities
 4. Joint RAC (Yukon-Kuskokwim Delta, Western Interior, Eastern Interior, and Seward Peninsula Councils) letter to the North Pacific Fisheries Management Council addressing Bering Sea Commercial Trawl fishery salmon bycatch reductions and requesting two Tribal or subsistence seats be added to the Council. Additionally, request the Federal Subsistence Board to elevate these concerns to the Secretary of Interior and Secretary of Commerce.
- Motion by Ms. Rogers, seconded by Mr. Alexie, **to support the Councils joint letter to the North Pacific Fisheries Management Council including the edits/additions recommended by the Western Interior RAC** as follows: set the hard cap for Chum Salmon to no more than

250,000 and request the hard caps requested for Chinook and Chum salmon be instituted immediately.

Motion passed with 10 votes in favor to one against with two absent.

Election of Alternates for the Kuskokwim Salmon Management Working Group

With the recent retirement of Council member Mr. Robert Aloysius, alternates are needed to serve as a voting member on the Kuskokwim Delta Subsistence Regional Advisory Council in the event primary Y-K Delta RAC Working Group representative, John Andrew, is not able to attend a meeting.

- Motion by Ms. Cleveland to nominate Mr. Hoffman of Bethel to serve as an alternate on the Working Group.

The motion passed unanimously.

- Alissa Rogers volunteered to also serve as an alternate on the Working Group.

The motion passed with 10 votes in favor to one against with two absent.

New Business

Fisheries Resource Monitoring Program Update

Mr. Cory Graham, Fisheries Biologist for the Office of Subsistence Management, presented the Council with the Fisheries Resource Monitoring Program (FRMP) update. The FRMP is currently in the final phase of the 2022 Monitoring Program funding cycle. The Federal Subsistence Board met in early February and endorsed the final Monitoring Program funding plan. With this cycle coming to an end, it's time for the Councils to begin developing priority information needs for the 2024 Monitoring Program call for proposals. Mr. Graham asked if any Council Members would like to volunteer to help develop priority information needs for the next call for proposals. Alissa Rogers and Thomas Alstrom agreed to assist in this effort.

Call for Federal Fish and Shellfish Proposals

Mr. Graham informed the Council that the Board will be accepting proposals to change Federal regulations for the subsistence harvest of fish and shellfish on Federal public lands and waters for the 2023-2025 regulatory years for a period of at least 30 days upon the publication of the proposed rule in the Federal Register. The Board will consider proposals to change Federal subsistence fish and shellfish seasons, harvest limits, methods, and means related to taking of fish for subsistence uses, as well as customary and traditional use determinations.

The Council discussed some important subsistence fisheries issues and learned that either they were already in regulation such as use of dip nets as subsistence fishing gear on the Yukon and Kuskokwim Rivers, or that the topics were of importance to include in the Fisheries Resource Monitoring Program Priority Information Needs such as monitoring Kuskokwim Rainbow Smelt populations and identifying critical spawning habitat such as the gravel flats below Kalskag that may be in jeopardy due to increased barge traffic proposed for the Donlin Mine and dredging proposals to accommodate medium/deep draft barges.

Fisheries Closure Review Discussion

Mr. Graham presented to the Council the information the Fisheries Closure Reviews that will come for Council's review and action during the fall 2022 meeting. OSM will be reviewing three closures located in the Western Interior region. These closures are Jim River, Bonanza Creek, and Kanuti River. OSM will also be reviewing two closures in the Eastern Interior region, and these closures include Nome Creek and Delta River. These closures are relevant to your Council because they are located within the Yukon River drainage, and rural residents of the entire drainage could harvest fish in these areas if the closures are rescinded.

Call for Non-rural Determination Proposals

Ms. Pippa Kenner, Anthropologist at the Office of Subsistence Management in Anchorage, informed the Council that the Board will be accepting proposals to change non-rural determinations in Federal regulations. A non-rural determination is the process for formally changing in Federal regulations a community's status from non-rural to rural or from rural to non-rural. This is the second call for proposals for non-rural determinations since 2018. Any valid non-rural determination proposals submitted this year will be acted on by the Board in 2025. The call for non-rural determination proposals occurs every four years at the same time as every other fisheries regulatory cycle.

Review and approve FY-2021 annual report

Motion by Ms. Rogers, seconded by Mr. Alstrom, to approve the Council's FY-2021 Annual Report with the following additions:

- 1) Request for support for Kuskokwim communities to be able to harvest additional moose from the very abundant lower Yukon River moose population to provide for families in need
- 2) Update the North Pacific Fisheries Management bycatch topic to be consistent with the joint RAC letter on this topic that was just approved by the Council
- 3) Add additional detail on the hardship caused by low Chum Salmon returns and highlight the lack of subsistence fishing opportunity
- 4) Update the Mulchatna Caribou herd topic to include the request for a five-year moratorium discussed earlier in the meeting.

Federal Subsistence Board Annual Report Reply Process Review and Revision Discussion and Council comments and feedback

Ms. Robbin La Vine, Policy Coordinator for the Office of Subsistence Management, provided an overview and facilitated discussion on Annual Report Reply process. The Council discussed the review of the process and glad to see the process is being considered. The Council is aware that responses to the Annual Report can take time and letters to the Federal Subsistence Board may allow for more targeted discussion of urgent issues and may get a quicker response.

Receiving Public Testimony Protocol – Guided Discussion

Ms. La Vine led the Council in a guided discussion about their preferences for receiving written and oral public testimony at Council meetings. In the Council's opinion, the best ways to encourage public feedback to the Councils is through outreach to local organizations, Tribes, and local Village Corporations. These groups often have representatives attending the RAC meetings and can help build awareness in each their own communities and across the region. It is always more effective and powerful to have opportunity for in person participation – it would be best to go back to in-person meetings as there are so many more opportunities for the Council and public and agencies to connect. The reality is that most in the region have limited internet and spotty phone reception, but all avenues for participation should be open. It is helpful to send draft agendas to the Tribes and organizations three months in advance so they can prepare or add topics to the Tribal Council meeting agendas so they have time to make an official recommendation. Local radio stations such as KYUK and KNOM and local newspapers such as Delta Discovery are great ways to get information out the public.

The Councils discussed public comments and prefers that they be read into the record in full verbatim if possible to keep the full language and intent. In-person testimony makes a bigger difference than written comments or letters. It allows a person to speak their heart, speak in their own language, and convey issues at depth that is hard to do in a written statement. The Council stressed the need to think of the Elders who do not use internet or may not speak or write in English.

Briefing and Council comments on proposed actions to automate Federal subsistence permits

Ms. La Vine briefed the Council on proposed actions to automate Federal subsistence permits. The Council recommended utilizing Refuge Information Technicians to issue permits and gather information. It may sound great to automate everything, but it needs to be accessible and it needs to actually work for rural Alaska.

Briefing on the Secretarial regulations proposing the inclusion of identified submerged lands in the Tongass National Forest.

Ms. La Vine provided the Council with an update on this issue. It directly applies only to the Southeast Alaska region.

Fisheries Special Action Request FSA22-01/02/03

Ms. Pippa Kenner, Anthropologist for OSM, provided the Council with an overview of Fisheries Special Action Request FSA22-01/2/3 which requests that the Federal Subsistence Board close the Yukon River drainage to the harvest of Chinook and summer and fall Chum Salmon except by Federally qualified subsistence users and to further reduce the pool of eligible Federally qualified subsistence users based on an ANILCA Section 804 analysis.

- Motion by Ms. Rogers, seconded by Mr. Phillips, Sr. **to Support FSA22-01, 02, and 03 with modification** to allow the area of the Black River drainage (situated south of the mouth of the Yukon River) to remain open to the harvest of Chinook and summer and fall Chum salmon by non-Federally qualified users. The Council discussed that the Yukon River has been experiencing low Chinook Salmon runs for the last twenty years and now the Chum Salmon runs have declined at an alarming rate. The Council supports continuing conservation efforts to help the Chinook and Chum salmon stocks rebound. Everyone needs to be at the table to help conserve these fish.

The Council stressed that people can't just keep fishing until the salmon are fished out. However, subsistence communities have been suffering for the lack of salmon so if there were enough salmon to allow some harvest, then the Federally qualified subsistence users would have priority under Federal management. This special action request is just for the 2022 fishing season, which would allow opportunity to evaluate the effects.

The Council is concerned that the coastal communities of Chevak, Scammon Bay, and Hooper Bay do not currently have a customary and traditional use determination for Yukon River Chinook and Summer Chum salmon. The Council understands that the Office of Subsistence Management will assist these communities in submitting a proposal to address this. In the meantime, for 2022 under this Special Action request, the Council requests that the Black River area be omitted from Federal management so that these communities would not be excluded from this traditional salmon harvest area if there were to be a salmon fishing opportunity under Federal management.

Motion passed on a vote of 11 yes, 0 no, 2 absent.

The Council took action on these special action requests before FSA22-04 was received.

Agency Reports:

- *Orutsararmiut Native Council and Partners for Fisheries Monitoring Program* report presented by ONC Natural Resources Director, Gisela Chapa and Partners Program Biologist, Danielle Lowrey

- *Native Village of Napaimute and Partners for Fisheries Monitoring Program* report presented by NVN fisheries biologist Dan Gillikin
- *Yukon Fall Chum* report presented by Deena Jallen and Christy Gleason, ADF&G Yukon Fisheries Biologists and Inseason managers
- *2022 Yukon River Preseason Salmon Management* report presented by Holly Carroll, USFWS Yukon Federal Inseason Manager
- *Association of Village Council Presidents* update, presented by Jennifer Hooper
- *Kuskokwim River Inter-Tribal Fish Commission* update presented by Mary Peltola
- *Yukon River Drainage Fisheries Association* update presented by Serena Fitka
- *2022 Kuskokwim River Preseason Salmon Management* presentation presented by Boyd Blihovde, Yukon Delta National Wildlife Refuge Manager
- *Yukon Delta National Wildlife Refuge* report presented by Refuge Manager Boyd Blihovde, Subsistence Biologist Aaron Moses, and Refuge Information Technician Chris Tulik
- *Togiak National Wildlife Refuge* report presented by Togiak NWR Wildlife Biologist, Andy Aderman
- *Bureau of Land Management* report provided by BLM Anchorage Field Office Biologist, Bruce Seppi
- *Mulchatna Caribou Herd* report provided by ADF&G
- *Eastern Bering Sea Ecosystem* report presented by Dr. Elizabeth Siddon, NOAA Fisheries
- *Northern Bering Sea Juvenile Salmon* report presented by Dr. Jim Murphy, NOAA Fisheries
- *North Pacific Fisheries Management Council Bering Sea Bycatch* report presented by Dr. Diana Stram, Sr. Scientist
- *North Pacific Fisheries Management Council Local and Traditional Knowledge and Subsistence Taskforce* report by Dr. Kate Haapala
- *Alaska Seabird Update* presented by Robb Kaler, Biologist, USFWS Migratory Bird Management program
- *Office of Subsistence Management* report presented by Robbin LaVine, OSM Policy Coordinator

Council Requests:

The Council discussed the hardship and costs incurred participating in RAC meetings by teleconference and requested a letter be submitted to the Federal Subsistence Board requesting reimbursement for cell phone minutes and digital data expenses incurred while participating in two- to three-day meetings by teleconference and downloading of large files for those that have computer internet access. The Council members take time away from the family, subsistence activities and paid work to participate in meetings and recently have been paying for cell phone minutes to participate in meetings by teleconference.

- Motion by Ms. Rogers, seconded by Mr. Andrew, to submit this request in a letter to the Federal Subsistence Board.

Motion passed unanimously.

Future Meeting Dates:

The Council selected October 27-28, in Bethel for the fall 2022 meeting dates.

The Council selected April 3-4, in Alakanuk for the winter 2023 in meeting dates.

Brooke McDavid, Subsistence Council Coordinator, for Eva Patton, Designated Federal Officer
USFWS Office of Subsistence Management

Raymond Oney, Chair
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council

These minutes will be formally considered by the Yukon-Kuskokwim Delta Subsistence Regional Advisory Council at its fall 2022 meeting, and any corrections or notations will be incorporated in the minutes at that meeting. A more detailed report of this meeting, copies of the transcript, and meeting handouts are available upon request. Call Brooke McDavid, Subsistence Council Coordinator, at 1-800-478-1456 or 907-388-9205, or email her at brooke_mcdavid@fws.gov.



Federal Subsistence Board

1011 East Tudor Road, MS 121
Anchorage, Alaska 99503 - 6199



FISH and WILDLIFE SERVICE
BUREAU of LAND MANAGEMENT
NATIONAL PARK SERVICE
BUREAU of INDIAN AFFAIRS

FOREST SERVICE

In Reply Refer To
OSM 22099.BM

SEPT 16 2022

Raymond Oney, Chair
Yukon-Kuskokwim Delta Regional Advisory Council
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503 - 6199

Dear Mr. Oney:

The Federal Subsistence Board (Board) met on April 12-15, 2022 to consider proposed changes to Federal subsistence management regulations for the harvest of wildlife on Federal Public Lands in Alaska and wildlife closure reviews. This letter is to provide a report on the actions taken by the Board on proposals and closure reviews affecting Federally qualified subsistence users.

Pursuant to section 805(c) of the Alaska National Interest Lands Conservation Act (ANILCA), Federal regulations (50 CFR 100.10 (e)) provides that the Board generally defers to the recommendations of a Subsistence Regional Advisory Council (Council) regarding take unless, (1) the recommendation is not supported by substantial evidence, (2) the recommendation violates recognized principles of fish and wildlife management, or (3) adopting the recommendation would be detrimental to the satisfaction of subsistence needs. When a Council's recommendation is not adopted, the Board is required by Secretarial regulations to set forth the factual basis and reasons for the decision.

The Board acted on 59 proposals and 16 closure reviews during the 2022-24 wildlife regulatory cycle. The Board agreed with the recommendations of the Regional Advisory Councils, in whole or with modifications, on 50 of 59 proposals. The Board deferred four proposals until the winter 2023 Board meeting: WP22-07, WP22-08, WP22-10, and WP22-40. The Board accepted the recommendations of the Regional Advisory Councils on 15 of 16 wildlife closure reviews, voting to maintain status quo on 14 of them. The Board also acted on deferred fisheries proposal FP21-10, adopting it with the Office of Subsistence Management modification.

Details of these actions and the Board's deliberations are contained in the meeting transcriptions. Copies of the transcripts may be obtained by calling toll free number 1-800-478-1456, and are

available online at the Federal Subsistence Management Program website, <https://www.doi.gov/subsistence>.

The Board uses a consensus agenda on those proposals and closure reviews where there is agreement among the affected Regional Advisory Council(s), a majority of the Interagency Staff Committee, and the Alaska Department of Fish and Game concerning a proposed regulatory action. These proposals and closure reviews were deemed non-controversial and did not require a separate discussion beyond that which was offered in the analysis. The consensus agenda contained two proposals affecting the Yukon-Kuskokwim Delta Region, which the Board deferred to the Yukon-Kuskokwim Delta Subsistence Regional Advisory Council (Council) recommendations as follows: the Board *adopted* **WP22-42**, which increased the moose harvest limit in Unit 18 remainder to three moose, and *rejected* **WP22-43**, which requested delegating authority to the Federal in-season manager to increase the moose harvest quota in Zone 1 of the Kuskokwim hunt area of Unit 18 if the water levels are too low to access Zone 2.

There were six remaining proposals affecting the Yukon-Kuskokwim Delta that appeared on the non-consensus agenda. For five of the proposals, the Board took action consistent with the Council's recommendations. The Board *adopted* statewide proposal, **WP22-01**, which clarified who is participant in a community harvest system and how participation affects community and individual harvest limits, statewide proposal **WP22-02**, which removed language from designated hunting regulations prohibiting the use of a designated hunter permit by a member of a community operating under a community harvest system, and **WP22-41**, which delegated authority to the Togiak National Wildlife Refuge manager to open and close seasons, announce harvest limits, and set sex restrictions across the range of the Mulchatna Caribou Herd via a delegation of authority letter. The Board *adopted with modification* **WP22-44**, which extended the fall moose season in the Kuskokwim hunt area of Unit 18 to Oct. 15 and established a may-be-announced winter season with a harvest limit of one antlered bull by Federal registration permit. The modification was to clarify the regulatory language and to delegate authority to the Yukon Delta National Wildlife Refuge manager to announce the winter season and set harvest quotas via delegation of authority letter only. The Board also *adopted with modification* **WP22-45**, which created specific harvest regulations for Alaska hare, including shortening the season to Aug. 1-May 31 and modifying the definition of hare.

The Board's actions differed from the Council's recommendations for one proposal on the non-consensus agenda: **WP22-47**. The Board's action on this proposal is explained in detail in the enclosed report.

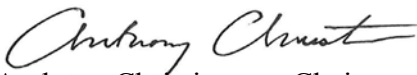
The Federal Subsistence Board appreciates your Council's active involvement in and diligence with the regulatory process. The ten Regional Advisory Councils continue to be the foundation of the Federal Subsistence Management Program, and the stewardship shown by the Regional Advisory Council chairs and their representatives at the Board meeting was noteworthy.

If you have any questions regarding the summary of the Board's actions, please contact Brooke McDavid, Council Coordinator, at (907) 891-9181 or brooke_mcdavid@fws.gov.

Chairman Oney

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Sincerely,


Anthony Christianson, Chair
Federal Subsistence Board

Enclosure

cc: Federal Subsistence Board
Yukon-Kuskwim Delta Council members
Office of Subsistence Management
Interagency Staff Committee
Administrative Record

FEDERAL SUBSISTENCE BOARD 805(c) REPORT

April 12-15, 2022
via teleconference

Section 805(c) of the Alaska National Interest Lands Conservation Act provides that the “Secretary ... shall consider the report and recommendations of the regional advisory councils concerning the taking of fish and wildlife on the public lands within their respective regions for subsistence uses.” The Secretary has delegated authority to issue regulations for the take of fish and wildlife to the Federal Subsistence Board. Federal regulations (50 CFR 100.10 (e)) provides that the Board generally defers to the recommendations of a Subsistence Regional Advisory Council; however, the Board “may choose not to follow any recommendations which [it] determines is not supported by substantial evidence, violates recognized principles of fish and wildlife conservation, or would be detrimental to the satisfaction of subsistence needs.” The purpose of this report is to detail how the Board’s action differed from the Council’s recommendations based on these criteria.

YUKON-KUSKOKWIM DELTA AREA WILDLIFE PROPOSALS

Crossover Proposals

Wildlife Proposal WP22-47

DESCRIPTION: WP22-47 requested that calf harvest be permitted for caribou in Unit 22. Submitted by: Western Arctic Caribou Herd Working Group

COUNCIL RECOMMENDATIONS:

Yukon-Kuskokwim Delta Subsistence Regional Advisory Council – **Support**

Western Interior Alaska Subsistence Regional Advisory Council – **Support**

Seward Peninsula Subsistence Regional Advisory Council – **Support**

Northwest Arctic Subsistence Regional Advisory Council – **Oppose**

North Slope Subsistence Regional Advisory Council – **Support with modification** to only allow harvest of orphaned calves.

BOARD ACTION: **Reject**

JUSTIFICATION: The Board stated that the Western Arctic Caribou Management Plan, which recommends a prohibition on calf harvest when the herd is under preservative management should be adhered to. This proposal would have violated recognized principles of fish and wildlife conservation per the harvest recommendations in the Western Caribou Management Plan which the Board had previously reviewed and voiced its approval of.



Federal Subsistence Board

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FISH and WILDLIFE SERVICE
BUREAU of LAND MANAGEMENT
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FOREST SERVICE

JUL 27 2022

In Reply Refer To:
OSM 22069.KW

Raymond Oney, Chair
Yukon-Kuskokwim Delta
Subsistence Regional Advisory Council
c/o Office of Subsistence Management
1011 East Tudor Road, MS 121
Anchorage, Alaska 99503-6199

Dear Chairman Oney:

This letter responds to the Yukon-Kuskokwim Delta Subsistence Regional Advisory Council's (Council) fiscal year 2021 Annual Report. The Secretaries of the Interior and Agriculture have delegated to the Federal Subsistence Board (Board) the responsibility to respond to these reports. The Board appreciates your effort in developing the Annual Report. Annual Reports allow the Board to become aware of the issues outside of the regulatory process that affect subsistence users in your region. We value this opportunity to review the issues concerning your region.

1. Donlin Gold Mine – Impacts to subsistence resources

The Council is concerned about impacts to subsistence resources from the development of the Donlin Gold Mine and barging of mining materials, fuel, and chemicals on the Kuskokwim River. The Kuskokwim River is the lifeblood of subsistence and source of drinking water for many communities in the Yukon-Kuskokwim Delta. The connectivity to the river is everything – if we lose our fish, our salmon, we will lose our entire way of life. The Council is concerned about direct impacts of mining and barging activities to subsistence fish and wildlife and their habitats. We are concerned about contaminants affecting the health of essential subsistence foods and, subsequently, the health of everyone in the region that depend on them.

The Council has expressed concerns in previous Annual Reports about the likely impacts to subsistence as reported in the Donlin Gold Project Final EIS ANILCA Section 810 analysis (enclosure), which indicates the mine as proposed “may significantly restrict” subsistence for every community in the vicinity and downriver of the mine – from Crooked Creek to the mouth of the Kuskokwim River. The Council also has very serious concerns about the proposed number of daily barges on the Kuskokwim River required to support the Donlin mine development and

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operations. Opportunity for subsistence fishing on the Kuskokwim is already limited for Chinook Salmon conservation measures. Greatly increased barge traffic, up to 200 percent with at least several barges heading upriver and downriver every day during open water on the river from break up to freeze up, June 1 to October 1st would only add to fisheries management challenges and interfere directly with subsistence fishing opportunity. Subsistence fishers will have to pull drift nets and move out of the way of barges. The large and long-lasting wake of large barges can also dislodge set nets and cause bank erosion thus impacting fish camps directly.

Additionally, the Council is gravely concerned about direct impacts on subsistence fisheries and resources from barge accidents spilling diesel fuel or other cargo, such as the cyanide that will be shipped in to process gold at the mine site. Sensitive fish habitat and out-migrating salmon smolts may also be negatively impacted by constant prop wash of large barges. Some critical spawning areas may be destroyed by the near constant large barge traffic, such as the shallow water gravel bed below Kalskag that is known as the primary Rainbow smelt spawning habitat. Communities will be at a direct risk of losing this highly valued subsistence resource – Rainbow smelt are some of the most abundant fresh subsistence fish harvested in the spring by communities all along the Kuskokwim River as they migrate upriver to spawn. All of this would occur within the Federal waters of the Yukon-Delta National Wildlife Refuge.

The Council would like more information on federal subsistence protections that can be taken to address impacts to subsistence identified in the enclosed in the Donlin Gold Project Final EIS ANILCA Section 810 analysis. The Council seeks to ensure subsistence priority and continuation of subsistence uses in the case of industrial activities such as the planned barge activities would directly harm subsistence resources or displace subsistence users from traditional fishing areas and activities.

Response:

The Board is aware of and shares your concerns about the potential impacts mining and barging activities may have on subsistence users and the important fish and wildlife on which you depend. We are familiar with the Donlin Gold Project Final EIS ANILCA Section 810 analysis and concur that it is useful for identifying potential impacts the project may have on subsistence resources and activities. Of particular interest are the mitigation measures detailed in the Final EIS Table C2, “Donlin Gold Mitigation Measures Relevant to Subsistence Uses and Resources.” Specific to your concerns are mitigation measures 47 and 48, found on page C2-12. These measures address barge interaction with subsistence activities and rainbow smelt monitoring respectively.

Concerning barge interactions, the final EIS suggests that “Donlin Mine should consult with local subsistence users for current information and traditional knowledge to identify locations and times when subsistence activities occur, and to the extent practicable, minimize impacts to these activities.” It further states that “Donlin Gold is currently in the process of forming subcommittees on barging and subsistence to engage the local communities to identify locations and times when subsistence activities occur, and opportunities to avoid, eliminate, or reduce

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conflicts that serve to restrict access to subsistence resources.” The mitigation measure recommended to address rainbow smelt states that “Donlin Gold would develop and implement a rainbow smelt monitoring program to establish additional baseline data for a better understanding of the species’ occurrence and the character, use, and distribution of spawning habitat along the Kuskokwim River.” Further information on this reported in the mitigation measures at time of publication of the FINAL EIS note that “Donlin Gold initiated the first round of data collection in May 2018. The data is being compiled and analyzed and the first report from the project should be available this fall documenting the results.” The Council can work through your Coordinator to request these reports and invite Donlin Mine to engage with the Council on the bargaining and subsistence subcommittees.

The Board encourages the Council to pursue options through the Federal Subsistence Management Program. You can identify baseline research needs on local fisheries through the Fisheries Resource Monitoring Program (FRMP). The Council and local subsistence users can also keep the federal managers apprised of potential impacts to the continuation of subsistence opportunities resulting from barge activities. Through continued engagement and communication, the Council can request that inseason managers incorporate barge traffic timing into the scheduling of fishing opportunities to reduce conflict with fisheries activities when possible.

2. Whitefish research request – Important subsistence whitefish in decline

The Council is concerned about observed decline in subsistence whitefish species both on the Yukon and Kuskokwim rivers. Council members and other local community members have observed smaller size and abundance of many of the whitefish species that are so important to subsistence. Now, more than ever whitefish are critical subsistence foods and the only fish to eat when the salmon fishing is restricted or closed due to the Chinook and Chum salmon population crash. The Council is concerned that the health and population of the whitefish species should also be monitored to ensure its continued viability for the future as well.

Response:

Thank you for sharing your concern about whitefish species within the Yukon and Kuskokwim rivers. The Board understands whitefish are a critical subsistence food, especially when harvest efforts shift away from salmon because of scarcity and associated restrictions on harvesting. It is important to understand whitefish population demographics to avoid overharvest and to maintain a viable, sustainable resource for subsistence users. The FRMP is a primary tool that the Federal Subsistence Management Program can use to support filling information needs.

The mission of the FRMP is to identify and provide information needs to sustain subsistence fisheries on Federal public lands and waters for rural Alaskans through a multidisciplinary and collaborative program. Requests for research proposals occurs every two years and are based on priority information needs based on recommendations of the Subsistence Regional Advisory Councils. Your Council has been instrumental in the FRMP with developing priority

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information needs and informing Board processes and actions.

The Board recognizes your Council has a history of supporting successful whitefish studies and encourages you to continue to build upon these through collaborative partnerships in the future. Your next opportunity to develop priority information needs for the 2024 FRMP cycle will be during your fall 2022 meeting. We value your input in developing priority information needs for your region and your support for proposals specific to monitoring the health and population of whitefish species within the Yukon and Kuskokwim rivers.

A synthesis of available information of the whitefish biology, distribution, and fisheries in the Yukon and Kuskokwim rivers drainages in Alaska as well as a list of whitefish research are available on line at:

<https://www.doi.gov/sites/doi.gov/files/migrated/subsistence/monitor/fisheries/upload/08-206-Whitefish-Strategic-Plan-Final.pdf>

A list of projects funded through the FRMP in the Kuskokwim Region regarding whitefish species since 2020 is enclosed for the Council reference. If the Council is interested in any of these particular projects, copies of projects' annual reports can be requested from OSM through your Council Coordinator.

3. Sockeye Salmon research request – Does Sockeye Salmon abundance affect other species?

Sockeye (Red) Salmon populations have been increasing on the Kuskokwim River in recent years. The Council is very grateful for the abundance of this subsistence salmon species but wonders if its increased population impacts other salmon such as Chinook and Chum. The Council is particularly interested to know if Sockeye Salmon affect the spawning grounds of other salmon species or outcompete other juvenile salmon for resources. Additionally, the Council is interested to learn more about whether there are any concerns about the continuing viability of the Sockeye Salmon if it increases so much to exceed carrying capacity in the available spawning and rearing habitat.

Response:

Thank you for sharing your concerns regarding recent trends of Sockeye Salmon abundance in the Kuskokwim River drainage and potential impacts to other salmon species essential to the subsistence way of life. Your expressed concerns touch upon the complex life history variations we see with salmon populations today. Population trends of salmon returning to the Kuskokwim River are cyclical in nature, as the Council has observed in the past few decades related to Chum and Chinook salmon returns. Sockeye Salmon returns have been generally greater in the recent past, apart from a few outliers in the early 2000s. This may have some impact on the other species.

Research has demonstrated that salmon spawning habitat is determined by the incubation needs

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of developing eggs. This affects where salmon choose to build their redds and bury their eggs in the gravel. Substrate particle size (broadly understood as “gravel”) is a key regulator of quality salmon spawning habitats (Wentworth 1922; Cummins 1962; McNeil and Ahnell 1964; Bjornn and Reiser 1991; Kondolf and Wolman 1993; Montgomery et. al. 1996; Riebe et. al. 2014). Substrate particles must be both fine enough for female salmon to move and large enough to resist scour from water flows. Salmon species such as Chinook Salmon with large body mass can move larger gravel and are therefore able to develop redds in higher velocity water where large gravel and small cobbles may be located.

Juvenile Sockeye, Chinook, and Chum salmon may occupy similar habitats, although not all may occupy these habitats at the same time of year. This may be because of varying life history strategies, such as migrating to sea upon emergence from the gravel (as with Chum Salmon) or occupying different habitats within a river system during summer or winter. Juvenile salmon species have definable freshwater habitat preferences that are in part based on the physical properties of the river such as water depth and velocity. A wealth of scientific literature exists on the habitat preferences of juvenile salmon species in Alaska. The Kuskokwim supports both lake- and stream-type spawning populations of Sockeye Salmon, the latter being where juveniles emerge from the gravel and develop in river channel and slough habitats where water velocities are slower than habitats typically occupied by juvenile Chinook Salmon.

In instances where juvenile salmon species may overlap in their habitat requirements, they may select different prey items that would further limit competition between species. At emergence, juvenile Sockeye and Chinook salmon move to stream margins and areas of cover where they may feed upon similar prey items (e.g., small aquatic insects). As the fish grow, they distribute to other more favorable habitats for protection (predator avoidance) or feeding. River-type Sockeye Salmon will seek out slower velocity habitats (sloughs, beaver ponds, back-watered habitats) where they may feed heavily on zooplankton and various small invertebrates, and Chinook Salmon may take up occupancy in progressively faster water, further reducing competition for food resources within respective habitat types.

Year to year variation in a population is often explained by the number of returning adults that meet escapement to spawn. If a population exceeds the carrying capacity in a system for a long period of time, then resources within the system may become depleted. If all or one of the resources required to successfully complete a species life history are not available, the species may die off within that system, or move to other areas where suitable resources are available. It is not yet clear what the carrying capacity of the Kuskokwim River to support Sockeye Salmon is, and it is a topic worthy of future research.

A list of projects funded through the FRMP in the Kuskokwim Region regarding Sockeye Salmon since 2020 is enclosed for the Council reference. If the Council is interested in any of these particular projects, copies of projects’ annual reports can be requested from OSM through your Council Coordinator.

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4. Catastrophic low returns of Chinook and Chum salmon on the Yukon and Kuskokwim rivers in 2021 and impacts to subsistence communities way of life

Council members and the rural communities we represent have tried repeatedly to convey the essential importance of salmon to our life and livelihood: salmon is who we are as people, it is our culture and way of life that we are born into. Communities all along the Yukon and Kuskokwim rivers have worked diligently to support these conservation efforts so that our children will be able to continue to harvest Chinook and Chum salmon in the future and live the subsistence way of life that revolves around family fish camp. The salmon declines and resulting severe restrictions to subsistence fishing is tearing away at the fabric of our culture, community, and families. The transmission of knowledge conveyed from generation to generation at family fish camp is being lost. Not only do we not have fish to feed our families, we do not have fish to share with others. Sharing is a central component of our cultural values: it takes care of our elders, those in need, family, and friends, bonds communities across the region, and is central to our celebrations and ceremonies. There is no other resource available to replace salmon for our communities.

The Chinook and Chum salmon run failures in 2021 resulted in the complete closure or severe restriction of subsistence salmon fishing for all communities along the Yukon and Kuskokwim rivers, tributaries, and coastal areas. This was the lowest ever Yukon River Coho and Chum salmon returns on record for the second year in a row. The crash of the Chinook and Chum salmon populations will likely result in severe restrictions or complete closure to subsistence fishing across western Alaska again this year. Subsistence salmon needs are not being met across Alaska. Pacific Salmon Treaty Chinook and Chum salmon escapement

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goals with Canada have not been met. And yet subsistence communities are bearing the burden of conservation, while the Bering Sea trawl fisheries continue unabated. Fish camps and freezers went empty, and there is no salmon to sustain all our many communities through the winter. Subsistence salmon fishing has been increasingly restricted over the past ten years due to diminishing Chinook Salmon returns. These diminishing Chinook Salmon returns, along with the catastrophic decline of Chum Salmon, caused complete closures to the harvest of a single salmon for subsistence. This is truly a crisis of such magnitude that calls for immediate and meaningful action to reduce all unnecessary mortality to western Alaska salmon stocks. We ask the Federal Subsistence Management Program to engage with intercept commercial fisheries in the Bering Sea and in the South Alaska Peninsula Management Area known as Area M.

The Board should be fully aware of the magnitude of these missing subsistence salmon resources. Kuskokwim harvest of Chinook and Chum salmon was half of lowest ever recorded subsistence harvest levels. The Yukon River drainage ten-year salmon harvest average from 2010 to 2019 was 27,919 Chinook Salmon, 91,253 Summer Chum Salmon, and 83,874 Fall Chum Salmon (https://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareayukon.subsistence_salmon_harvest). It should be noted that these 10-year harvest averages were during times of salmon conservation measures and not a true reflection of historical subsistence salmon harvest levels if subsistence were not restricted. Zero subsistence salmon were able to be harvested on the Yukon River in 2021.

Title VIII of ANILCA provides for subsistence priority above other consumptive uses and the Federal Subsistence Management Program manages for subsistence opportunity. Nothing is more devastating for our salmon culture and communities than to have absolutely no subsistence salmon fishing opportunity at all.

Response:

The Board takes the Council's comments on the extreme impacts of limited salmon harvest opportunities on the lives of people living in the Yukon and Kuskokwim river drainages very seriously and commiserates deeply with those who have borne the costs of harvest restrictions. In the Yukon and Kuskokwim river drainages, salmon is both critical for residents' basic sustenance and is the foundation on which residents form their cultural, spiritual, and individual identities. The conservation of Yukon and Kuskokwim river salmon species is imperative for the long-term health and survival of local ecosystems and communities.

Unfortunately, the 2022 run and harvest outlook is expected to be poor again for Yukon and Kuskokwim river salmon. Closures to the harvest of salmon by non-Federally qualified users on Federal public waters are necessary until in-season assessments may indicate otherwise. To do what is within our regulatory authority on this topic, the Board approved Temporary Fisheries Special Action Request FSA22-01 on the Yukon River. This action closed Federal public waters of the Yukon Northern Area to the harvest of Chinook, summer and fall Chum, and Coho salmon

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except by Federally qualified subsistence users, effective June 1, 2022 through September 30, 2022, with harvest opportunities to be determined by the Federal fisheries manager if fisheries run strength is sufficient to allow a Federal subsistence fishery. The action will help to aid conservation efforts of salmon and provide a priority for non-wasteful subsistence uses as required by Title VIII of the Alaska National Interest Lands Conservation Act (ANILCA). The Board has delegated in-season management authority to the Federal subsistence fisheries managers. If fisheries run abundance by species is sufficient to allow for Federal subsistence harvest, the Federal fisheries manager will issue emergency special actions announcing season schedules, openings, closures, and fishing methods.

As the 2022 run forecast suggests poor returns again for Kuskokwim River Chinook and Chum salmon, closures will again be needed to protect these vulnerable populations. The Board and Yukon Delta National Wildlife Refuge Manager, Boyd Blihovde, understand that restrictions on salmon harvesting have made it difficult for residents in this area to maintain food security and to preserve important cultural practices. Therefore, Manager Blihovde has used his authority delegated by the Board to periodically open Federal public waters of the main stem in the Kuskokwim River to Federally qualified subsistence users to use gillnets to harvest salmon. Limited, scheduled openings to Federally qualified subsistence users to harvest salmon by gillnets will help to meet both conservation concerns for salmon in the Kuskokwim River drainage and provide opportunities for subsistence uses. The Board encourages the Council to continue to help residents of the Yukon River and Kuskokwim River drainages through providing comments and written reports and engaging in the regulatory process.

5. North Pacific Fishery Management Council – Request to lower salmon bycatch and ADF&G -- Request to restrict Area M intercept fisheries

The Council is concerned about Bering Sea commercial trawl fisheries and high rates of Chinook and Chum Salmon bycatch that is still occurring even though the subsistence fisheries have been restricted throughout western Alaska and completely closed on the Yukon River and coast. The Council has requested that the North Pacific Fishery Management Council immediately reduce the bycatch hard cap for Chinook Salmon to 16,000 and establish a hard cap for Chum Salmon at 250,000, which is approximately half of the most recent Chum Salmon bycatch totals in 2021. In concurrence with other Yukon River Subsistence Regional Advisory Councils, the Council also request these bycatch caps be further reduced within a year to a hard cap of 10,000 for Chinook Salmon and 150,000 cap for Chum Salmon. These requests are completely reasonable if every fish counts and subsistence fishermen on the Yukon and Kuskokwim rivers are prevented from harvesting a single salmon. The Council further request these concerns be elevated to the Secretaries of the Interior and Agriculture and the Secretary of Commerce. The Council has written several letters addressing this in detail but also wants to put this on the record in our FY 2021 Annual Report to the Board.

Subsistence salmon needs are not being met; hundreds of Alaskans in subsistence communities are going hungry this winter due to closures to salmon fishing in order to meet escapement goals. Salmon is our life and livelihood. We cannot survive without it. There is no subsistence

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priority being protected in river if salmon are being caught by the thousands in the Bering Sea commercial fisheries. If subsistence fishing is restricted, then all commercial fisheries that intercept salmon must also be restricted. We request the Board engage on this issue with the North Pacific Fishery Management Council to reduce salmon bycatch in the Bering Sea commercial fisheries. We further request the Federal Subsistence Management Program engage with the Alaska Department of Fish and Game on Area M commercial fisheries to restrict catch of Arctic, Yukon, and Kuskokwim Chinook and Chum salmon stocks in that commercial fishery in support of our subsistence priority for salmon and continuation of customary and traditional subsistence salmon uses on the Yukon and Kuskokwim rivers.

Response:

The Board shares your continued concern for the decrease in Chinook and Chum salmon populations within the Yukon and Kuskokwim River drainages. We recognize your interest in having this concern noted for the record. Further, we acknowledge your Council's request to the North Pacific Fishery Management Council to reduce the hard cap for both Chinook and Chum salmon bycatch in the Bering Sea/Aleutian Islands commercial fishery. As the Federal Subsistence Management Program only has authority for management within Federal public waters within the Conservation Unit Boundaries of Federal Public lands and limited marine waters within or adjacent to Federal lands, the scope of our regulatory authority on this topic is limited. Although it is beyond the Board's authority, we are supportive of the steps your Council has taken over the years, such as writing letters to express your concerns to the North Pacific Fishery Management Council. The Board continues to urge the Council to remain vigilant in voicing concerns to the North Pacific Fishery Management Council and engaging in their regulatory process.

6. Mulchatna Caribou Herd decline – Conservation measures

The Council recently supported the Delegation of Authority to the Togiak National Wildlife Refuge Manager to manage the Mulchatna Caribou Herd. We request that the manager works closely in communication with the Council and local communities in the management of this critical subsistence resource. Local subsistence communities are out on the ground observing the caribou and its environment and can share their Traditional Knowledge. It is also imperative to keep communications open on the caribou conservation measures and to work together through these very difficult times when yet another critical subsistence resource is being restricted.

The Council is very concerned about the dramatic decline of the Mulchatna Caribou Herd. This is an incredibly important subsistence resource for numerous communities throughout the range of the herd. The Council endeavors to ensure that the herd will be able to recover so that it will remain a subsistence resource in the future. Therefore, the Council requests a full closure to any harvest of the Mulchatna Caribou Herd until it rebounds to the established population objective of at least 30,000 caribou. The Council further requests to:

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- *Establish jointly with the Federal Subsistence Board/Federal land managers a five-year moratorium to close the harvest of Mulchatna Caribou (or until the sustainable population objective goal of 30,000 caribou has been met) in order to help the caribou herd rebound so that the herd will once again be able to reach a population size that can sustain subsistence harvest into the future.*
- *Close all State and Federal lands to the harvest of Mulchatna Caribou Herd throughout their migratory range that includes all or portions of Units 9A, 9B, 9C, 17A, 17B, 17C, 17C remainder, 18, 18 remainder, 19A, and 19B.*
- *Maintain a sex ratio of 30 bulls: 100 cows (or a better ratio provided by biologists) that will increase caribou herd productivity.*
- *Support liberal subsistence harvest opportunity for bears and wolves.*
- *Conduct outreach on hunting regulations and closures, education, and incentives for caribou conservation measures.*
- *Improve knowledge of and compliance with harvest reporting requirements.*

The summer 2021 population estimate of the Mulchatna Caribou Herd is approximately 12,850, which is similar to the 2019 and 2020 estimates and well below the established minimum population objective of 30,000 caribou. As a result of this decline, conservation measures were implemented during the past two seasons including closures of the season by both State and Federal managers. To provide timely and flexible management, the Board delegated in-season management authority to the Togiak National Wildlife Refuge Manager for the 2020-2022 hunting seasons. Since receiving management authority, the Togiak Refuge Manager in collaboration with staff from the Alaska Department of Fish and Game determined that there is no harvestable surplus that would allow the herd to grow.

This hunting moratorium request is in the interest of allowing time for the Mulchatna Caribou Herd to recover. A closure to all harvest across the range of the Mulchatna Caribou Herd is warranted until the population can regrow to a sustainable level. A hunting moratorium will help send a clear message to all communities across the range of the herd about the dire situation of the herd's population size and the need to work together on communications and outreach to build support for these conservation efforts for a sustainable subsistence harvest opportunity in the future. The Council has experience with the success of similar hunting moratorium efforts in the past for moose on both the lower Yukon and Kuskokwim rivers, and now those moose populations have rebounded to provide for ample subsistence harvest opportunity. We believe the same can be achieved for the Mulchatna Caribou Herd.

Response:

The Board acknowledges the concerns regarding the population declines of the Mulchatna Caribou Herd and the importance of maintaining a sustainable subsistence harvest opportunity.

The Delegation of Authority Letter (DAL) to the Togiak National Wildlife Refuge Manager (Togiak NWR) for the management of the Mulchatna Caribou Herd was adopted during the April 2022 Board regulatory meeting. The DAL includes provisions that will allow for the in-

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season manager to respond quickly to the changing conditions of the herd. A stipulation of the DAL is that the Togiak NWR Manager coordinates any management actions with the Alaska Department of Fish and Game (ADF&G), OSM, the BLM Anchorage Field Office Manager, the Nushagak Peninsula Caribou Planning Committee, the Yukon Delta National Wildlife Refuge Manager, the Superintendent of Katmai National Park and Preserve, the Superintendent of Lake Clark National Park and Preserve, and the Chair of affected Council(s).

The Board encourages this Council to work with the in-season manager by providing information about the herd that will help with management and to help the in-season manager and ADF&G with outreach. Improving knowledge of and compliance with harvest reporting requirements and communicating these necessary conservation efforts will be most effective if done by everyone affected. Togiak NWR staff have worked with ADF&G staff in outreach, biological, and management efforts directed at the Mulchatna Caribou Herd. Outreach efforts include consulting with Tribes, providing herd information at Council and Fish & Game Advisory Committee meetings, and developing outreach products delivered via radio, postcards, and email.

The Federal in-season manager has the authority to open or close the Federal season for Mulchatna caribou each year on the Federal public lands. Federal and State caribou seasons were closed during the 2021/22 and 2022/23 regulatory years because of conservation concerns. The population size and trend, as well as bull:cow and cow:calf ratios and other composition factors are the primary determinants on whether to have a hunt or not.

7. Request to support additional subsistence moose harvest opportunity on the lower Yukon River to assist communities in need due to low salmon returns

The Council recently submitted Proposal WP22-42 to increase the moose harvest limit on the lower Yukon River in Unit 18 remainder from two to three moose. This request to increase the harvest limit by one additional moose in Unit 18 remainder is needed to continue subsistence uses and increases opportunity for the sharing of moose throughout the Yukon-Kuskokwim Delta region. Increasing the harvest limit will help to ensure long-term sustainability of the Lower Yukon River area moose population, which is currently too high to be supported by the local environment. If this moose population is not reduced, it is at risk of crashing due to over browsing of available forage.

The Council further requests support from the Federal Subsistence Management Program to assist with information and distribution of Designated Hunter Permits to these lower Yukon River communities to further aid in providing moose to communities and families in need of subsistence foods during these times of catastrophically low salmon returns. Additional harvest opportunity for moose in Unit 18 remainder will support the Lower Yukon River communities' ability to provide not only for their own families and community but also increases sharing opportunities with subsistence communities in other areas of the Yukon-Kuskokwim Delta that do not have as abundant moose populations, are currently restricted from hunting Mulchatna Caribou due to conservation concerns, and are in need of subsistence food support. Especially in

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these times of low salmon returns on the Yukon and Kuskokwim rivers and with the recent closures to the harvest of Mulchatna caribou greatly affecting the region, the super abundant moose populations of the Lower Yukon River region (Unit 18 remainder) can be a shared source of healthy subsistence food across the region with a little support to Tribes or City Councils to organize around issuing Designated Hunter Permits and distribution of moose to all communities with C&T in the region. Expanded harvest opportunity of the super-abundant moose in the lower Yukon River will help support sharing with those in need throughout the Yukon-Kuskokwim Delta region.

Response:

The Board adopted Proposal WP22-42 at their April 2022 regulatory meeting, increasing the moose harvest limit in Unit 18 remainder from 2 to 3 moose. The Board adopted this proposal as part of the consensus agenda to help limit the growth of the moose population and to provide additional opportunity for Federally qualified subsistence users.

OSM has staff available to assist in issues regarding Designated Hunter Permits. Since these are Federal permits, they must be issued by one of the Federal field offices in your area; the issuance of Federal permits cannot be delegated to village, Tribal, or State representatives. Sometimes, if time and staff are available, you may coordinate with the Yukon Delta National Wildlife Refuge to send staff to communities to issue permits. OSM also has staff that can educate and explain the issues regarding Designated Hunter permits. OSM staff have been unable to travel to meet with communities in person during the pandemic, but staff did conduct several training sessions via teleconference that were well received by the public.

- Please contact Boyd Blihovde, Refuge Manager (boyd_blihovde@fws.gov or 907-543-1002) to request a permit or inquire if it is possible to have a field staff member visit your community to issue permits.
- Please contact our OSM Permit Specialist, Derek Hildreth (derek_hildreth@fws.gov or 907-382-1253 or 907-786-3877) to set up a date/time for training/presentations regarding Designated Hunter Permits.

8. Request for information about Snowy Owl population

The Council has heard of declining snowy owl sightings throughout the Yukon-Kuskokwim Delta and would like a report on their population assessment and migration patterns. While the Council recognizes that the Federal Subsistence Program does not manage migratory birds, the snowy owl is important to subsistence communities in the Yukon-Kuskokwim Delta and an important indicator of overall ecosystem health. The Council wonders if the snowy owls are declining due to lack of prey. The Council has observed declines in Alaska hare (locally referred to as jackrabbits) populations and just supported a proposal to reduce subsistence harvest of Alaska Hare as a conservation measure. Conservation measures may be needed for the snowy owl as well.

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Response:

Snowy owls are typically considered a high Arctic species found in areas like Utqiagvik. Annual population fluctuations are expected in the Yukon-Kuskokwim Delta Region, which would also influence the frequency of on-the-ground observations. The USFWS Migratory Bird Management program currently does not conduct surveys for snowy owls in the Yukon-Kuskokwim Delta region. However, Steve Lewis, a raptor biologist in the Migratory Birds Program, would be happy to attend a Council meeting to discuss snowy owls with the Council. With interest and support from the Council, the Migratory Birds Program may be able to elevate the need for surveys and more information on snowy owls in the Yukon-Kuskokwim Delta Region.

Denver Holt with the Owl Research Institute has conducted research on snowy owls to determine factors contributing to snowy owl nesting declines in the Utqiagvik area. A few of the research manuscripts are in publication and can be found at <https://www.owlresearchinstitute.org/the-roost>.

Additionally, the Board encourages the Council to work with their Council Coordinator on inviting and scheduling researchers to present about snowy owls at their upcoming meetings.

In closing, I want to thank you and your Council for your continued involvement and diligence in matters regarding the Federal Subsistence Management Program. I speak for the entire Board in expressing our appreciation for your efforts and am confident that Federally qualified subsistence users of the Yukon-Kuskokwim Delta Region are well represented through your work.

Sincerely,



Anthony Christianson
Chair

Enclosure

cc: Yukon-Kuskokwim Delta Subsistence Regional Advisory Council
Federal Subsistence Board
Office of Subsistence Management
Interagency Staff Committee
Benjamin Mulligan, Deputy Commissioner, Alaska Department of Fish and Game
Mark Burch, Special Project Coordinator, Alaska Department of Fish and Game
Administrative Record

**FISHERIES RESEARCH MONITORING PROGRAM
PROJECTS FUNDED IN THE KUSKOKWIM REGION
REGARDING SOCKEYE SALMON SINCE 2000**

Project Number	Project Title	Investigators
Salmon Projects		
00-007	Tatlawiksuk River Salmon Weir	ADF&G, KNA
00-008	Bethel Inseason Subsistence Harvest Data	ONC
00-009	Bethel Postseason Harvest Monitoring	ADF&G, ONC
00-019	Kwethluk River Salmon Weir	USFWS, OVK
00-027	Goodnews River Salmon Weir	ADF&G
00-028	Kanektok River Salmon Weir	ADF&G, USFWS
00-029	Documentation/Communication on Floating Weirs	AVCP
00-030	Kuskokwim Salmon Project Site Surveys	ADF&G, USFWS
01-019	Planning Meetings in AVCP Region	AVCP, KNA
01-023	Upper Kuskokwim River Inseason Data	ADF&G, MNVC
01-024	Bethel Postseason Fishery Household Surveys	ADF&G, ONC
01-053	Tuluksak River Salmon Weir	USFWS, TNC
01-086	Kuskokwim River Escapement Project Technician	ONC
01-116	Kuskokwim River Salmon Work Group support	ADF&G
01-117	Kuskokwim Salmon Age-Sex-Length Assessment	ADF&G
01-118	Kanektok River Salmon Weir	ADF&G, BSFA
01-132	Bethel Inseason Subsistence Salmon Harvest Data	ONC, ADF&G
01-147	Aniak River Sport Fisheries Survey	ADF&G, KNA
01-225	Middle Kuskokwim River Inseason Salmon Harvest	KNA, ADF&G, USFWS
01-226	Subsistence Fisheries Research Capacity Building	ADF&G
02-036	Aniak Postseason Subsistence Fishery Surveys	ADF&G, KNA
03-030	Kuskokwim River Salmon Mark-Recapture	ADF&G, KNA
03-931	Kuskokwim Science Plan	BSFA
04-301	Kwethluk River Salmon Weir	USFWS, OVK
04-302	Tuluksak River Salmon Weir	USFWS, TNC
04-305	Kanektok River Salmon Weir	ADF&G, BSFA
04-310	Tatlawiksuk River Salmon Weir	ADF&G, KNA
04-353	Bethel Inseason Subsistence Salmon Data Collection	ADF&G, ONC
04-359	Kuskokwim Postseason Salmon Subsistence Harvest Surveys	ADF&G, KNA, ONC
05-304	George and Takotna River Salmon Weirs	ADF&G
05-306	Kuskokwim River Inseason Subsistence Harvest Data Collection	ADF&G, ONC
05-307	Lower Kuskokwim Subsistence Fisheries Catch Monitoring	ONC

Project Number	Project Title	Investigators
05-356	Kuskokwim Area Postseason Subsistence Salmon Harvest Survey	ADF&G
06-306	Lower Kuskokwim Salmon Inseason Subsistence Catch Monitoring	ADF&G
06-307	Kuskokwim River Salmon Management Working Group	ADF&G
07-303	Kuskokwim River Salmon Age-Sex-Length Assessment	ADF&G
07-304	Tatlawiksuk River Salmon Weir	ADF&G, KNA
07-305	Kanektok-Goodnews River Salmon and Dolly Varden Weirs	ADF&G
07-306	Kwethluk River Salmon Weir	USFWS, OVK
07-307	Tuluksak River Salmon Weir	USFWS, TNC
08-303	George River Salmon Weir	ADF&G
08-304	Takotna River Salmon Weir	ADF&G
08-352	Bethel and Aniak Postseason Subsistence Salmon Harvest Surveys	ADF&G
10-300	Kanektok and Goodnews River Salmon Assessment	ADF&G
10-303	Kuskokwim River Salmon Age Sex Length Assessment	ADF&G
10-304	Tatlawiksuk River Salmon Assessment	ADF&G
10-306	Kwethluk River Salmon Assessment	USFWS
10-307	Tuluksak River Salmon Assessment	USFWS
10-352	Kuskokwim Salmon Postseason Harvest Monitoring	ADF&G
10-353	Kuskokwim Salmon Working Group Support	ADF&G
10-354	Kuskokwim Salmon Inseason Harvest Monitoring	ADF&G
12-303	George River Salmon Weir	ADF&G, KNA
12-304	Takotna River Salmon Weir	ADF&G, TCA
12-309	Kwethluk River Salmon Weir	USFWS
14-302	Tatlawiksuk River Salmon Weir	ADF&G
14-303	George River Salmon Weir	ADF&G
14-306	Tuluksak River Salmon Weir	USFWS
14-308	Kwethluk River Salmon Weir	USFWS
14-352	Kuskokwim Area Salmon Post-season Subsistence Harvest Surveys	ADF&G
14-353	Kuskokwim River Salmon Inseason Subsistence Survey	ADF&G
16-301	Lower Kuskokwim River Subsistence Chinook Salmon Harvest ASL	ADF&G, ONC
16-302	Salmon River of the Pitka Fork Weir	ADF&G, MTNT
16-351	Middle Kuskokwim River In season Subsistence Salmon Harvest Monitoring and estimation	ADF&G, NVN
18-304	George River Salmon Weir	ADF&G
18-350	Bethel Subsistence Harvest Surveys	ONC, ADF&G
18-351	Kuskokwim Area Salmon Post Season Subsistence Harvest Surveys	ADF&G, ONC

Project Number	Project Title	Investigators
20-308	Kwethluk River Salmon Run Timing and Abundance	USFWS, OVK, KRITFC, BSFA

Abbreviations: AC = Alaskan Connections, ADF&G = Alaska Department of Fish and Game, AVCP = Association of Village Council Presidents, AV = Arctic Village, BF = Bill Fliris, BUE = Bue Consulting, BLM = Bureau of Land Management, BSFA = Bering Sea Fisherman's Association, CATG = Council of Athabascan Tribal Governments, CEC = Calista Education and Culture, COK = City of Kaltag, DFO = Department of Fisheries and Oceans, EMV = Emmonak Village Council, KAL = City of Kaltag, NPS = National Park Service, LTC = Louden Tribal Council, NVE = Native Village of Eagle, NVHB = Native Village of Hooper Bay, NVV = Native Village of Venetie, RN = Research North, RW = Robert Wolfe and Associates, SVNRC = Stevens Village, SZ=Stan Zuray, TCC = Tanana Chiefs Conference, TTC = Tanana Tribal Council, UAF = University of Alaska Fairbanks, USFWS = U.S. Fish and Wildlife Service, USGS = U.S. Geological Survey, UW = University of Washington, and YRDFA = Yukon River Drainage Fisheries Association.

**FISHERIES RESOURCE MONITORING PROGRAM
PROJECTS FUNDED IN THE KUSKOKWIM REGION
REGARDING WHITEFISH SPECIES SINCE 2000**

Project Number	Project Title	Investigators
Resident Species		
01-052	Whitefish Lake Humpback & Broad Whitefish	USFWS, KNA
01-112	Aniak River Subsistence Fisheries Study	ADF&G, KNA
04-304	Whitefish Lake Whitefish Telemetry	USFWS
05-301	Whitefish PIT Tags	USFWS
06-303	Kuskokwim River Whitefish Migratory Behavior	USFWS, KNA
06-305	Kuskokwim River Inconnu Spawning Distribution	ADF&G
06-351	Lower Kuskokwim Non-salmon Harvest and TEK	ADF&G, AVCP
10-305	Kuskokwim River Sheefish Spawning, Distribution and Timing	ADF&G
12-312	Status of sheefish in Highpower Creek and Upper Kuskokwim River	ADF&G
12-313	Location, Migration Timing, and Description of Kuskokwim River Bering Cisco Spawning Origins	KNA, USFWS
12-352	Whitefish Trends on the Upper Kuskokwim, Alaska	ADF&G
14-301	Kuskokwim River Broad Whitefish Spawning above McGrath	USFWS
14-307	Upper Kuskokwim River Sheefish Enumeration	USFWS
14-356	Lower Kuskokwim Villages Whitefish	CEC

Abbreviations: AC = Alaskan Connections, ADF&G = Alaska Department of Fish and Game, AVCP = Association of Village Council Presidents, AV = Arctic Village, BF = Bill Fliris, BUE = Bue Consulting, BLM = Bureau of Land Management, BSFA = Bering Sea Fisherman's Association, CATG = Council of Athabascan Tribal Governments, CEC = Calista Education and Culture, COK = City of Kaltag, DFO = Department of Fisheries and Oceans, EMV = Emmonak Village Council, KAL = City of Kaltag, NPS = National Park Service, LTC = Louden Tribal Council, NVE = Native Village of Eagle, NVHB = Native Village of Hooper Bay, NVV = Native Village of Venetie, RN = Research North, RW = Robert Wolfe and Associates, SVNRC = Stevens Village, SZ=Stan Zuray, TCC = Tanana Chiefs Conference, TTC = Tanana Tribal Council, UAF = University of Alaska Fairbanks, USFWS = U.S. Fish and Wildlife Service, USGS = U.S. Geological Survey, UW = University of Washington, and YRDFA = Yukon River Drainage Fisheries Association.

For a comprehensive overview of Whitefish in the Yukon and Kuskokwim River drainages, including an extensive reference list of available literature, please refer to Brown et al. 2012.

Brown, R. C. Brown, N.M. Braem, W.K. Carter III, N. Legere, and L. Slayton. 2012. Whitefish biology, distribution, and fisheries in the Yukon and Kuskokwim River drainages in Alaska: a synthesis of available information. U.S. Fish and Wildlife Service, Fisheries Data Series Number 2012-4, Fairbanks, Alaska



Federal Subsistence Board

**1011 East Tudor Road, MS 121
Anchorage, Alaska 99503 - 6199**



**FISH and WILDLIFE SERVICE
BUREAU of LAND MANAGEMENT
NATIONAL PARK SERVICE
BUREAU of INDIAN AFFAIRS**

FOREST SERVICE

**In Reply Refer To
OSM 22107.BM**

SEPT 15 2022

Raymond Oney, Chair
Yukon-Kuskokwim Delta
Subsistence Regional Advisory Council
1011 East Tudor Road, M/S 121
Anchorage, Alaska 99503-6199

Dear Mr. Oney:

Thank you for bringing to the attention of the Federal Subsistence Board the issue of Council member reimbursement for excess phone and internet expenses incurred during Council meetings held via teleconference. The Office of Subsistence Management has reviewed the policies regarding Council member reimbursement and would like to provide your Council with information on the types of expenses that may be reimbursed and the documentation necessary to receive reimbursement.

When Council meetings are held virtually, Council members may be reimbursed for internet or phone charges that are in excess of their normal bill. Council members who have internet or cellular plans that charge a flat monthly fee that they pay regardless of Council meetings cannot be reimbursed their normal charges. In order for Council members to receive reimbursement for excess charges, they need to submit a copy of their bill that covers the time period during which the virtual Council meeting took place and indicate the excess charges for attending the virtual meeting. Council members can submit this information to their Council Coordinator or mail their bills to the Office of Subsistence Management at 1011 E. Tudor Road, Mail Stop 121, Anchorage, Alaska 99503. This applies to all past meetings beginning from the winter 2020 meeting cycle that took place virtually due to the COVID-19 pandemic and any future meetings that may be held virtually.

The Federal Subsistence Board appreciates your Council's active involvement in the Federal Subsistence Management Program and the dedication of Council members to resource stewardship on Federal public lands in Alaska. If you have any further questions regarding Council member reimbursements, please contact Brooke McDavid, Council Coordinator, at (907) 891-9181 or brooke_mcdavid@fws.gov.

Chair Oney

Sincerely,



Anthony Christianson, Chair
Federal Subsistence Board

cc: Federal Subsistence Board
Yukon-Kuskokwim Delta Subsistence Regional Advisory Council Members
Southeast Alaska Subsistence Regional Advisory Council Members
Southcentral Alaska Subsistence Regional Advisory Council Members
Kodiak Aleutians Subsistence Regional Advisory Council Members
Bristol Bay Subsistence Regional Advisory Council Members
Western Interior Alaska Subsistence Regional Advisory Council Members
Seward Peninsula Subsistence Regional Advisory Council Members
Northwest Arctic Subsistence Regional Advisory Council Members
Eastern Interior Alaska Subsistence Regional Advisory Council Members
North Slope Subsistence Regional Advisory Council Members
Office of Subsistence Management
Interagency Staff Committee
Administrative Record



Federal Subsistence Board News Release



U.S. Fish and Wildlife Service
Bureau of Land Management
National Park Service
Bureau of Indian Affairs

Forest Service

For Immediate Release:
May 24, 2022

Contact: Robbin La Vine
(907) 786-3353 or (800) 478-1456
robbin_lavine@fws.gov

The Federal Subsistence Board Adopts Temporary Special Action FSA22-01

This news release was originally released May 6, 2022. In this version, paragraphs 1 and 2 have been revised.

The Federal Subsistence Board (Board) met in public by teleconference on May 4, 2022 and adopted Temporary Special Action FSA22-01 for conservation purposes. Specifically, the Board closed Federal public waters of the Yukon **River drainage** to the harvest of Chinook, summer and fall Chum, and Coho salmon except by Federally qualified subsistence users, effective June 1, 2022, through September 30, 2022, with harvest opportunities to be determined by the Federal fisheries manager if fisheries run strength is sufficient to allow a Federal subsistence fishery.

Federal public waters of the Yukon **River drainage** include all navigable and non-navigable freshwaters located within and adjacent to the exterior boundaries of National Wildlife Refuges, National Parks and Preserves, and National Conservation Areas, as well as those segments of the National Wild and Scenic Rivers system located outside the boundaries of other listed Federal conservation units. Federal public waters also include all freshwaters flowing into the Bering Sea between the latitude of Point Romanof and the latitude of the westernmost point of the Naskonat Peninsula within the external boundaries of the Yukon Delta National Wildlife Refuge.

The Board stated that Yukon River drainage salmon runs have recently been some of the worst on record, which resulted in closures and restrictions to salmon harvest the past four years. The 2022 run and harvest outlook is expected to be poor for all Yukon River salmon species and closures to the harvest of salmon by non-Federally qualified users on Federal public waters is necessary until in-season assessments may indicate otherwise. This action is necessary for the conservation of fish resources in Federal public waters. It also provides a priority for non-wasteful subsistence uses as required by Title VIII of the Alaska National Interest Lands Conservation Act. The Board has delegated in-season management authority to the Federal fisheries manager. If fisheries run abundance is sufficient to allow for Federal subsistence harvest, the Federal fisheries manager will issue emergency special actions announcing season schedules, openings, closures and fishing methods. The Board took no action on Temporary Special Action Requests FSA22-02, -03, and -04 based on the adoption of FSA22-01.

Additional information on the Federal Subsistence Management Program may be found on the web at www.doi.gov/subsistence or by visiting www.facebook.com/subsistencealaska.

Missing out on the latest Federal subsistence issues? If you'd like to receive emails and notifications on the Federal Subsistence Management Program, you may subscribe for regular updates by emailing fws-fsb-subsistence-request@lists.fws.gov.

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2022 Preliminary Yukon River Salmon Fisheries Review

Presented by the U.S. Fish and Wildlife Service Yukon Team
For the Fall Regional Advisory Council Meetings

This summary is considered preliminary as estimates of abundance may change post season. Fall season data is still being compiled at time of submission, and therefore should be considered incomplete. This report is compiled by U.S. Fish and Wildlife Service (Service) in cooperation with the Alaska Department of Fish and Game (ADF&G).

Going into the season, the Yukon Chinook and Chum salmon had very poor projected run sizes. There was little to no expected harvestable surplus available for subsistence salmon fishing, and therefore salmon fishing closures were needed throughout the season. We tried to give plenty of notice to fishermen on what to expect. The outlook and management strategy were discussed in depth during the spring of 2022 at the following meetings: Yukon River Panel, the Yukon River Intertribal Fish Commission preseason meeting, and the Yukon River Drainage Fishermen's Association (YRDFA) Board meeting, and preseason fishermen's meeting.

The colored Outlook flier with the pre-season management strategy was mailed to all Yukon River households in April. Below we outline how each run compared to their respective preseason forecast and historical run sizes.

Summer Season

The 2022 Chinook Salmon drainage wide outlook was for a run size of 99,000 to 150,000 fish, with the Canadian component forecast to be approximately 41,000 to 62,000 fish. The Chinook Salmon drainage wide run was much lower than the preseason outlook and the worst on record with approximately 45,000 Chinook Salmon passing Pilot Station sonar (Figure 1). Of those passing the sonar, approximately 20,000 were Canadian-Origin and were expected at the Eagle sonar. Only 12,000 Canadian-origin Chinook Salmon passed the Eagle sonar (Figure 2), well below the Interim Management Escapement goal of 42,500 to 55,000. For the fourth season in a row, nearly half as many Canadian-origin Chinook Salmon as expected arrived at the Eagle sonar. While we do not know what is causing this discrepancy, there are indications Chinook Salmon may be dying during their migration in the upper river (known as en route mortality). See details of our collaborative research in the "*Ichthyophonus*" section below.

The summer Chum Salmon run was projected to be 162,000 to 542,000 fish. The run fell within the forecast, but too poor in season to provide any surplus for subsistence harvest. As of the transition date to fall season at the Pilot Station sonar, July 18, the run appeared to have fallen short of meeting the drainage wide escapement goal of 500,000 to 1.2 million. As of July 18, 437,000 summer Chum Salmon had passed the sonar (Figure 3). However, there is a bright spot for this species, as the run was more than twice the size of as the record low return in 2021. Further, once genetic mixed stock data are applied to the summer Chum Salmon counts, and estimates of harvest and escapement below the sonar are considered post season, it may be that the summer Chum Salmon run met the lower end of the drainage wide escapement goal. However, the escapement goals for summer Chum Salmon were not met at the Anvik river and counts at other assessment projects were still well below average.

Fall Season

The fall Chum Salmon outlook was between 78,100 to 148,000 fish. In season the run came in stronger than was forecast but still well below the lower end of the drainage wide escapement goal of 300,000 fish. The final day of counting at Pilot Station sonar was September 7. Approximately 325,000 Chum Salmon passed the sonar between July 19 and September 7 (Figure 4). In season, genetic mixed stock analysis (MSA) was applied to Pilot Station sonar counts to provide a more accurate index of fall Chum Salmon abundance. The in river abundance estimate of fall Chum Salmon was approximately 237,000 and is short of the 300,000 fish to meet escapement needs or to provide any subsistence harvest. As of September 7, the Fall chum salmon count at Eagle sonar was 3,198, which is below the average of 15,664 for this date. While the Eagle sonar project has counted just under the first quarter of the run, MSA estimates indicate counts at the Eagle sonar will be similar to 2021, and therefore Canadian border objectives for fall Chum Salmon will not be met this season. The passage estimates of fall Chum salmon at Teedriinjik sonar are well below average and it is unlikely the escapement goal will be met. Sheenjek River sonar counts are also well below average. Upper River sonar escapement projects for fall Chum Salmon are ongoing at time of submission of this document and estimates are incomplete.

The Coho Salmon run outlook was for a below average return. The Coho Salmon run came in better than the record low return in 2021, with approximately 92,000 fish counted at the Pilot Station sonar through September 7, which is below the average of 145,000 fish. (Figure 5).

While forecasts for next year are not available, it is heartening to see the Chum and Coho salmon runs both increased over last year, which may indicate runs could be larger next year.

Management Actions

The Federal Subsistence Board closed Federal public waters of the Yukon River drainage to the harvest of Chinook, summer and fall Chum, and Coho salmon except by Federally qualified subsistence users, effective on June 1, 2022, through September 30, 2022, with specific Federal subsistence fishing schedules, openings, closures, and fishing methods to be determined by the Federal Fisheries Manager. Under the Delegated letter of Authority, and in consultation with Regional Advisory Council chairs and Office of Subsistence management staff, the Federal in season Manager began issuing emergency special actions to close salmon fishing in each

district, starting on June 2, and moving the closures upriver based on salmon migration timing. These management actions were taken in consultation and concurrently with ADF&G announcements which restricted state-managed waters.

Unfortunately, due to the poor outlook and returns, subsistence salmon fishing for Chinook and Chum salmon were essentially closed for the entire season. Managers provided liberal opportunity for subsistence fishers to harvest non-salmon species using 4-inch or smaller mesh gillnets (restricted to 60 feet maximum length) and other selective gear types while allowing the retention of Pink, Sockeye, and Coho salmon. Fishers were encouraged to avoid fishing in areas with high Chinook and Chum salmon abundance and to release healthy fish back to the river, however, retention of dead or injured Chinook and Chum salmon was allowed. Fishers on the YR DFA teleconference reported that some people were returning healthy Chinook and Chum salmon back to the river. While the mainstem restrictions for subsistence salmon fishing will be relaxed in October, some tributaries such as the Koyukuk River, Teedriinjik and Porcupine rivers will need to stay closed through December in order to avoid harvest of actively spawning fall Chum Salmon.

The Service acknowledges the last two years with no directed subsistence salmon fishery has resulted in tremendous hardship, loss of cultural practices, and unprecedented sacrifice within Yukon River households and communities. We recognize all of those who continue to be stewards of their surrounding lands and waters and would like to express a special thank you to those who have stayed involved at various public outreach meetings during these disheartening times of low abundance.

Tribal Consultation, Public Outreach, and Meetings.

The U.S. Fish and Wildlife Service (Service) has a core mission to consult with Federally Recognized Tribal Governments and the Yukon Fisheries team has been working to expand and improve government-to-government consultation. This spring 2022, the Service held six district-wide formal Tribal Consultation teleconference meetings with Yukon River Tribal Governments. The Federal Subsistence Fishery Manager presented information on the outlook and management strategy for the 2022 salmon season, provided opportunity for discussion among Tribal representatives and Service staff on the provided information as well as other topics such as the Federal special action (22-01), updates on *Ichthyophonous* research and other topics chosen by Tribal representatives.

This fall 2022, the Service will offer one-to-one Tribal Consultations with any Tribal Government that requests one with the Inseason manager. An invitation will be sent to each Yukon River Tribal Government and ANCSA offering the opportunity to schedule any requested meetings. This approach will allow each Tribal Government to tailor the consultation around their individual topics of concern, questions or recommendations regarding Yukon River fisheries management. In spring, district-wide Tribal Government Consultations may be offered to share salmon outlooks prior to the 2023 fishing season.

Inseason assessment data and management actions were shared weekly on the Tuesday YR DFA teleconferences. Throughout the fishing season, management staff also responded to daily emails and phone calls from community members. The Federal emergency special actions were announced on the same day as ADF&G Advisory Announcements, and were emailed to City and

Tribal Government offices, posted online under Fisheries Special Actions on the Office of Subsistence Management website and Subsistence Facebook page and distributed by email to anyone signed up to receive Federal announcements. **If you did not receive Federal announcements this summer, please contact the Service management staff (listed at the end of document) to get signed up for future notices. If you have feedback about federal management and how it went this season, we would love to hear it; please call or email the Federal team.**

***Ichthyophonus* Study**

Ichthyophonus is a parasite that can affect Yukon River Chinook Salmon and was studied in the past when the disease was more pervasive in the run. Research dropped off when we saw very low levels of the disease in the population. However, trained subsistence fishers in the Rapids area reported an increase of *Ichthyophonus* (as detected by spots on the heart or poor meat quality in Chinook Salmon) during the 2020 season. Feasibility sampling and laboratory analysis during the 2021 season confirmed high prevalence of the infection in the fish and high severity in fish lower in the river than we have seen in the past. The Service and the ADF&G worked together to plan and implement a multi-year study to look at the amount of disease in the population, the severity of the disease, and whether Chinook Salmon are dying, as a result of disease, before reaching upper portions of the mainstem and spawning locations.

Unfortunately, there is no way to study this disease without taking samples from internal organs, which requires sacrificing the fish. While this is controversial, especially in these times of closures to fishing and poor escapements, it is essential we study this disease while it has a strong presence in the population, document the impacts of the disease on the run and escapement, and develop tools to address impacts in future years. *Ichthyophonus*-related inriver mortality is the leading hypothesis to explain the difference between the estimate of Canadian-origin Chinook Salmon at Pilot Station sonar and the observed passage at Eagle sonar. Without a focused investigation, we cannot conclude if *Ichthyophonus* disease-associated mortality explains the disparity and lack of management success, but the continued high prevalence of disease paired with the large difference between estimates does indicate a pressing need to study this disease now.

Steps were taken to minimize the impact of the study and ensure that sampled fish were used to the greatest possible benefit. Careful planning of the minimum sample sizes needed for statistical rigor were considered, and all fish taken in the study were donated to local elders, tribes and individuals for traditional use. Furthermore, Lower Yukon Test Fishery had a considerably reduced harvest this season which reduced the overall number of sacrificed Chinook Salmon necessary in usual seasons.

Official sampling began in 2022 at three sites: Pilot Station sonar test fishery (in the lower River), Rapids at a fish wheel test fishery contracted by USFWS (in the middle river), and at the Eagle Sonar test fishery (upper river). Sampling goals were achieved at Pilot Station (n = 202) and the Rapids (n = 200), however, due to the very low catches, sampling at Eagle sonar was reduced (n = 50). Preliminary results will be shared this winter.

The overall goal of the project is to establish a new long-term *Ichthyophonus* disease monitoring platform in the lower Yukon River, build capacity and support for community-based *Ichthyophonus* monitoring, and determine if *Ichthyophonus* is associated with en route mortality so management adjustments can be made if necessary.

The fish in this study were also sampled for a variety of additional research projects addressing Yukon Chinook salmon health and life history. This is a collaborative effort between ADF&G, the Service, and multiple fish disease experts, affected communities, and local fishermen.

The following figures show inseason abundance indices for each species compared to previous seasons. These estimates should not be used to compare to escapement goals, as runs are reconstructed post season using methods that account for harvest, escapement, and genetic mixed stock analysis.

Figure 1. Cumulative passage of Chinook salmon at the Pilot Station Sonar from 1995 through 2022, excluding 1996 and 2009.

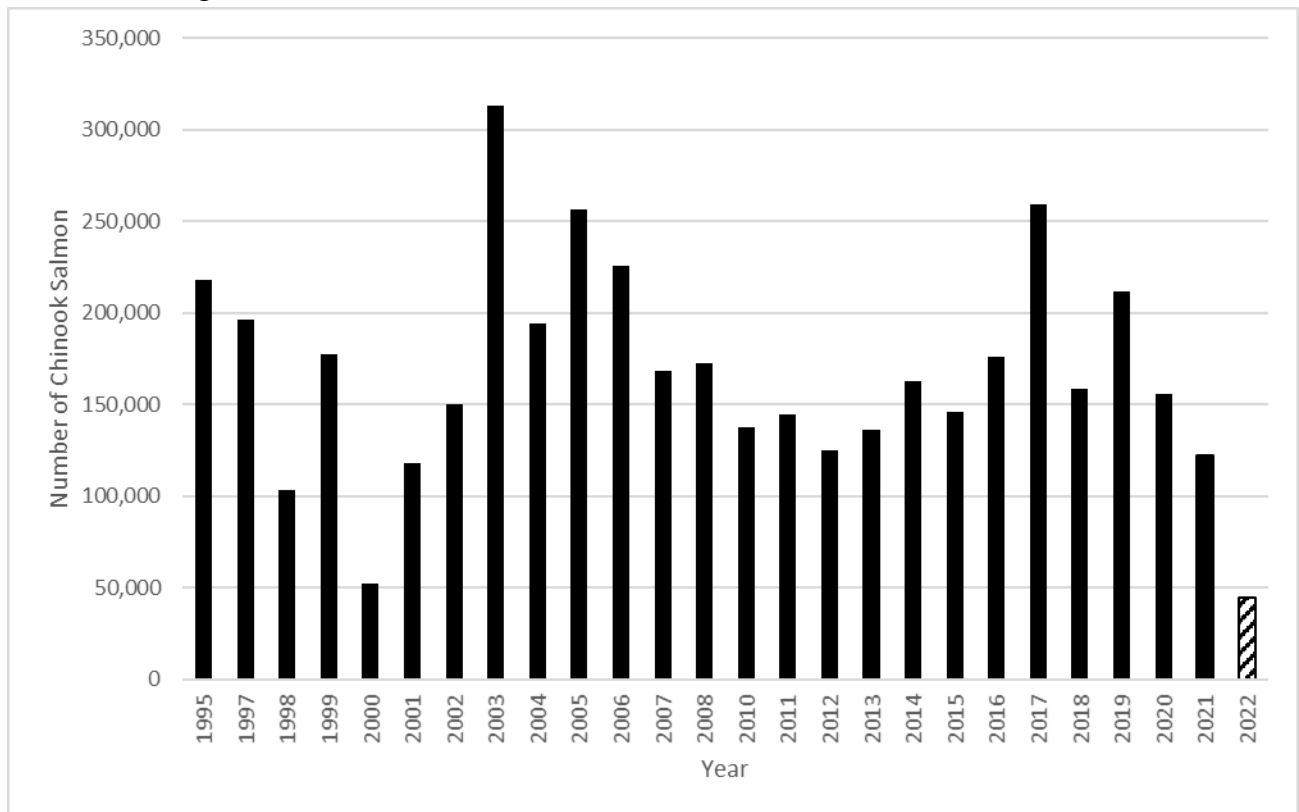


Figure 2. Cumulative passage estimates of Canadian-origin Chinook Salmon at Eagle Sonar from 2005 through 2022.

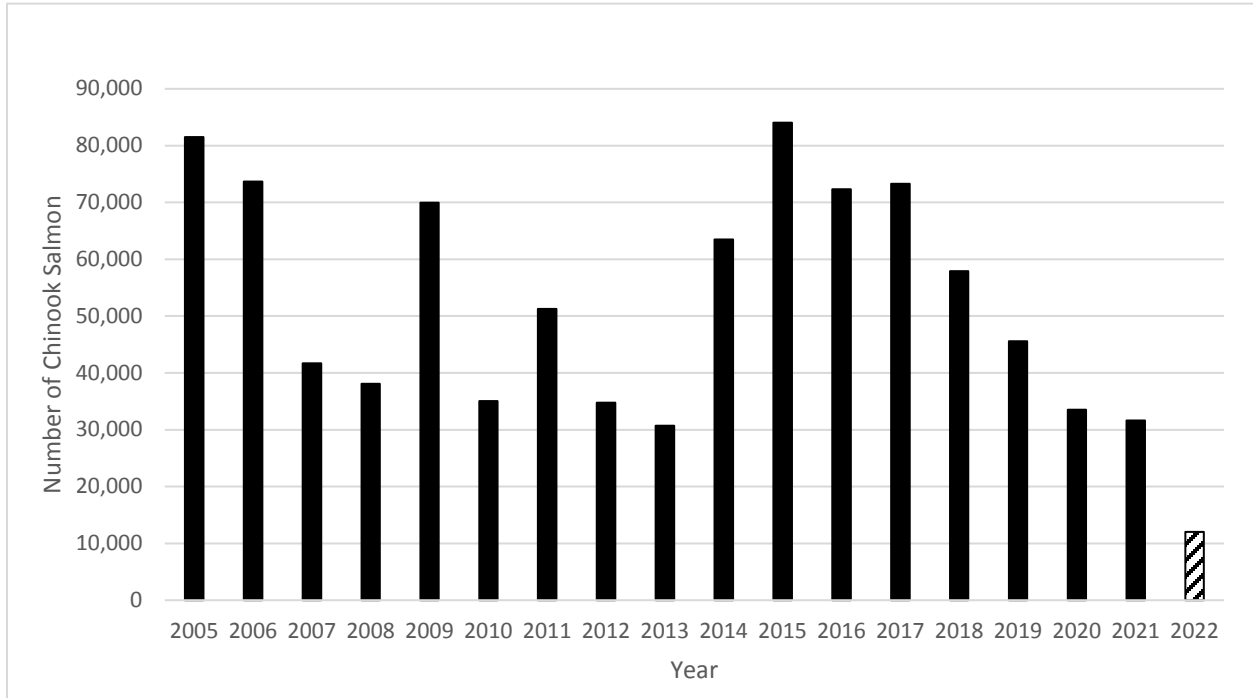


Figure 3. Cumulative passage of summer Chum Salmon at the Pilot Station Sonar project (through July 18) from 1995 through 2022, excluding 1996.

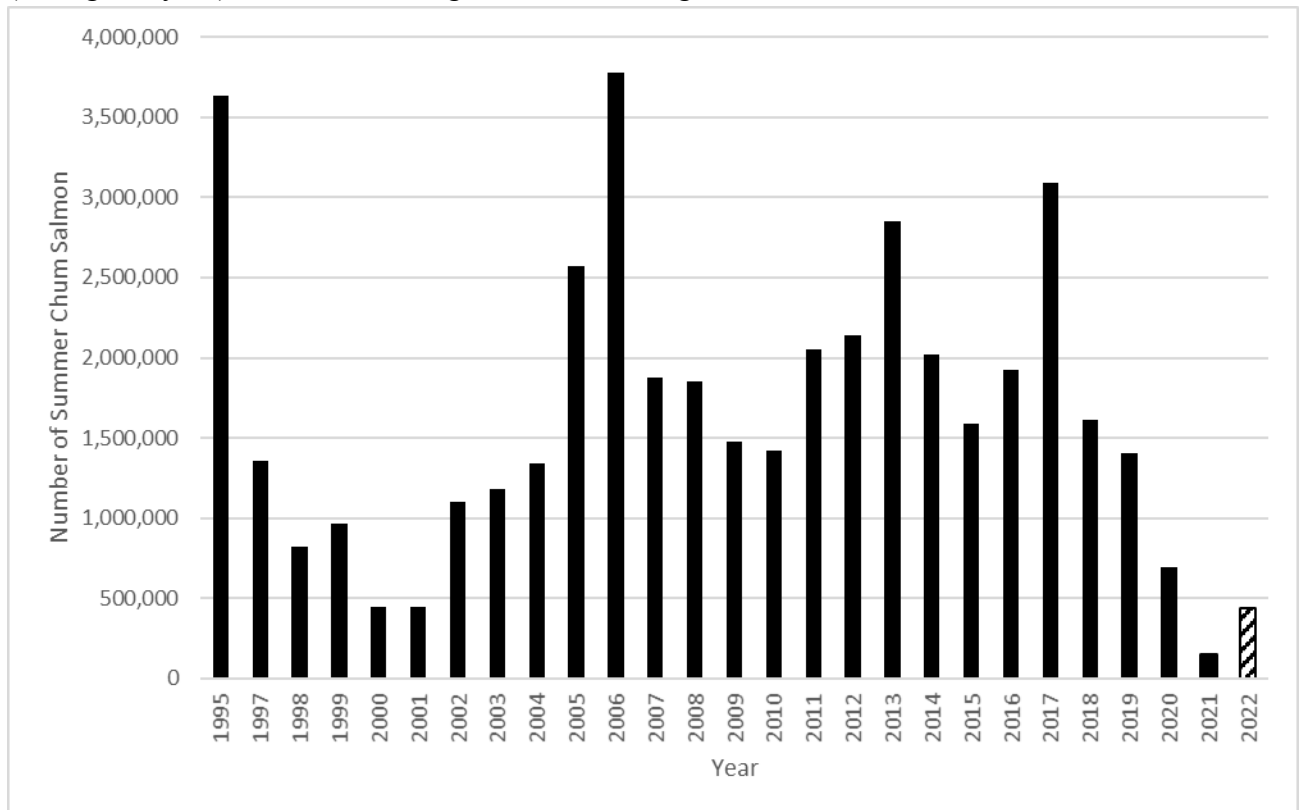


Figure 4. Cumulative passage of fall Chum Salmon (after July 18) at the Pilot Station Sonar project from 1995 through 2022, excluding 1996 and 2009.

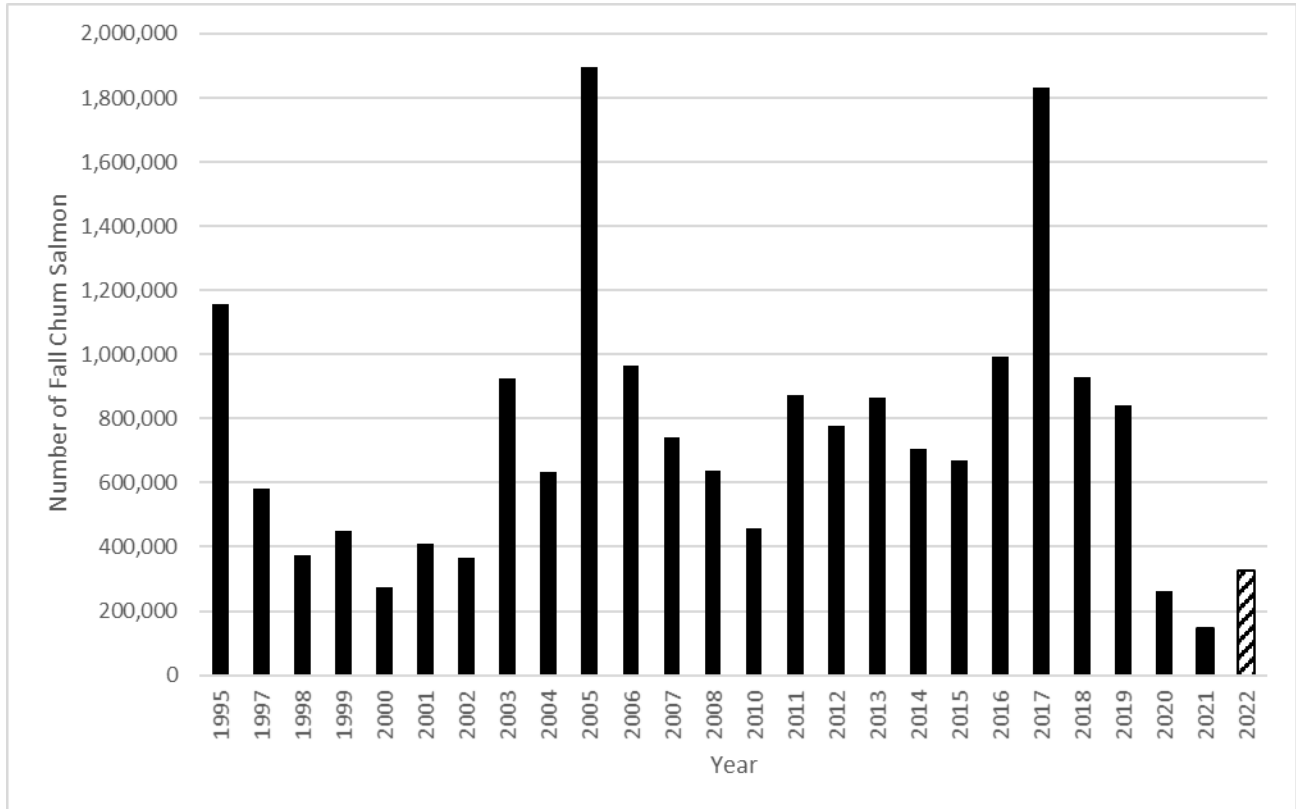
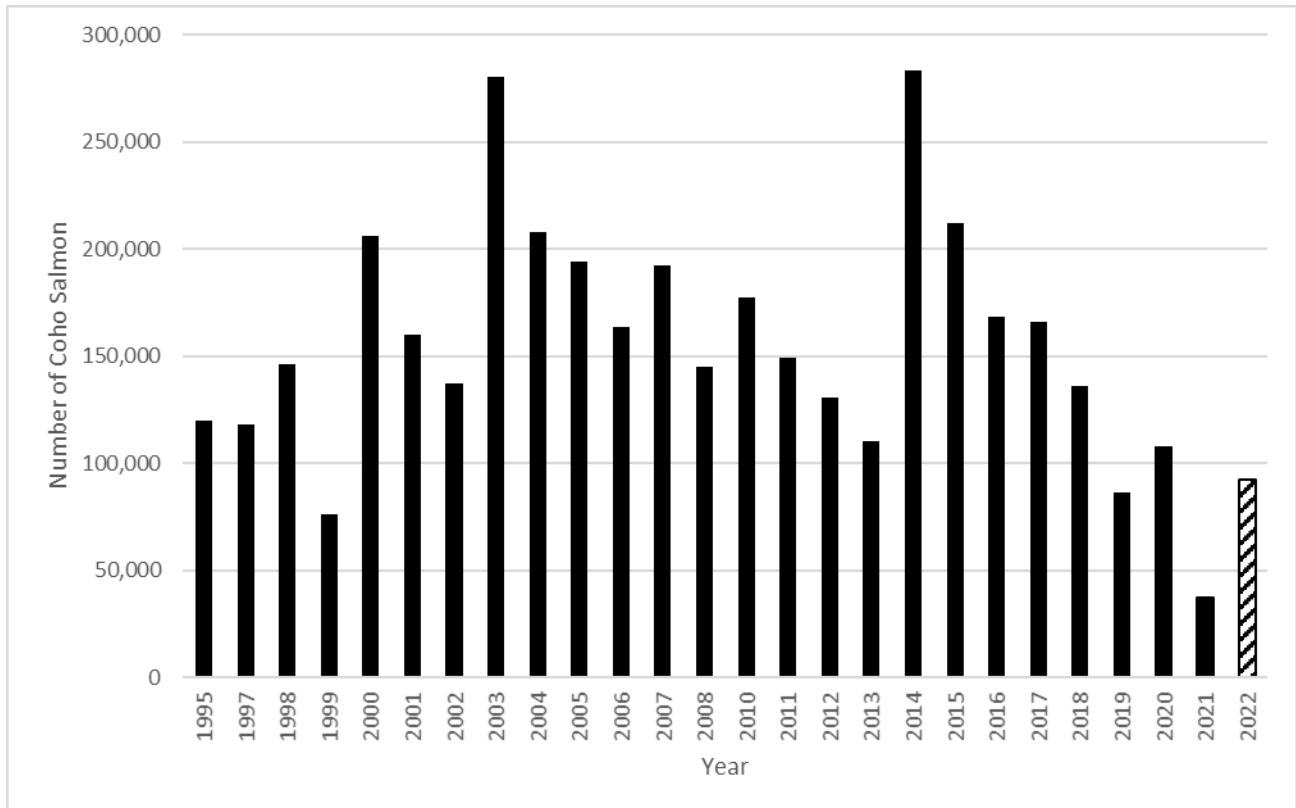


Figure 5. Cumulative passage of Coho Salmon at the Pilot Station Sonar project from 1995 through 2022, excluding 1996 and 2009. The sonar ceases operations before the Coho Salmon run is complete, so estimates are considered an index.



Please contact any member of our team with questions about Yukon Fisheries:

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Yukon Delta National Wildlife Refuge
P.O. Box 346
Bethel, Alaska 99559



IN REPLY REFER TO:

Office Of Subsistence Management
1011 E. Tudor Road, Mail Stop 121
Anchorage, Alaska 99503

September 22, 2022

Dear Yukon-Kuskokwim Delta Regional Advisory Council Chairman,

We are pleased to provide your regional advisory council with this summary of the 2022 Federal in-season management actions and outcomes for Kuskokwim River Chinook, Chum, and Coho Salmon. Our aim is to make this summary report understandable, non-technical, and accessible. The salmon management team from Yukon Delta National Wildlife Refuge (YDNWR) takes our role as the Federal Subsistence Board's delegated Federal In-Season Manager very seriously. As a result, we're happy to provide this summary and welcome further discussion if desired.

During the 2022 season, the YDNWR team worked closely with the Kuskokwim River Inter-Tribal Fish Commission (KRITFC) and the Alaska Department of Fish and Game (ADF&G) to manage Chinook and Chum Salmon on the Kuskokwim River.

In spring of 2022, YDNWR and KRITFC continued its joint Kuskokwim River Salmon Management Strategy and Harvest Strategy. These strategies were developed according to the following guiding principles:

- Avoid collective overharvest of Chinook and Chum Salmon populations within the Kuskokwim River watershed through the application of a precautionary approach to harvest management.
- Integrate meaningful local and traditional knowledge into the fisheries management decision-making process.
- Strive to provide for continued customary and traditional subsistence harvest.
- Sustainably manage other currently healthy salmon populations within the Kuskokwim River watershed.
- Uphold federal fisheries conservation and stock diversity mandates

The cooperative federal mixed stock fisheries management approach taken by YDNWR and KRITFC focused on meeting essential salmon conservation objectives and adapting to environmental and management risk factors, while also providing harvest opportunities such that stock rebuilding objectives were not compromised.

Balancing Chinook and Chum Salmon conservation with the continuation of customary and traditional federal subsistence uses and Tribal food security is challenging, especially due to data limitations. Existing in-season stock assessment tools are limited to the ADF&G's Bethel Test Fishery project that provides only an index of salmon abundance and the recent ADF&G Bethel Sonar project, which is a direct salmon passage enumeration project. Another important data set used during the in-season period was the in-season data generated from the community-based harvest monitoring project and calculated Catch Per Unit Effort (CPUE). YDNWR and KRITFC jointly developed in-season salmon assessment information that helped guide the decisions of the Federal In-Season Manager and KRITFC's In-Season Managers during the 2022 season.

Federal Special Actions Regarding Kuskokwim River Salmon

Five emergency special actions were issued by the Federal In-Season Manager (Manager) for the 2022 salmon season. During the June 1st to 11th front-end closure three 16-hour set gillnet opportunities were provided. After the front-end closure, there were four 12-hour set and drift net opportunities and four set net only opportunities resulting in 200 hours of fishing during the June and July fishing season. All fishing opportunities were limited to 6-inch or less gillnets to conserve larger Chinook Salmon, which are predominately female.

Emergency Special Action 3-KS-01-22

An emergency special action was issued closing Refuge waters, effective June 1, 2022, that read: "Unless re-opened by the Yukon Delta National Wildlife Refuge Manager, the following Federal public waters of the Kuskokwim River within and adjacent to the exterior boundaries of the Yukon Delta National Wildlife Refuge are closed to the harvest of all salmon by using gillnets by all users effective June 01, 2022". Non-salmon tributaries remained open 100 yards upstream of their confluence with the Kuskokwim to gear outlined in permanent regulation. Qualified users were allowed use of alternative gear types, within the Kuskokwim River mainstem. The alternative methods included: beach seines, dip nets, rod and reel, and fish wheels.

Also, in this special action, five fishing opportunities, [three 16 hour set net opportunities (on June 1, 4, and 8, 2022) and two 12-hour set, and drift gillnet opportunities (on June 12th and 16th) were announced].

Set net and drift-gill net regulations were like those established over the last 2-3 years (Table 1).

3-KS-02-22

On June 18, 2022, an opportunity for Federally qualified subsistence users to harvest Chinook Salmon with gillnets was announced for the Kuskokwim River main stem from a line downstream of Kalskag at the south edge of Uknavig slough to the YDNWR boundary (called the “Kalskag line”). This opportunity began on June 20, 2022, at 6:00 a.m. until subsequent emergency special action. This opportunity also included a set and drift gillnet opening within the rest of the Refuge waters on June 22th from 6 a.m. to 6 p.m. All net restrictions were the same as the first special action.

Opening fishing opportunities above the Kalskag line was unlikely to compromise attainment of the escapement goal: The in-season manager and KRITFC did not expect Chinook Salmon harvest from this area of the river to be any more than 2,000-5,000 Chinook Salmon based on historical harvest estimates during times of restrictions.

The data indicated that the 2022 season’s Chinook Salmon run was to be similar to 2021, which had a total run of 129,751 Chinook Salmon and an escapement of 101,000 fish. This indicated that a conservation concern continued to exist. However, the data also indicated, and ADF&G and the KRITFC agree, that limited openings could be provided without jeopardizing the viability of future Chinook salmon runs. Based on historical information, the drift gillnet opportunity announced was expected to generate a harvest of between 5,000 - 7,000 Chinook Salmon. In addition, ADF&G data indicated that the chum salmon run was in its early stages and a harvest opportunity on the 22nd would result in minimal chum harvest. Pursuant to Section 804 of ANILCA, these limited openings will be afforded only to Federally qualified subsistence users (Table 1).

3-KS-03-22

On June 27, 2022 the Manager announced two set gillnet opportunities on June 29th to 30th and July 3rd to the 4th. Each of the set gillnet opportunities were 36 hours long, gillnet mesh size limited to 6-inch, and net lengths restricted to 75 feet. USFWS, ADF&G, and the KRITFC agreed that limited opportunities to harvest sockeye salmon could be provided in areas along the shoreline where it was thought Chum and Chinook Salmon harvest could be minimized (Table 1).

3-KS-04-22

On June 27th, 2022 the Manager announced that the Aniak box, would remain closed to subsistence fishing with gillnets, fish wheels, beach seines, and dip nets until further notice. However, Subsistence fishing with rod and reel within the Aniak box would open to Federally-qualified subsistence users from June 29, 2022 until further notice. Bag limits were: 2 Chinook Salmon per day and 2 in possession, all chum salmon caught had to be returned to the water alive, and all other salmon may be retained.

The Aniak subsistence users have limited locations to use gill nets. In addition, the Aniak River and the Aniak Box Closed Area (directly in front of the town) has been completely closed to retention of Chinook Salmon during conservation periods in recent years. It was estimated that this opportunity could result in roughly 300 Chinook Salmon being harvested. This limited harvest will benefit local subsistence users without jeopardizing escapement goals.

3-KS-05-22

On July 7th, 2022 the Manager announced three fishing opportunities which included one drift and set gillnet opportunity on July 9th from 6am to 6pm and two set net only opportunities on July 10th and 16th, both from 6am to 10 pm.

The data indicated that there was limited concerns over Chinook due to the estimated 92% run passage past Bethel and Sonar counts showing high escapement estimates. However, the concern for chum salmon had now reached its peak and was guiding these decisions and harvest opportunities.

Chum salmon numbers were critically low in the Kuskokwim River at this point, with numbers tracking similarly to 2020 (a very low year). The YDNWR and KRITFC continued to support a conservative approach. An analysis of Bethel Sonar indicated that about 80% of the salmon composition in the lower Kuskokwim were sockeye salmon as of July 4th, 2022. The high number of sockeye salmon was the target of these announced opportunities. The harvest was further justified by a reduction in fishing pressure; relative to earlier in the salmon season and the closure periods (5-6 days per week) are far greater than the harvest periods (1 or 2 days of harvest each week). This conservation approach was to allow for higher levels of chum salmon escapement (Table 1).

Coho salmon management

On August 15th, ADF&G managers closed the Kuskokwim River mainstem and all salmon bearing tributaries to all methods and means for coho salmon. Based on available information on the date of the closure, the Bethel test fish, CPUE was its lowest in 23 years and the Kogrukuk and Kwethluk Rivers had record low coho salmon passages.

On August 16th, YDNWR and KRITFC met and there was consensus to continue monitoring the Coho salmon run but to not issue any federal restrictions. The decisions were based on:

1. ADF&G closure was more flexible to the local subsistence user. Users were allowed to fish in areas traditionally used for whitefish. Which was different than originally proposed by ADF&G.
2. The numbers for coho salmon were so low both parties were not able to justify announcing a subsistence opening during the closure dates.
3. Salmon management into September has led to the realization that managing the fishery from June 1st to September 30th may become the new normal on the Kuskokwim River. YDNWR needed more staff and resources to effectively manage these salmon species for this new duration in time.

In-Season Subsistence Fishing Harvest Assessment

Federal subsistence fishing opportunities resulted in an estimated harvest of 57,790 salmon from 996 interviews from the portion of Refuge waters where KRITFC and Orutsarmiut Native Council (ONC) conducted in-season harvest monitoring surveys.

Most of the estimated harvest for the 2022 salmon season was from Chinook Salmon (51%; 29,300), followed by sockeye salmon (43%; 24,840), and chum salmon (6%; 3,650) (Table 1). These harvest estimates represent only a portion of subsistence salmon harvests from federal waters. These harvest estimates do not include salmon harvests from the non-salmon spawning tributaries within Refuge waters (e.g., Gweek, Johnson, Kailik, and other rivers), salmon harvests in state waters, nor harvests taken throughout the watershed by other non-gillnet gear and methods (i.e. rod and reel, dipnet).

Preliminary Post Season Summary

At the time of this document's writing, no preliminary escapement of Chinook Salmon has been made. We will go into each species escapement passed the Kuskokwim river sonar, Bethel Test Fish and each species tributary specific escapement goal.

Chinook Salmon

In 2022, the final CPUE for Chinook Salmon at the end of operations for Bethel Test Fish, was 504. The 2020 and 2021 CPUE at the end of the season were at 487 and 532, respectively. End of season estimated passage at the Bethel sonar for the 2022 season was 145,000 (115,00 – 175,000) Chinook Salmon.

There are three weir based escapement goals for Chinook Salmon on the Kuskokwim river; The George (1800 - 3300), Kogruklu (4800 - 8800), and the Kwethluk Rivers (4100 - 7500). At the end of each projects end date, the George River had 4,318, Kogruklu had 5,269, and Kwethluk had 6,248 Chinook salmon counted, achieving all three escapement goals for these rivers.

Chum Salmon

At the end of the 2022 season, the final CPUE for chum salmon was 2,193. The 2020 and 2021 CPUE at the end of season were at 1,442 and 327, respectively. The end of season estimated passage at the Bethel sonar was 103,100 (75,000 – 131,300) Chum Salmon.

There is one weir-based escapement goal for chum salmon on the Kuskokwim River; The Kogruklu river with an escapement goal of 15,000 - 49,000. The end of season count on the Kogruklu river was 11,458 chum, which did not achieve its minimum escapement goal.

Sockeye Salmon

The final CPUE at the Bethel test fish for 2022 sockeye salmon was 1,372. The 2020 and 2021 CPUE at the end of the season were at 1,060 and 1,694, respectively. The end of season estimated passage at the Bethel sonar was 606,400 (549,000 – 662,900) sockeye salmon.

There is one weir-based escapement goal for sockeye salmon on the Kuskokwim River; the

Kogruklu River with an escapement of 4,400 to 17,000. The end of season count on the Kogruklu river was 9,566 Sockeye salmon, achieving its goal.

Coho Salmon

The final CPUE at the Bethel test fish for 2022 coho salmon was 1,281. The 2020 and 2021 CPUE at the end of the season were at 1,822 and 1,696, respectively. The end of season estimated passage at the Bethel sonar was 157,500 (123,300 – 191,700) Coho salmon.

There are two weir-based escapement goals for Coho salmon on the Kuskokwim River; the Kogruklu (13,000 – 28,000) and Kwethluk River (> 19,000). At the end of season, the Kogruklu weir crew counted 706 Coho but there were issues with water levels so estimated counts will be provided later. On the Kwethluk river the end season count was 6,291. At this point, none of the escapement goals will be met for Coho in 2022.

In Season Manager Summary

The 2022 season was similar in many ways to the 2021 season, except for coho salmon. As has been documented with the summary information provided, salmon numbers for all species other than sockeye salmon were less than desirable. The true disappointment for salmon this year was the significantly lower coho salmon numbers on the Kuskokwim. The low coho numbers could have been anticipated, but most fisheries biologists seemed to be surprised by their crash.

The YDNWR also faced challenges this season that were not expected. The Refuge staff making up the salmon management team are not formal fisheries biologists but rely on their hands-on experience with fishing on the Kuskokwim. This year the team was without the Fisheries Biologist because that position was vacant. To garner help with fish data analysis we were given help from a Fisheries Division biometrician named Catherine Bradley. Catherine worked closely with KRITFC staff and made great contributions to our data analysis during in-season management.

The KRITFC had their own surprises and staffing challenges this season. Executive Director Mary Peltola stepped down to campaign for a vacant US Representative's seat. As a result, Kevin Whitworth stepped-in to serve as Interim-Executive Director. This transition occurred just weeks before the busy salmon season, but Kevin and the KRITFC staff made the adjustment quickly, and by June the Refuge and KRITFC staff were back in a smooth routine.

Despite these numerous challenges during the salmon season, the 2022 salmon situation was handled as well as could be expected. Local residents fishing during 2022 were overwhelmingly happy with this year's harvest opportunities during the Chinook Salmon run. The June 22nd opportunity was especially satisfying for lower river fishers who made up most of the 14,000 estimated harvest. This record harvest of Chinook was not a goal for the in-season managers, but the successful harvest took a lot of pressure off managers and allowed subsistence users a chance to focus on food preparation after the large number was caught. The sockeye salmon run also took some pressure off the chum salmon run, which was once-again

precariously low. Managers with the YDNWR and KRITFC devised a plan to allow for some fishing that targeted the plentiful sockeye, but partially protected Chinook and Chum Salmon. The plan was only a partial success and difficult planning will continue to take place in future years to look for ways to allow for gill net fishing while protecting other species.

As mentioned above, the 2022 coho salmon run was a shock to local subsistence users and to fisheries managers. This season marked a milestone that required YDNWR staff to remain engaged in the salmon fishery through the end of August. Although federal restrictions were not implemented, a great deal of planning and conversation took place with the KRITFC and ADF&G to ensure coho salmon were adequately protected. The challenges that came up this season were related to the timing of the run and the lack of biological goals for the species. Coho salmon have been taken for granted in previous years- largely due to their reliably strong numbers that even allowed for a routine harvest of up to 400,000 fish annually. Recently, the coho run has not been as reliable, and there's more concern for their preservation. In fact, ADF&G has been running their fisheries assessment projects later into the Fall (until September 24th this season) for that very reason. The fact that coho salmon run late into the Fall and Winter are a challenge for fisheries managers, and one that can't be controlled. However, a challenge we can control is the improvement of both tributary and drainage-wide goals that reflect an ecosystem approach to conservation. The current tributary goals for the Kogrukluuk and the Kwethluk Rivers are vital, but additional biological goals should be set in order for fisheries managers to have solid benchmarks to aim for during in-season management.

Table 1. 2022 Kuskokwim River Drainage Federal Subsistence Salmon Harvest Summary based on in-season harvest assessments. These estimates are for harvest and effort between the communities of Tuntutuliak and Tuluksak and do not include harvest from other means and methods (e.g. dipnets, rod and reel) or from areas other than the mainstem (e.g. non-salmon spawning tributaries).

Federal Opening	Length of Opening (hours)	Effort (# of Drift Trips)	Effort (# of Setnet Trips)	Chinook Salmon	Chum Salmon	Sockeye Salmon	All Salmon
6/12/2022	12	457	22	4,700	60	360	5,120
6/16/2022	12	473	32	7,680	160	1,920	9,760
6/22/2022	12	572	17	14,000	950	13,720	28,670
7/9/22	12	147	NA	480	1,730	3,730	5,940
Drift Net Opportunity Totals	48	1649	71	26,860	2900	19,730	49,490
6/01/2022	16	0	30	30	0	0	30
6/04/2022	16	0	75	80	0	0	80
6/8/2022	16	0	78	120	0	20	140
6/29-30/22	36	0	146	1,550	450	3,930	5,930
7/3-4 / 22*	36	0	69	660	300	1,160	2,120
7/10/22*	16	NA	NA	NA	NA	NA	NA
7/16/22*	16	NA	NA	NA	NA	NA	NA
Set Net Opportunity Totals	152	0	398	2,440	750	5,110	8,300
Grand Total	200	1649	469	29,300	3,650	24,840	57,790

* Note: Harvest Estimates were not conducted on July 4, 10, 16, 2022.



KUSKOKWIM RIVER

INTER-TRIBAL FISH COMMISSION

OUR RIVER, OUR PEOPLE, OUR FISH

P.O. Box 190 Bethel, AK 99559-0190 | (907) 545-7388 | info@kritfc.org | kuskosalmon.org

Update to the Regional Advisory Councils Fall 2022

Dear RAC Members,

The Kuskokwim River Inter-Tribal Fish Commission (KRITFC) represents the 33 Tribes of the Kuskokwim River drainage in fisheries management, research, and monitoring. Since 2015, we have been guided by our Yupik and Athabaskan knowledge and values, as well as the best available Western science, as we support the health of our salmon and our people.

KRITFC provides the following update on the 2022 salmon season, highlighting our management, research and monitoring, and advocacy efforts.

KRITFC Leadership and Staff

Executive Council (voted in April 2022):

- Unit 1 Representative: Betty Magnuson
- Unit 2 Representative: Jonathan Samuelson (Vice-Chair)
- Unit 3 Representative: Gerald Kameroff
- Unit 4 Representative: Mike Williams Sr. (Chair)
- Unit 5 Representative: Avery Hoffman (Secretary)
- Unit 6 Representative: Ralph Nelson
- Unit 7 Representative: Adolph Lupie

Staff:

- Kevin Whitworth, Executive Director. *Kevin was appointed to this position after the departure of former director Mary Peltola in April 2022.*
- Terese Schomogyi, Programs Manager
- Andrew Magel, Jesuit/AmeriCorps Volunteer

–Elder Advisors: Robert Lekander, James Nicori

2022 Collaborative Salmon Management

- The 2022 season was the **seventh season** KRITFC **collaboratively managed** the Kuskokwim salmon fishery with U.S. Fish and Wildlife Service (USFWS) at Yukon Delta National Wildlife Refuge (YDNWR). KRITFC is grateful for the **strong partnership** built with the YDNWR fisheries team.
- KRITFC Commissioners elected **5 In-Season Managers** to manage the fishery with YDNWR. They are Betty Magnuson (McGrath – Upriver), Megan Leary (Napaimute – Middle River), Mike Williams Sr. (Akiak – Lower River), Avery Hoffman (Bethel – Lower River), and Paul Cleveland (Quinhagak – Tundra & Coast).
- Before the season began, we coordinated on our **KRITFC-USFWS Joint Salmon Management and Harvest Strategy** (available at <https://www.kuskosalmon.org/s/Draft->

TELIDA | NIKOLAI | TAKOTNA | MCGRATH | LIME VILLAGE | STONY RIVER | SLEETMUTE | RED DEVIL
GEORGETOWN | CROOKED CREEK | NAIMUTE | CHUATHBALUK | ANIAK | UPPER KALSKAG | LOWER KALSKAG | TULUKSAK
AKIAK | AKIACHAK | KWETHLUK | BETHEL | OSCARVILLE | NAPASKIAK | NAPAKIAK | KASIGLUK | ATMAUTLUAK
NUNAPITCHUK | TUNTUTULIAK | EEK | QUINHAGAK | KONGIGANAK | KWIGILLINGOK | KIPNUK | CHEFORNAK

[2022-Management-Strategy-4-15-22.pdf](#)) and co-hosted a **Kuskokwim River Listening Session** on April 21.

- KRITFC and YDNWR met regularly and often throughout the season (May–August 2022). On June 1, 2022, YDNWR assumed federal management of the Kuskokwim River through the Federal Subsistence Board’s delegation of authority to the Refuge Manager. Federal management was implemented and closed lower river subsistence gillnet fishing for the conservation of Chinook and chum salmon. Federal action to protect a weak coho salmon run was discussed but not pursued. Federal management was relinquished on July 21, 2022.
- During gillnet closures KRITFC and YDNWR provided **11 drift and/or set gillnet opportunities for federally qualified subsistence users** from June 1 to July 16. During these opportunities, approximately **29,300 Chinook salmon, 3,650 chum salmon, and 24,840 sockeye salmon** were harvested in the Federal public waters of the lower river. There are no in-season estimates for coho salmon harvests. Numbers are still preliminary, but it is likely that we reached our rebuilding escapement target of 110,000 Chinook salmon.
- KRITFC does not have a co-management agreement with Alaska Department of Fish & Game (ADF&G) but has a voting seat on the Kuskokwim River Salmon Management Working Group.

2022 Salmon Research and Monitoring Projects

- The **Kwethluk River Smolt Outmigration (Screw Trap) project** counts juvenile salmon smolt as they migrate out of the Kwethluk River and into the ocean and compares these to numbers of adult salmon returning to the Kwethluk to spawn. KRITFC partnered with USFWS and Organized Village of Kwethluk (OVK) to operate the screw trap from April 18–June 20. We hired 6 local seasonal employees (5 from Kwethluk, 1 from McGrath) to run this project. This project is funded by the Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative (AYK SSI).
- The **Kwethluk River weir** counts adult salmon migrating into the Kwethluk to spawn. KRITFC partnered with USFWS and OVK to operate the weir beginning in May and ending September 10. We hired 4 local season employees to run this project, all from Kwethluk. This project is funded by the Fisheries Resource Monitoring Program (FRMP).
- The **Takotna River weir** is the only long-term headwaters stock assessment program, and its data is used to help calculate the annual Chinook salmon run reconstruction. KRITFC partnered with Takotna Tribal Council and ADF&G to operate the weir between June 15–August 30. We hired 7 local season employees (6 from Takotna, 1 from McGrath) to run this project. This project is funded by FRMP.
- The **Community Based Harvest Monitoring (CBHM) program** provides near real-time in-season subsistence harvest data from local fishermen to federal managers for their decision-making. KRITFC partners with lower river communities, Orutsarmiut Native Council (ONC), and YDNWR to create in-season harvest estimates with these data. In 2022, we hired 10 local harvest monitors in 8 lower river villages to survey 10 subsistence fishing opportunities. They collected 574 total interviews between Eek and Tuluksak. This project is funded by KRITFC and FRMP.

- The **Environmental DNA (eDNA) project** filters water samples from tributaries to collect salmon DNA and estimate species abundance. KRITFC partnered with USFWS and UAF to pilot this project at the Kwethluk weir from July 20–September 10. We hired 4 local employees, all from Kwethluk, to run this project and provide ground-breaking research on the Kuskokwim. This project has applied for funding from AYK SSI.

Advocacy Work

- KRITFC staff and Chair Mike Williams Sr. attended, provided written comments, and testified at the June 2022 meeting of the **North Pacific Fishery Management Council (NPFMC)**, during which salmon bycatch and research were on the agenda. NPFMC did not take any concrete action to limit Chinook or chum salmon bycatch in the Bering Sea. We are continuing to track Bering Sea bycatch and advocate for 0 salmon bycatch and voting Tribal seats at NPFMC.
- KRITFC submitted 3 proposals to the **Board of Fish (BOF)**. Two propose for ADFG to be prevented from making any management decisions during federal management on the Kuskokwim, as per ANILCA Title VIII. One proposes for Area M/Alaska Peninsula commercial fisheries to be limited during June, as regulations were written from 2001-2004. We are continuing to track Area M interception of AYK-bound salmon and advocate for limited commercial fishing during the June South Alaska Peninsula fishery.
- On August 29, KRITFC Executive Director Kevin Whitworth participated in a **roundtable with Governor Dunleavy and Commissioner Vincent-Lang**. He spoke to the collapse of Kuskokwim and Western Alaska salmon fisheries and the problem of Area M intercept. We and other Tribal entities at that meeting are pushing for future conversations with the State and Governor.
- The **Arctic-Yukon-Kuskokwim Tribal Consortium (AYK TC)** has existed since 2002 as a governing body of the AYK Sustainable Salmon Initiative (AYK SSI). This year, KRITFC and Yukon River Inter-Tribal Fish Commission (YRITFC) were invited to join Association of Village Council Presidents (AVCP), Tanana Chiefs Conference (TCC), and Kawerak Inc. on the AYK TC. Our five organizations represent 118 Tribes in Western and Interior Alaska in the rebuilding of our salmon populations. We actively and regularly meet with AYK TC to advocate for our fish and communities and pursue funding for our regions.

2022 Kuskokwim River Salmon Situation Report

At the time of this writing, KRITFC is finalizing our 2022 Kuskokwim River Salmon Situation Report. We intend to have this report ready to deliver to the RAC members at your meeting. This report covers:

- **Multi-species salmon collapse on the Kuskokwim:** Chinook, chum, and coho salmon are all declining. Chum salmon remain catastrophically low, and 2022 is the third year of an alarming steep decline of coho salmon. With the coho salmon decline, it becomes clear that Kuskokwim communities are facing a multi-species salmon collapse.
- **Subsistence users' sacrifices:** To meet conservation goals, subsistence users once again sacrificed their harvest needs. Subsistence communities met only one-third of their long-term Chinook salmon subsistence needs, and much less for chum and coho salmon.

- **No backup species:** Sockeye salmon returns remain strong, but it is not possible to harvest them in large numbers without impacting declined Chinook and chum salmon populations. Subsistence users have no fallback species to rely upon to fill their freezers for winter.
- **Bering Sea-Aleutian Island salmon bycatch:** While Chinook salmon bycatch by the Bering Sea-Aleutian Island commercial pollock fishery has declined, chum salmon bycatch remains high. There are no chum salmon bycatch caps in place.
- **Area M salmon intercept:** Massive intercept catches of chum salmon occurred in the South Alaska Peninsula, or Area M, June commercial fisheries in both 2021 and 2022. The most recent and rigorous genetic analysis of commercial salmon samples in Area M showed that Coastal Western Alaska stocks, bound for the Kuskokwim, Yukon, and Unalakleet rivers, comprise an average of 57% of the chum salmon harvested.

Once finalized, this situation report will also be shared with the NPFMC, National Oceanic and Atmospheric Administration (NOAA), the Alaska Board of Fisheries, AVCP, TCC, other Tribal entities, and our Kuskokwim Tribes.

Please contact Kevin Whitworth, Executive Director, with any questions: (907) 574-0388 or kevinwhitworth@kritfc.org.

Quyana, Tsen'ahn, Thank you,



Kevin Whitworth
Executive Director, KRITFC

NPFMC Salmon Reports from June 2022 Council meeting

Alaska Bycatch Review Task Force (ABRT)
Western Alaska Salmon Subcommittee
July 8, 2022



Diana L. Stram, Ph.D.
Senior Scientist, North Pacific Fishery Management Council



- 1) An updated bycatch impact (AEQ) analysis which includes current genetic stock identification information and an updated age/length composition for Chinook salmon along with estimates of how many Chinook salmon taken as bycatch in the Bering Sea pollock fishery would have returned to Western Alaska Chinook salmon stock groupings. The analysis should include a PSC harvest rate analysis and an estimate of the Chinook salmon bycatch impacts to each specific stock grouping at the current cap levels and at actual bycatch levels in recent years. The Council also requests that the report include recommendations to evaluate impacts of chum salmon bycatch in the pollock fishery with currently available data.
- 2) A stock status update of Western Alaska Chinook and chum salmon stocks.
- In addition, the Council requests staff write a letter to the Secretary of State to request help to identify levels and stock composition of bycatch of salmon in waters outside of the jurisdiction of the United States. The Council requests staff write a letter in support of recent requests to the Secretary of Commerce for increased and dedicated funding for salmon research, observation, and monitoring, including on the lifecycle of salmon species in the freshwater, nearshore, and marine environments, and the effects that environmental changes are having on salmon throughout their lifecycle.

- Salmon stock status and research updates
 - Stock status update for WAK Chinook and chum
 - AFSC overview of salmon research and mandates
 - ADF&G overview of ongoing research and plans
- BSAI and GOA salmon genetics reports
 - BSAI Chum salmon bycatch genetics from 2020-2021
 - Chinook salmon genetics 2020 (BSAI and GOA)
- Update on ongoing genetics works and plans
 - AFSC progress and plans
- Bering Sea Chinook Adult Equivalency and Impact rate report; staff recommendation for assessing chum impacts
 - Update on 2015/2018 report; changes noted in age/length updates and maturity estimates
 - Staff feedback on assessing chum bycatch impacts
- Salmon Excluder final report
- Reports from the IPAs (3)
- SeaShare update

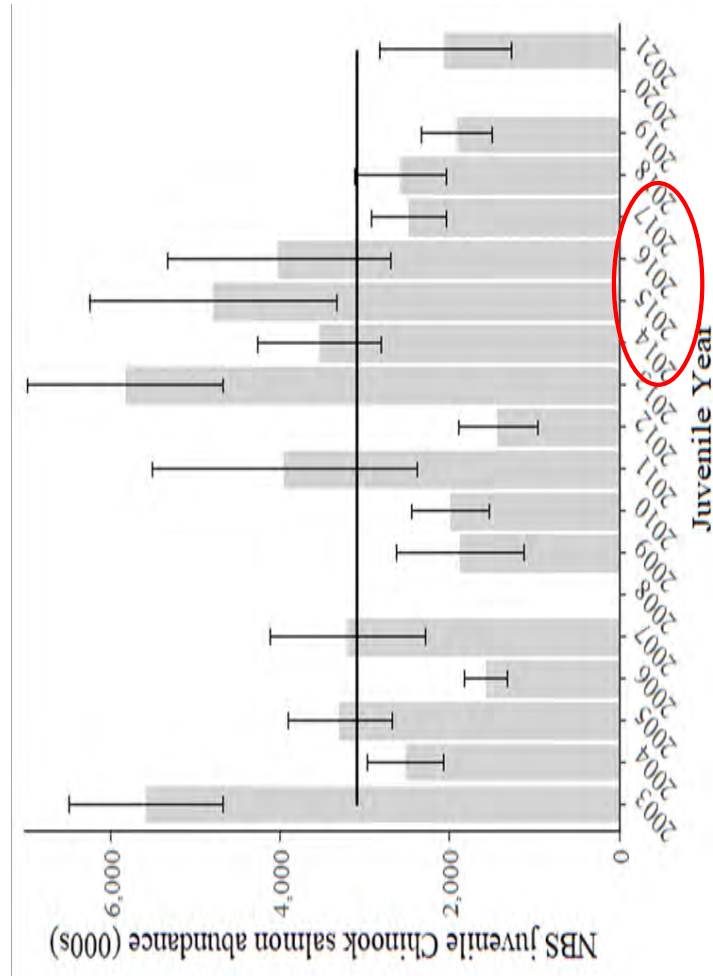


Presentations to the Council

Research updates:
NOAA and ADF&G



Juvenile Chinook salmon abundance

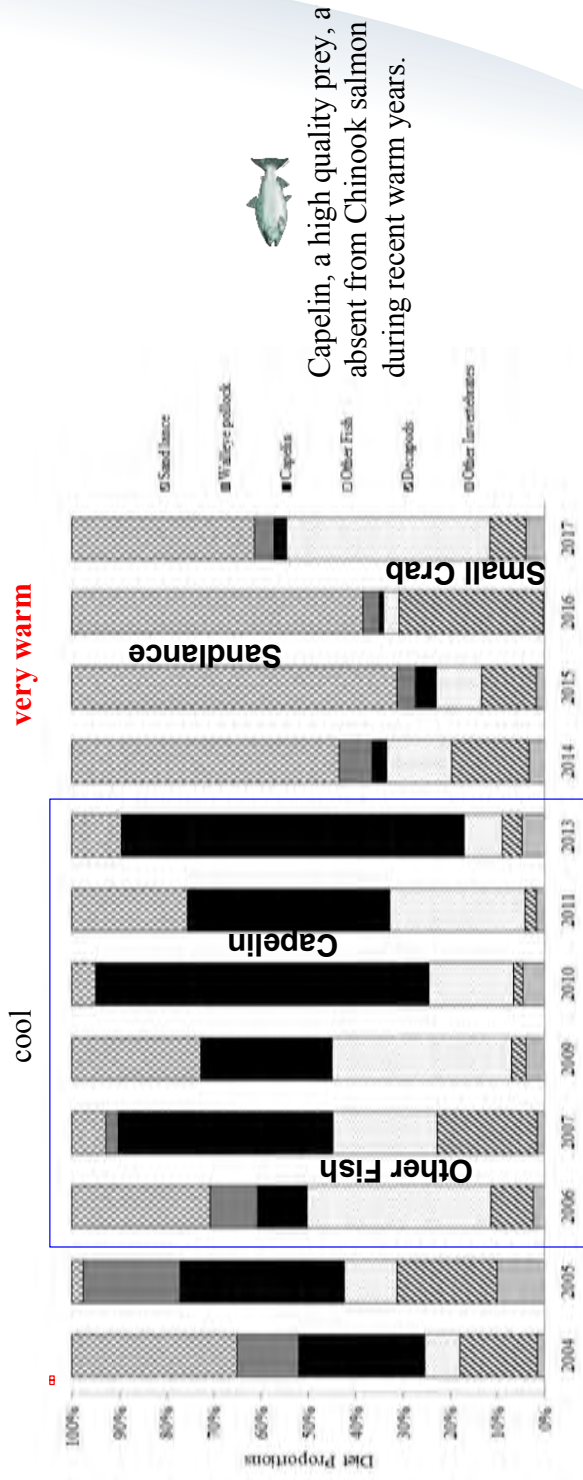


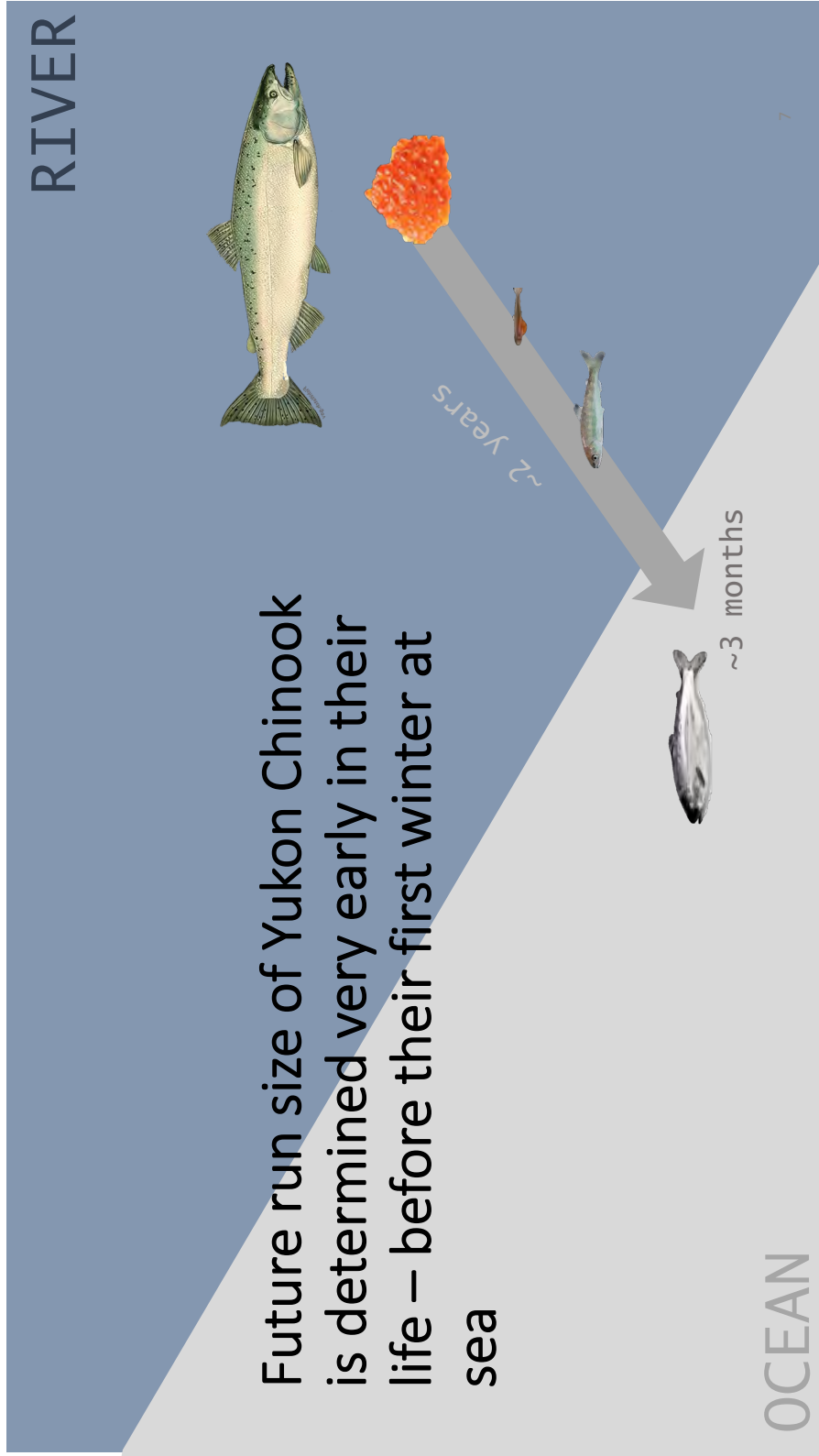
Abundance of Juvenile Chinook has been below average since 2017

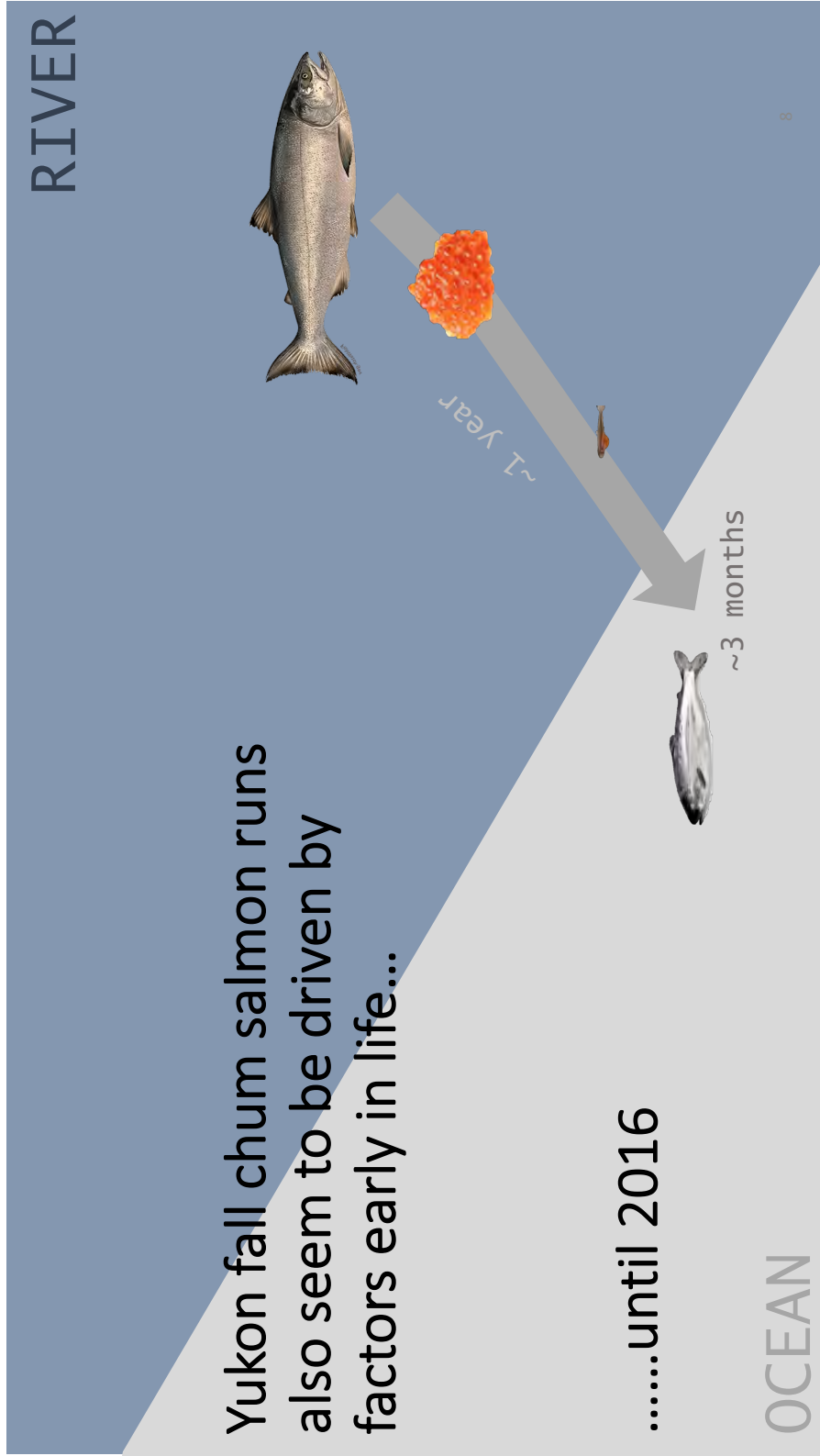
Smaller than average size during recent warm years

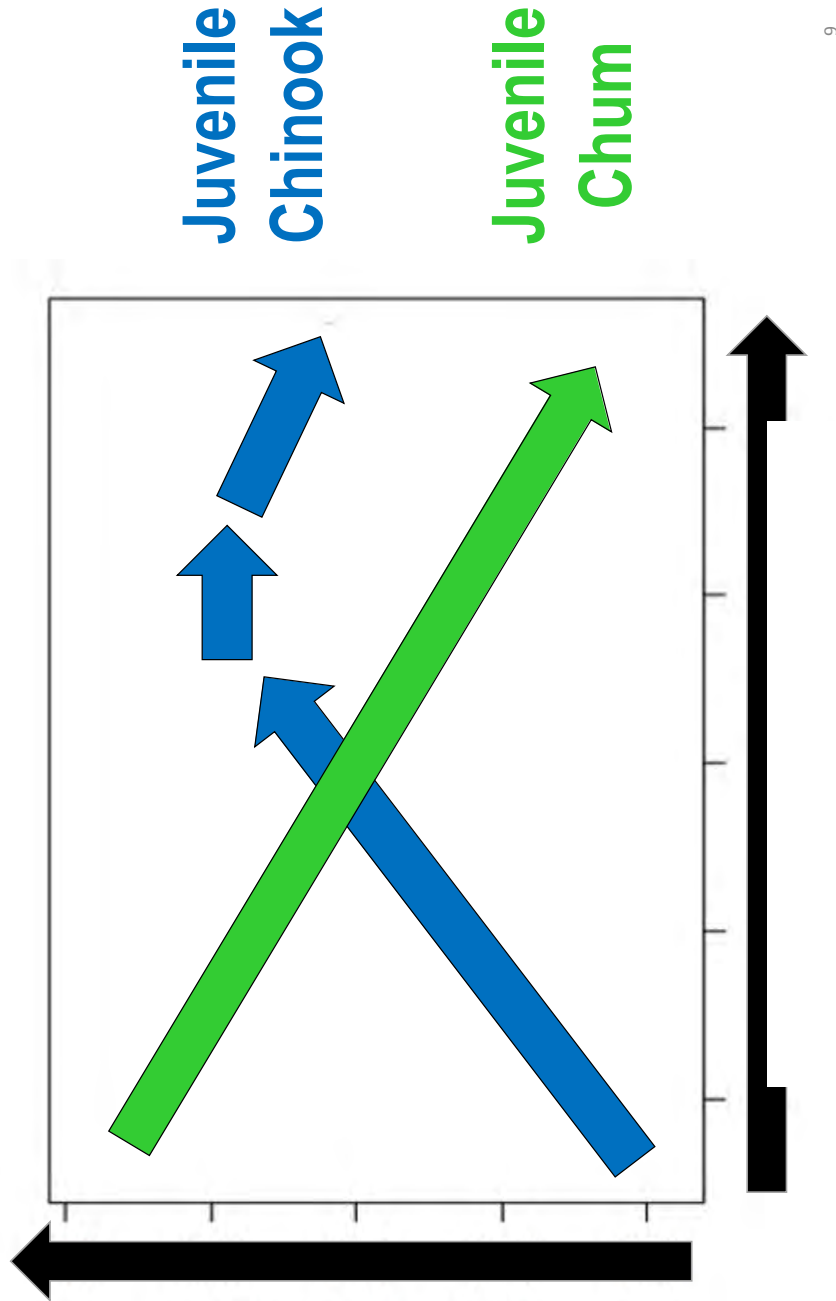


Juvenile Chinook Salmon Diet









9

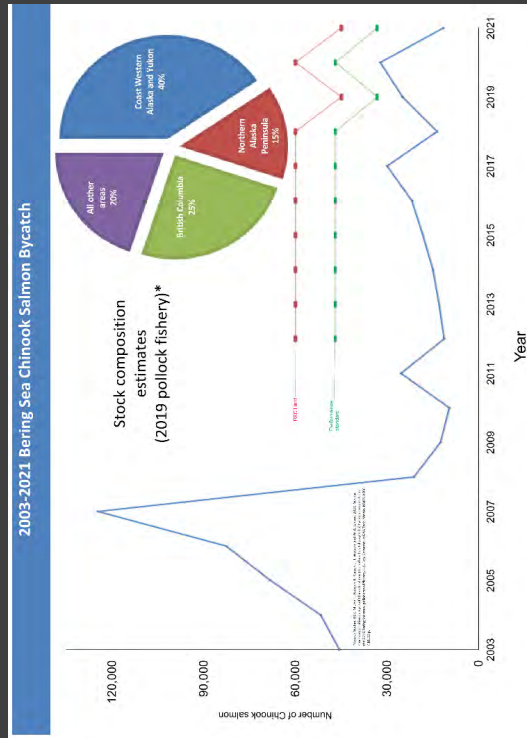




Genetics Summary

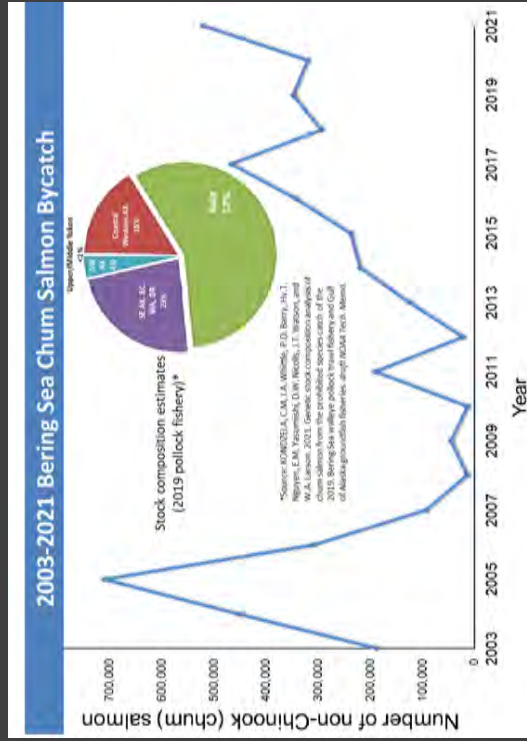


Trends and genetic breakouts



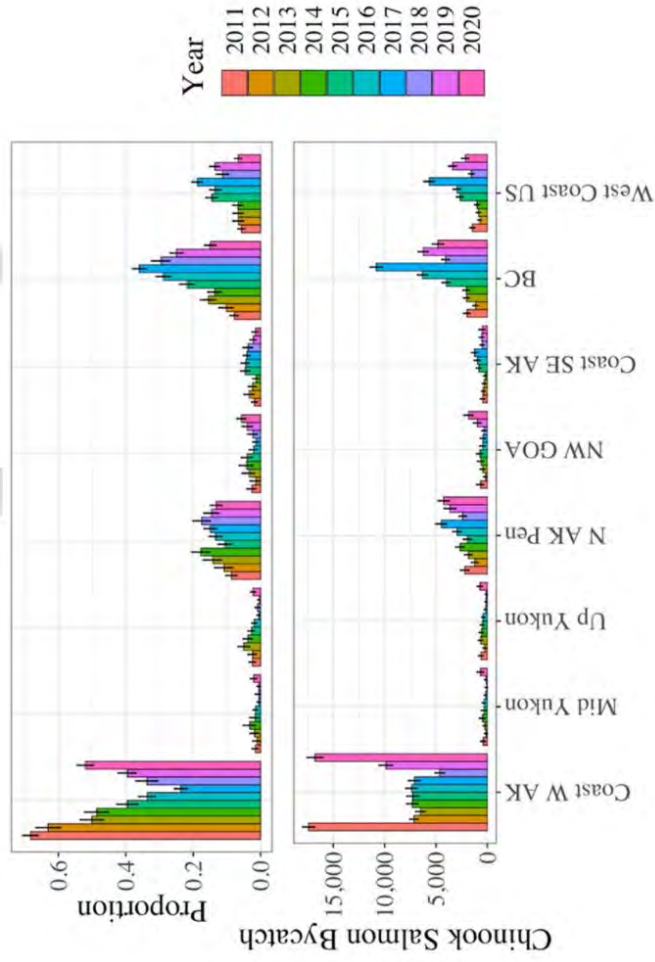
Chinook 2021: 13,783*

*from NIMFS from Catch Accounting System database 12/21/2021

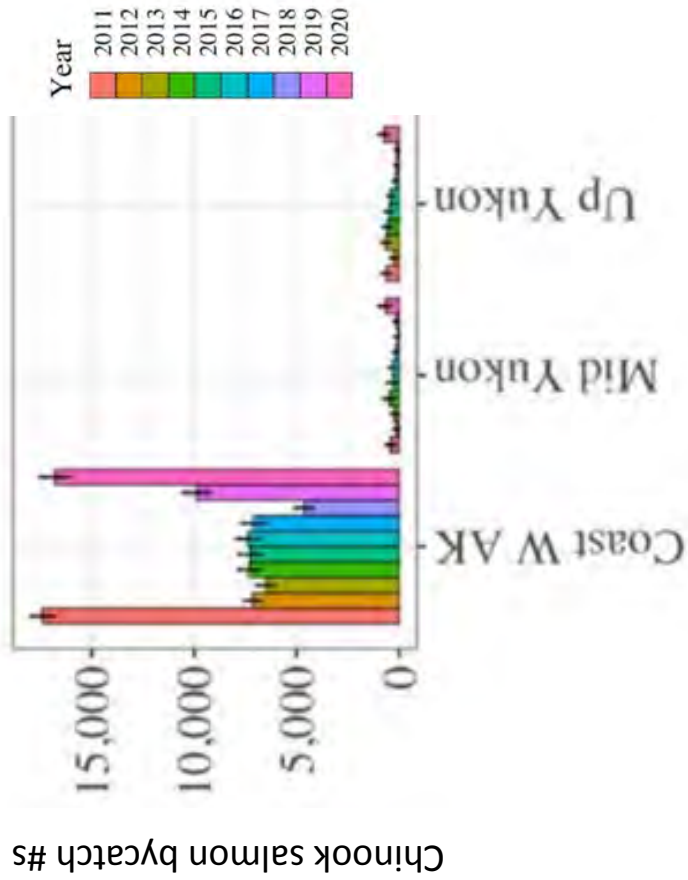


Chum 2021: 530,626*

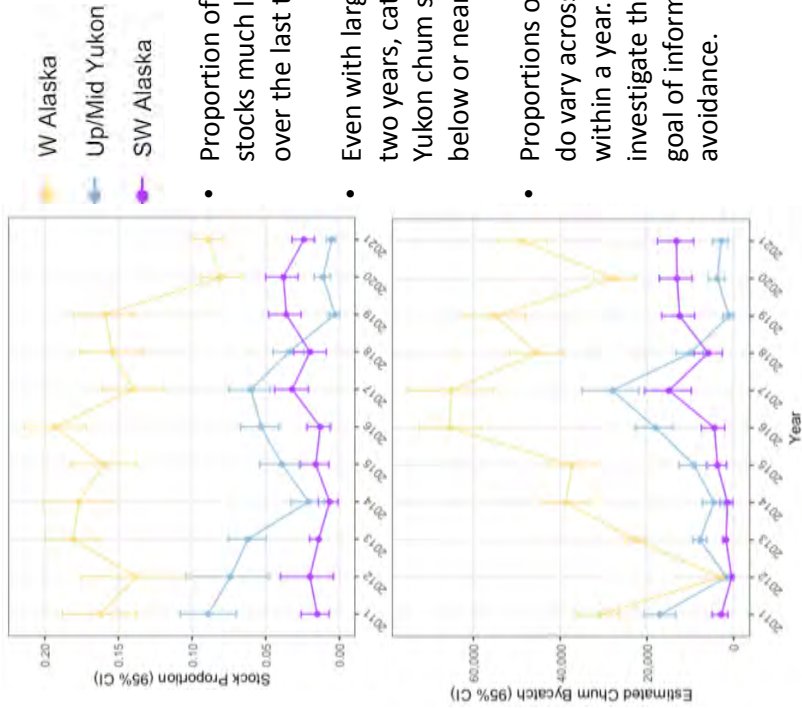
Major genetic takeaways: BSAI Chinook salmon



Spike in WAK catches, southern stocks decreasing after 2017 peak



Major takeaways: chum salmon



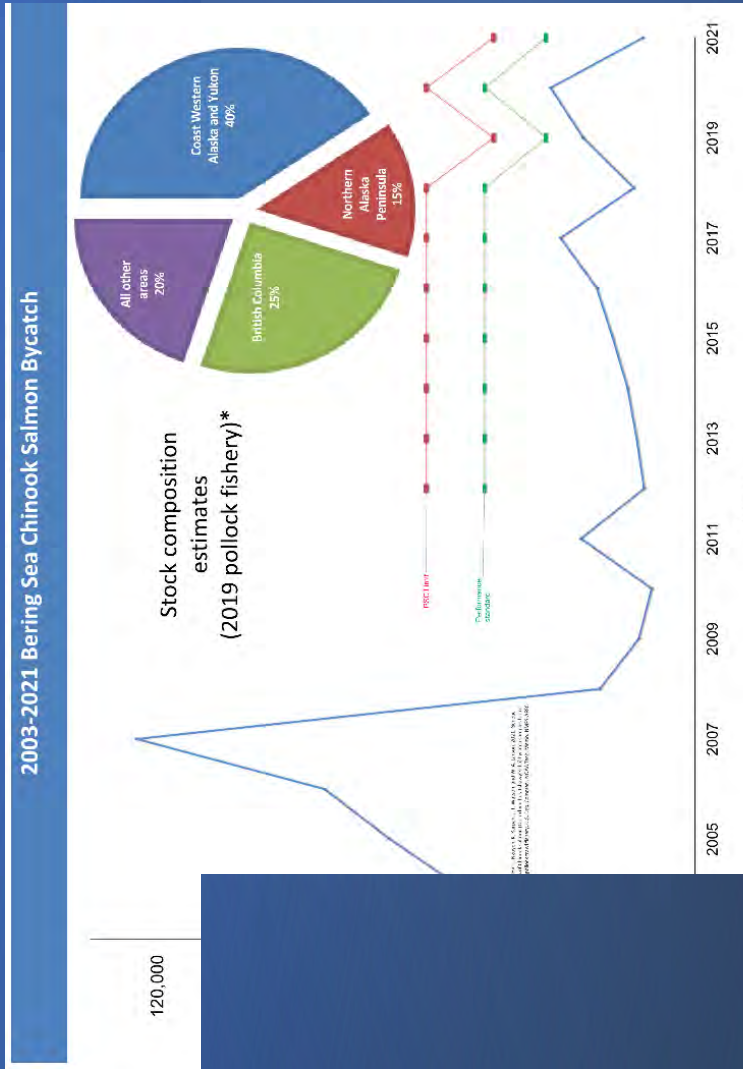
- Proportion of WAK and Yukon stocks much lower than average over the last two years
- Even with large bycatch in the last two years, catches of WAK and Yukon chum salmon have been below or near average
- Proportions of WAK and Yukon fish do vary across space and time within a year. We are planning to investigate this further with the goal of informing stock-specific avoidance.



Adult Equivalency
(AEQ) and impact rate
update BSAI Chinook

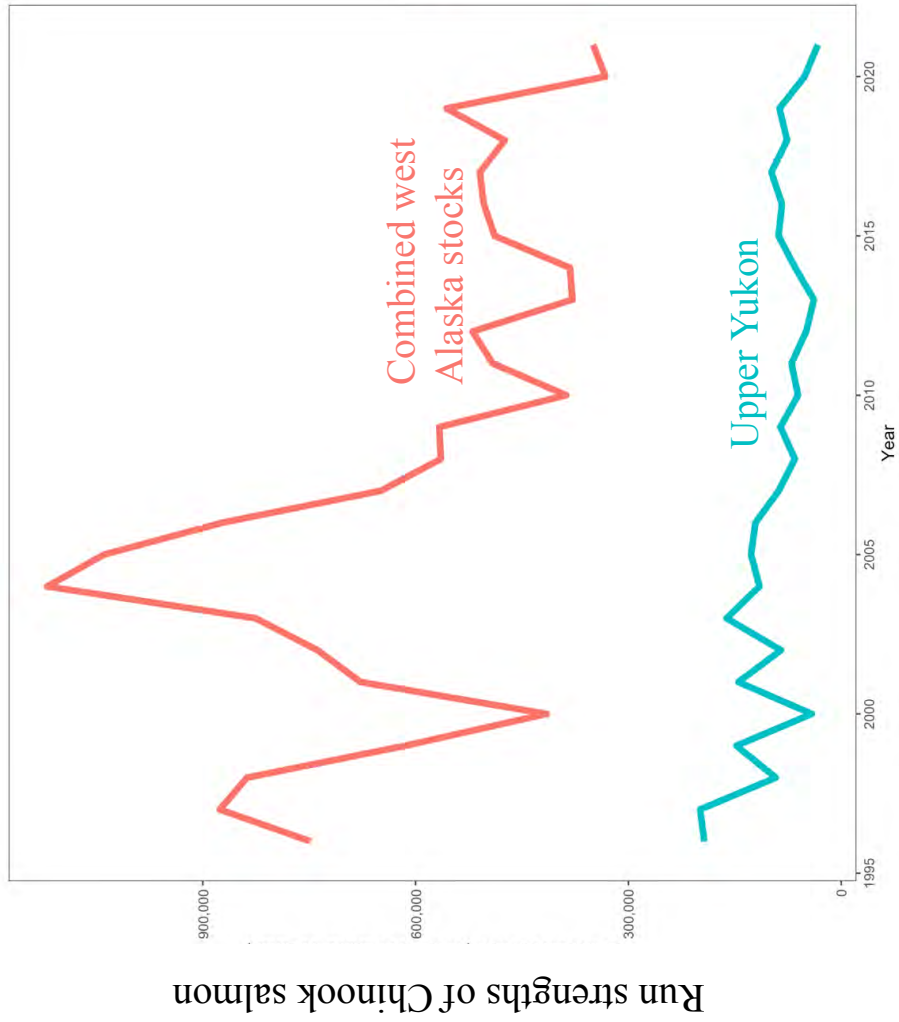
How do we estimate how many bycaught salmon would have back to a river system

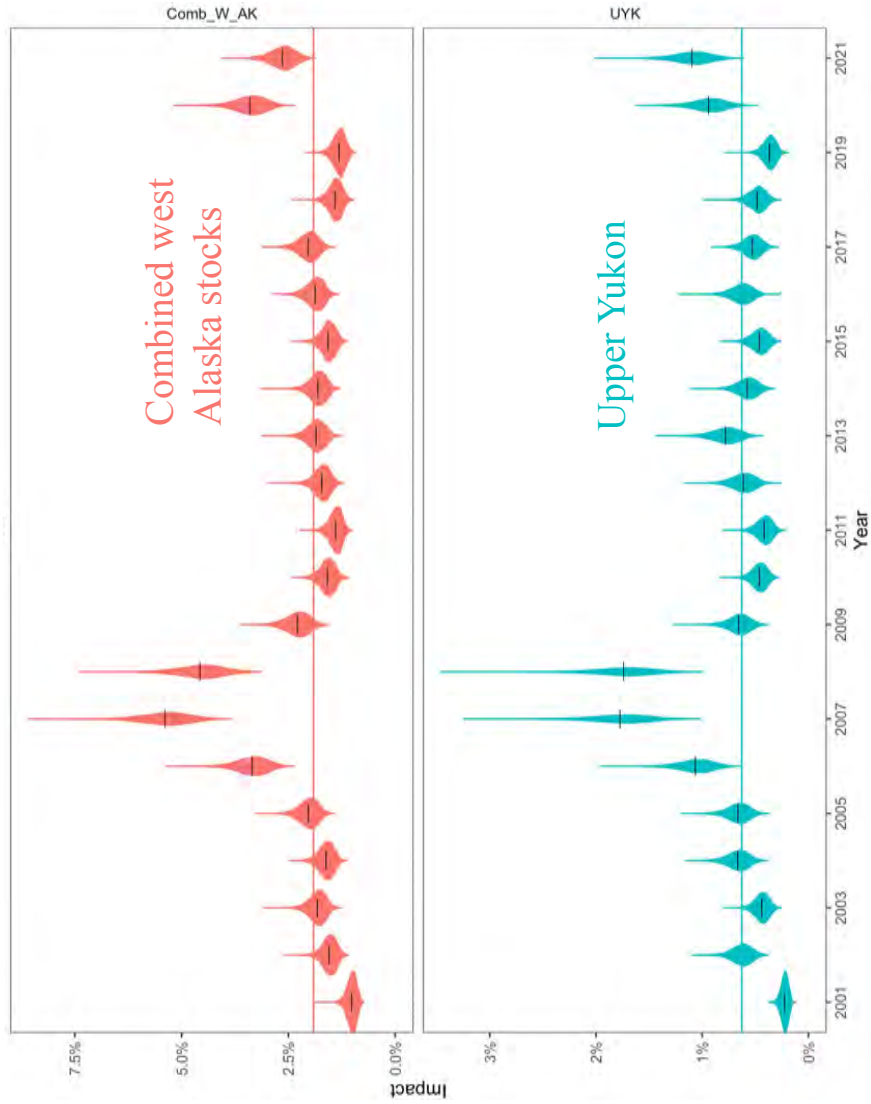
- To estimate Adult Equivalent (AEQ)
 - fish that would have returned to some river that year if they had not died from bycatch
- Information needs:
 - Number of salmon bycaught
 - from observer program
 - Age of fish
 - from observer data on length
 - using Age-Length key (updated 2022)
 - Region of origin
 - limited to Coastal West Alaska and Upper Yukon for WAK
 - Estimated maturity by year
 - We do this in aggregate across multiple WAK rivers
- To estimate impact rate the % of the total run
 - the sum of the rivers in a specific genetic grouping (e.g. CWAK or Upper Yukon) that would have returned to that genetic area had the fish not been caught as bycatch
- Information needs:
 - AEQ for that grouping
 - Run size estimate
 - for all applicable rivers in that grouping
 - E.g. only Upper Yukon has a single run size estimate, for CWAK it is sum across all western Alaska Rivers from Norton Sound to the Nushagak



2022 (A season) 5,184

Run sizes



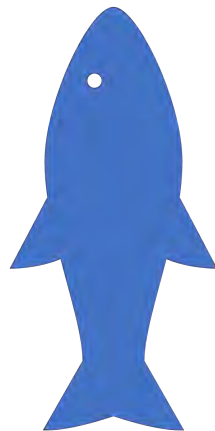


$$\text{Impact estimates} = \frac{\text{AEQ}}{(\text{run size} + \text{AEQ})}$$

Summary

- Impact rates which has averaged 1.9% since 2011 for the combined coastal western Alaska stocks
 - 0.6% for the Upper Yukon
- The rate for the western Alaska stocks increased in 2020 to an estimate of 3.4% but dropped in 2021 to 2.6%
 - 0.9% and 1.1% for the Upper Yukon
- The increase is due to lower returns overall with the biggest decrease for Combined western Alaska from the Nushagak River

Chum salmon
impact
recommendations



AEQ for chum

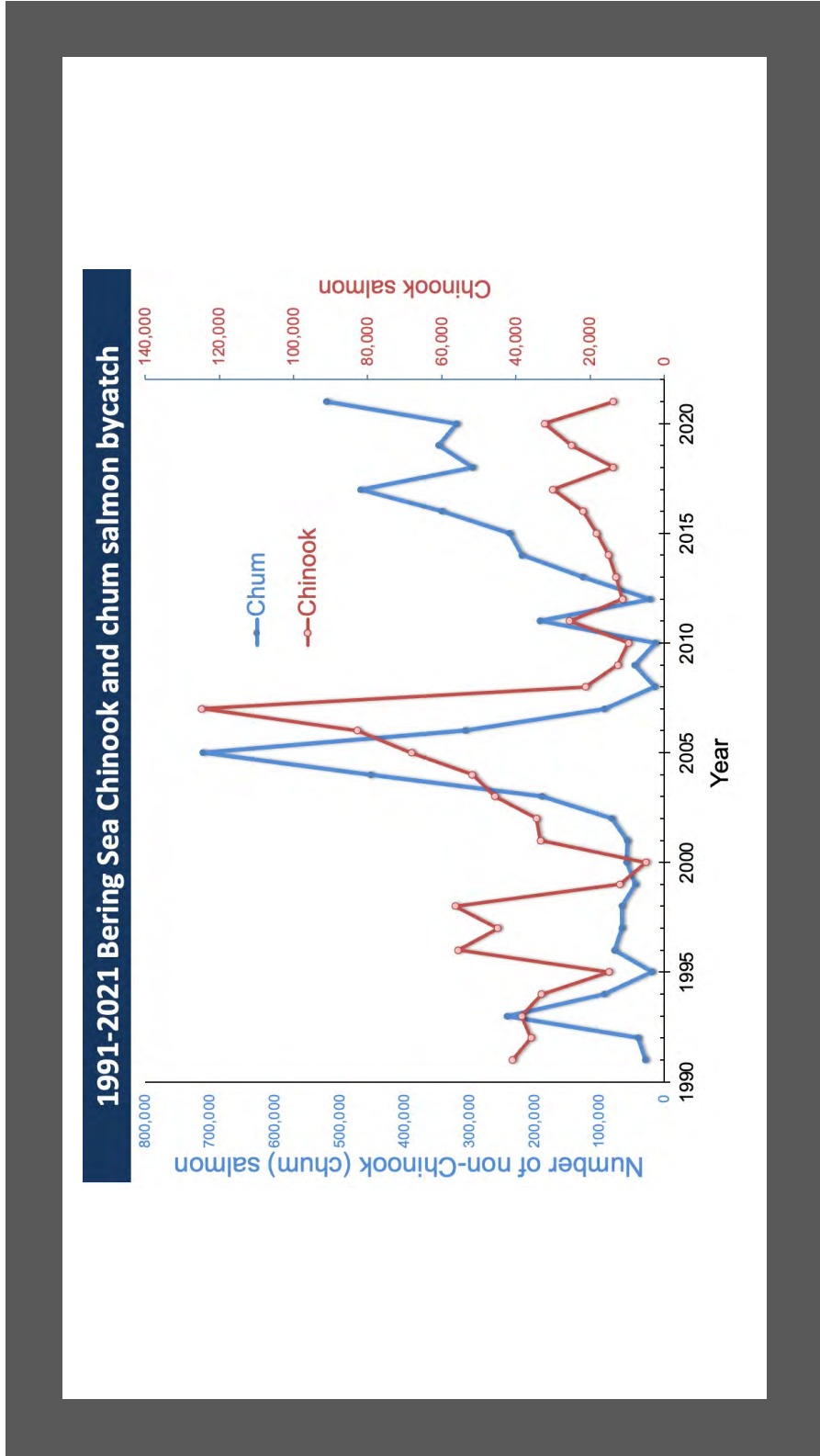
- a coarse estimate of an AEQ but several assumptions would need to be made where data are not available (i.e., maturity and natural mortality rate).

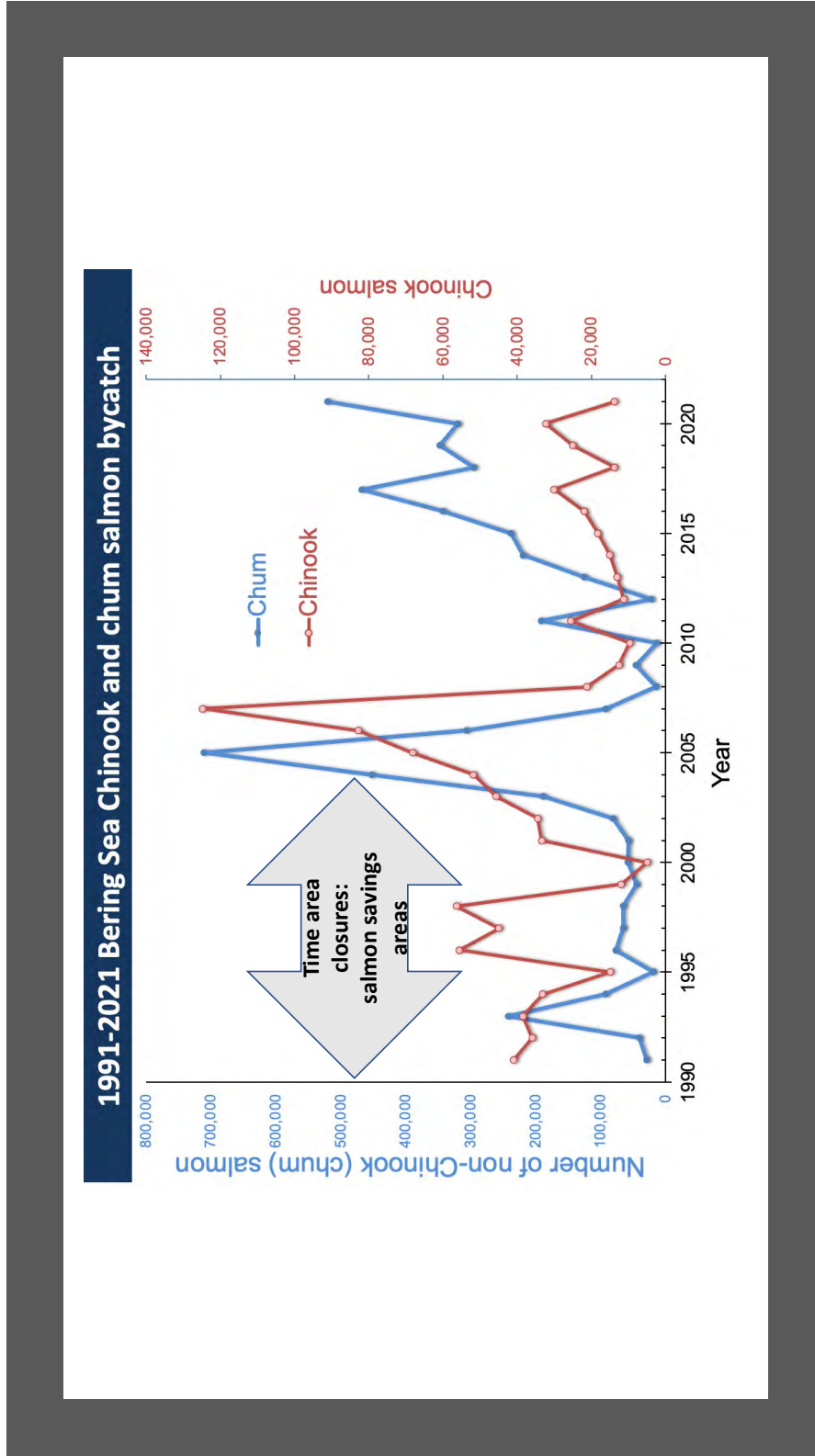
Impact rate for chum

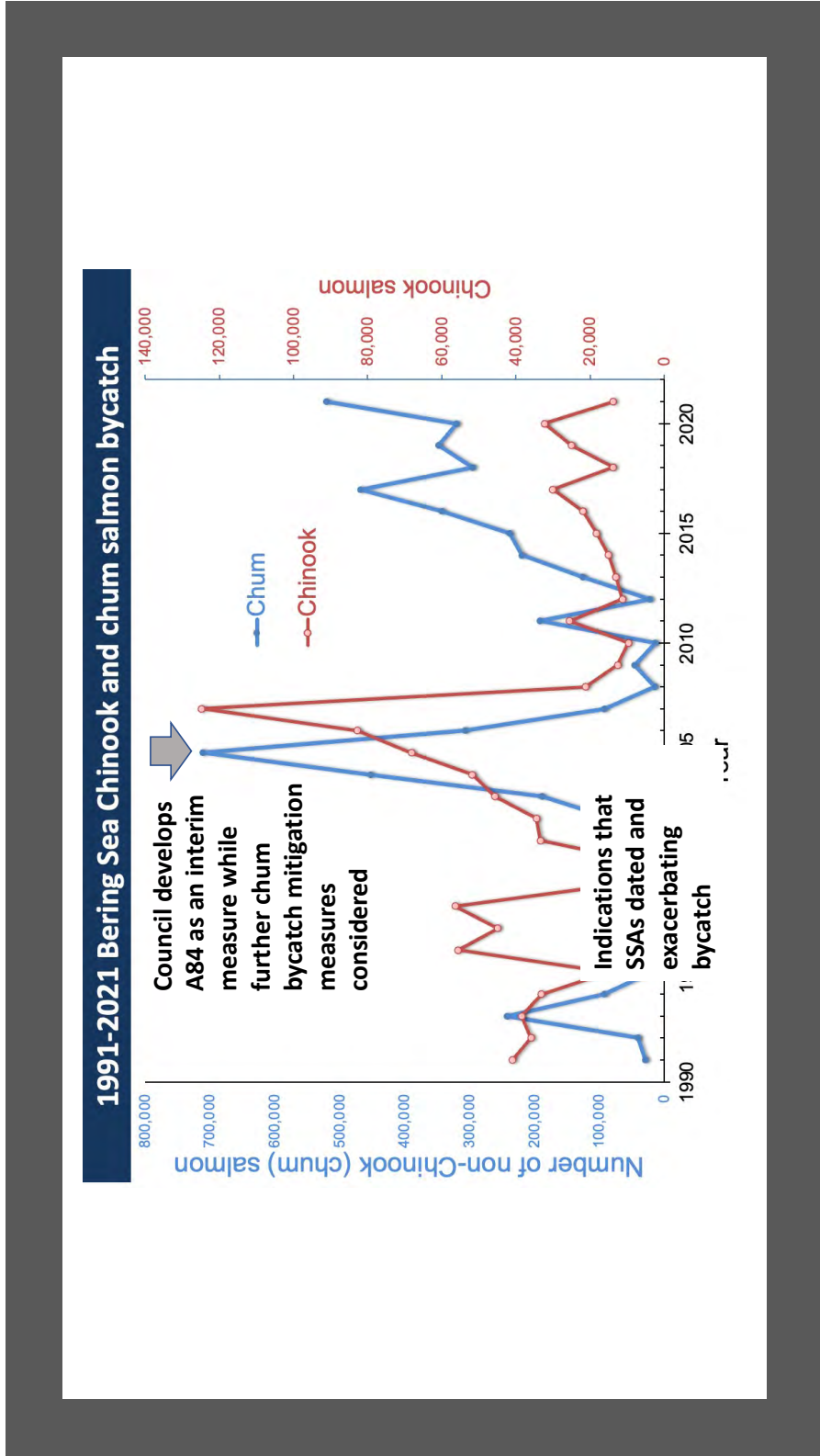
- For CWAK this is not possible.
- Run reconstructions are currently only available for Yukon River summer and fall chum salmon and Kwiniuk River chum salmon. This excludes large populations in Kuskokwim River and throughout Bristol Bay, Kotzebue Sound, and Norton Sound. Unlike Chinook salmon, the lack of run reconstructions for large populations of W. Alaska chum salmon means that a good approximation of total W. Alaska chum salmon abundance cannot be provided at this time.
- Impact rate for Yukon fall would be possible but may not reflect trends across all western AK chum stocks

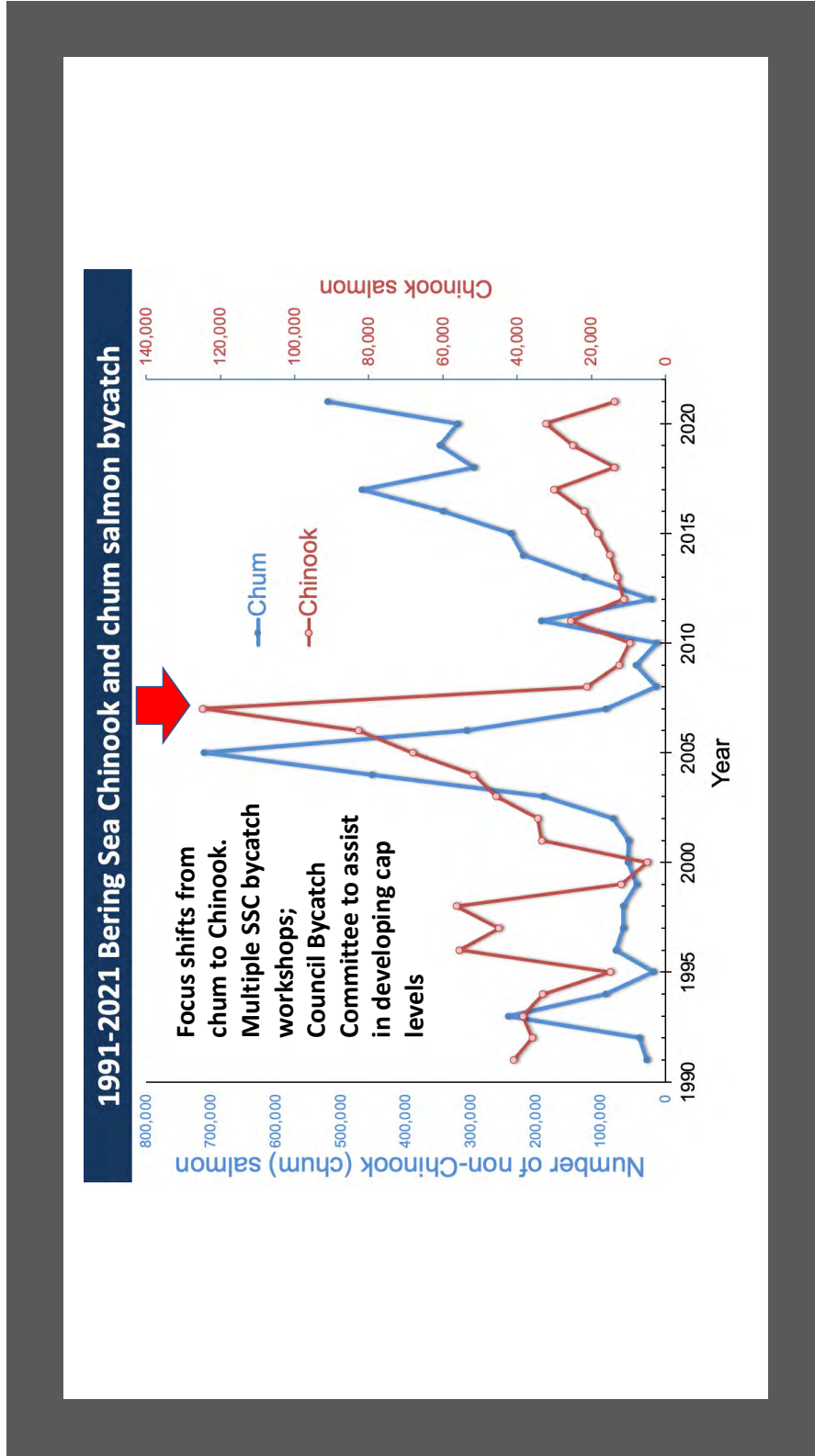
Assessing impacts

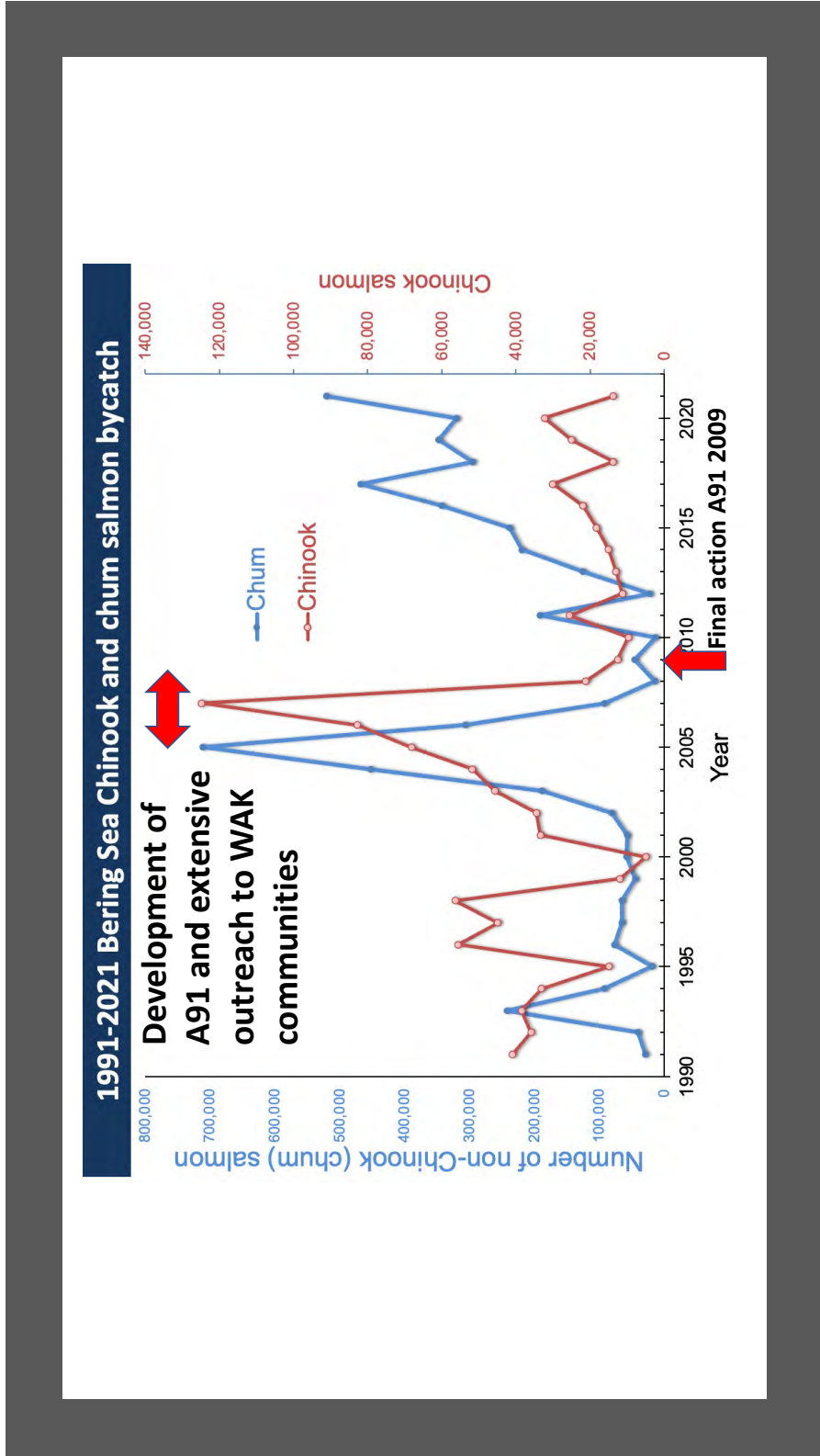
Brief history of actions related to
Chinook and chum salmon bycatch
management

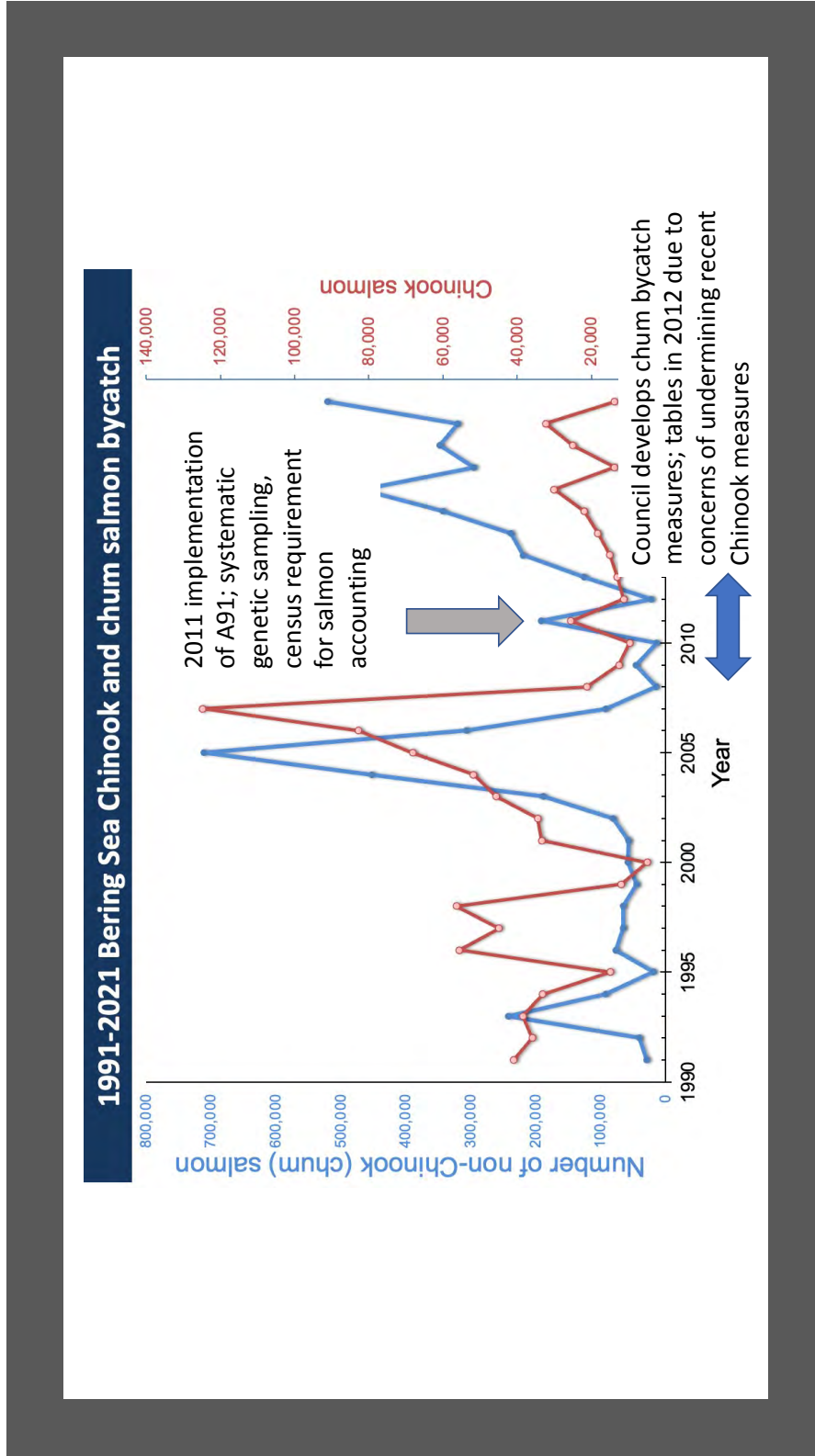


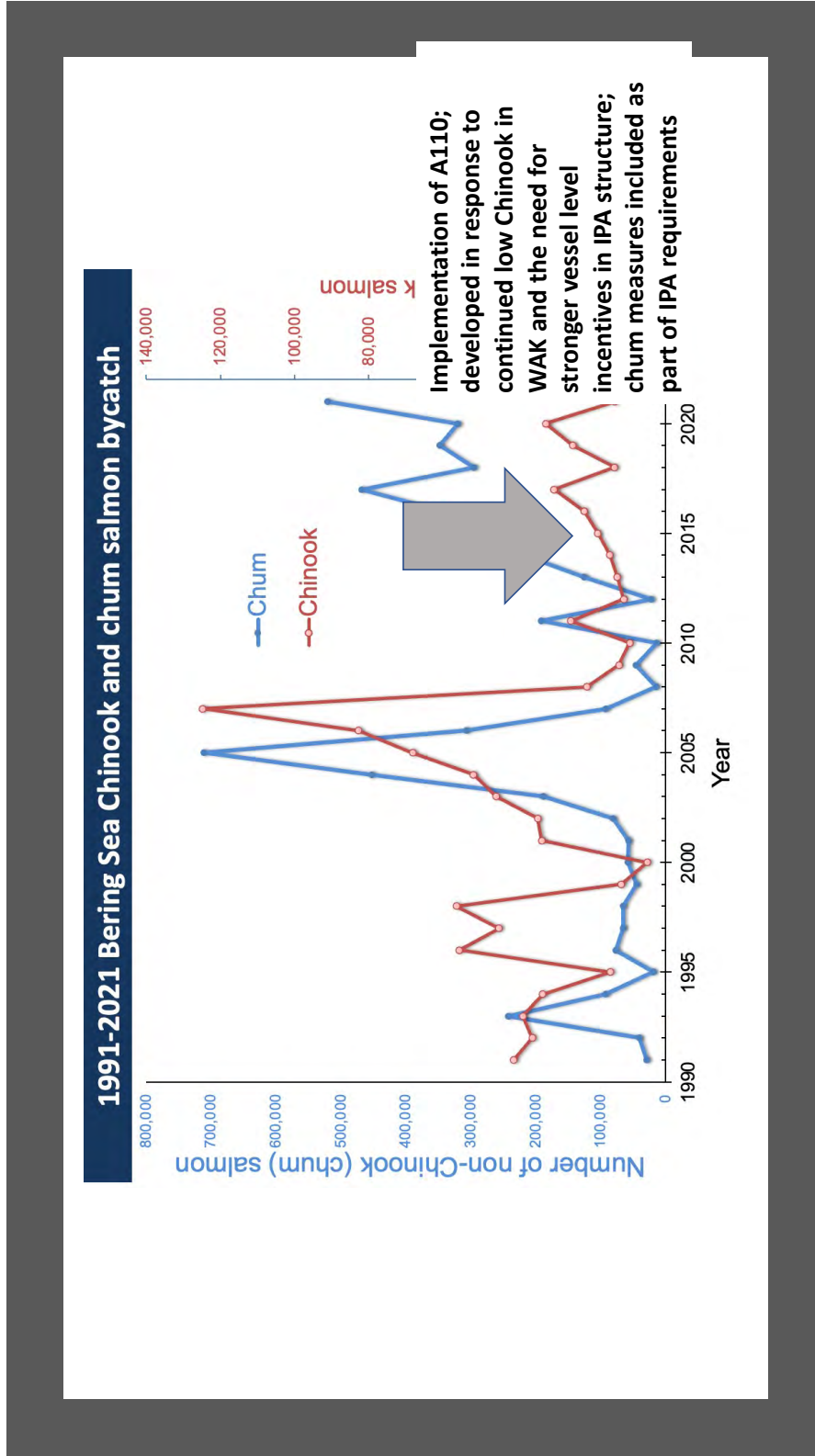















Council Action in June 2022

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. The Council commits to continued improvements in bycatch management with a goal of minimizing bycatch at all levels of salmon and pollock abundance. Towards this end,

- **The Council requests the pollock industry implement additional chum salmon bycatch avoidance measures beginning immediately.** The Council recognizes that these new chum salmon avoidance measures may have limited ability to target the proportion of chum salmon (9%) destined to return to western Alaska but can reduce overall salmon bycatch.
- **The Council requests a discussion paper updating the 2012 analysis of chum salmon bycatch.** The paper should include:
 - updated chum salmon bycatch and genetic stock composition data, including a discussion of how the genetic composition data vary across space and time;
 - 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).



Part 1

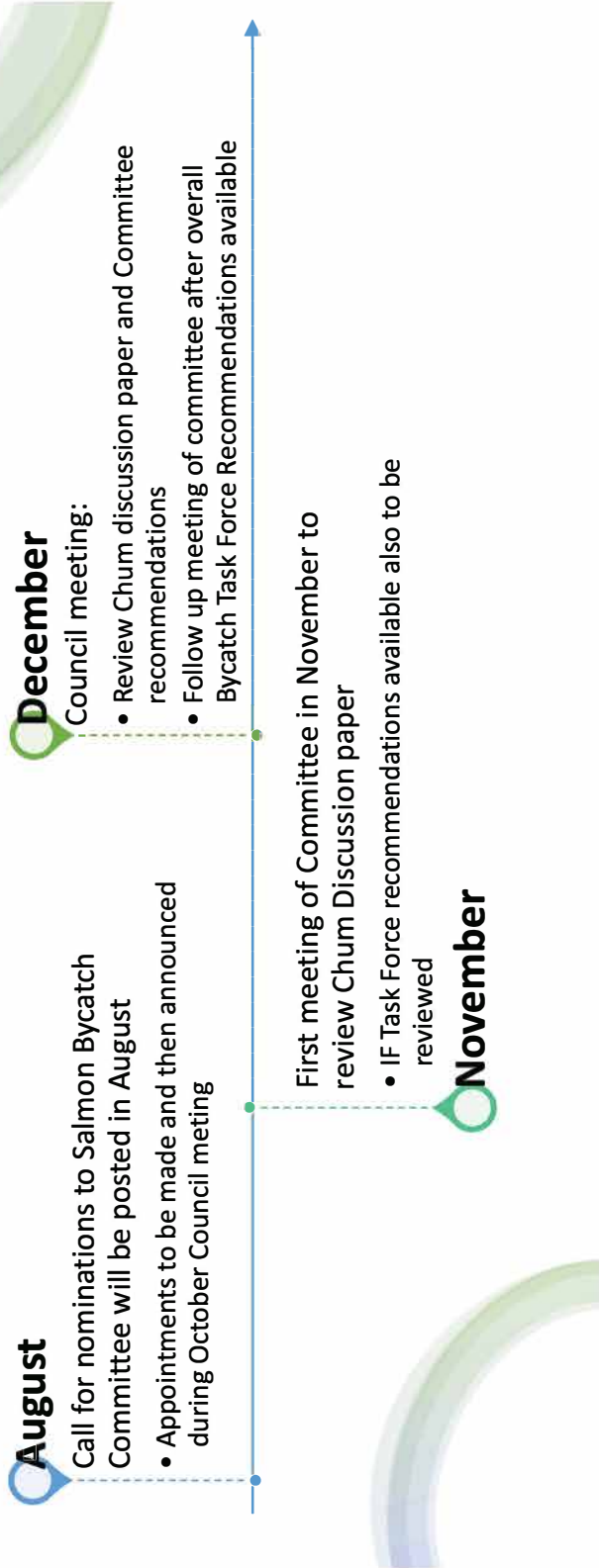
- **The Council intends to consider the findings and recommendations of the State of Alaska’s Bycatch Task Force as it considers how to improve salmon bycatch management.**
- **The Council intends to collaborate with western Alaska salmon users by forming a working group of Tribal members, scientists, industry representatives, and other experts.** The working group will review and provide recommendations on: 1) the discussion paper on chum salmon bycatch referenced above; 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.

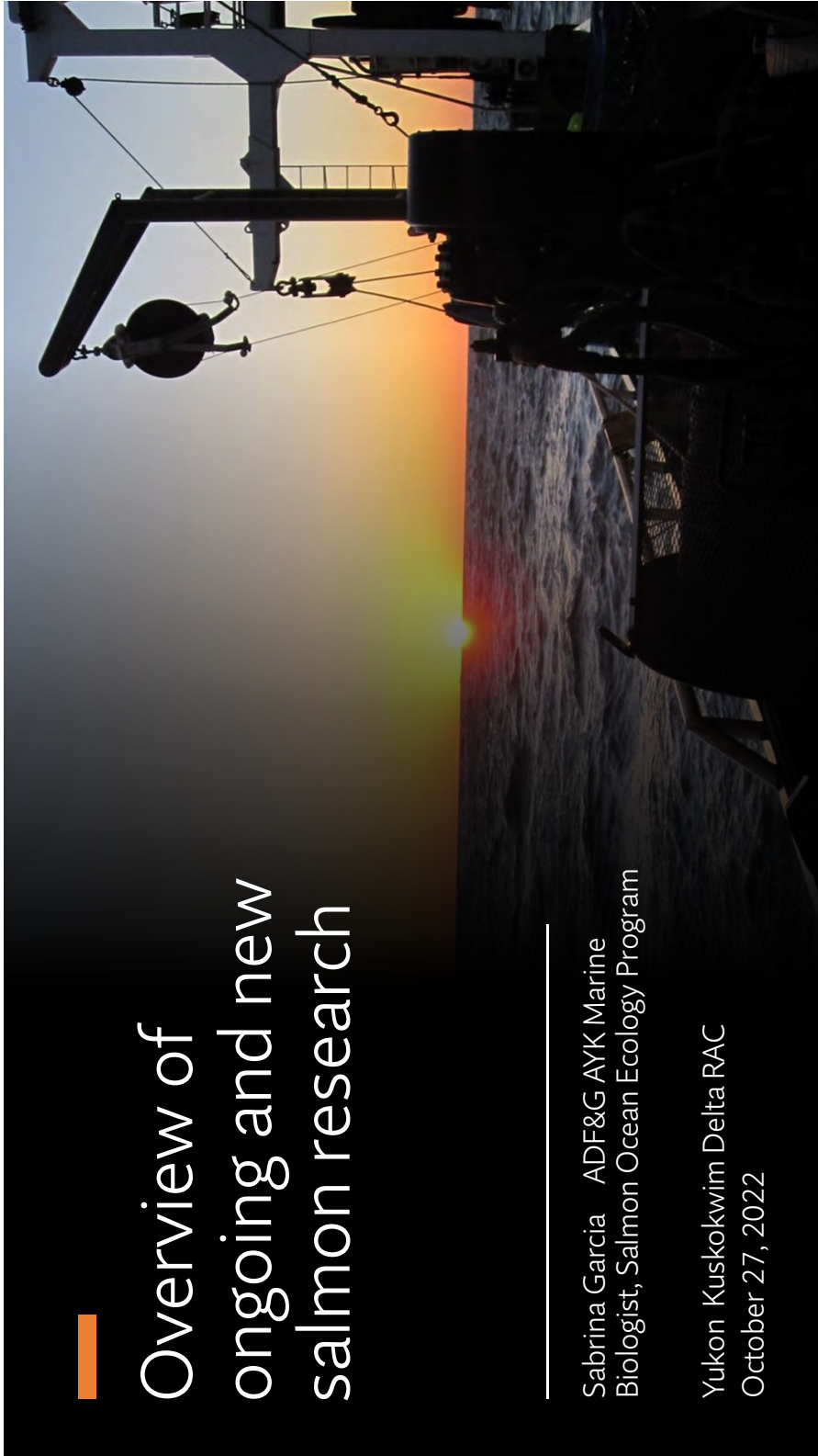




- **The Council prioritizes research on Bering Sea salmon.**
 - The Council supports NOAA and ADF&G prioritizing development of models to predict where and when specific salmon stocks will be located in the Bering Sea. This work will inform development of management measures focused on avoiding western Alaska salmon bycatch in the pollock fishery.
 - The Council supports and prioritizes work to reduce the time for analysis of genetic data, increased survey work in the nearshore environment in the Bering Sea as proposed by ADF&G, and continued industry innovation on gear modifications that may reduce bycatch.

What is next?





Overview of ongoing and new salmon research

Sabrina Garcia ADF&G AYK Marine Biologist, Salmon Ocean Ecology Program

Yukon Kuskokwim Delta RAC
October 27, 2022

Salmon Ocean Ecology Program (SOEP)

Who We Are:

- Initiated ~ 2 years ago
- Statewide Fisheries Scientist, AYK Marine Biologist, Statewide Fishery Biologist 2

What We Do:

- Understand the marine life of Alaskan salmon
- Use this information to assist fishery management decision making
- Answer pressing questions about what drives salmon population dynamics

How We Do It:

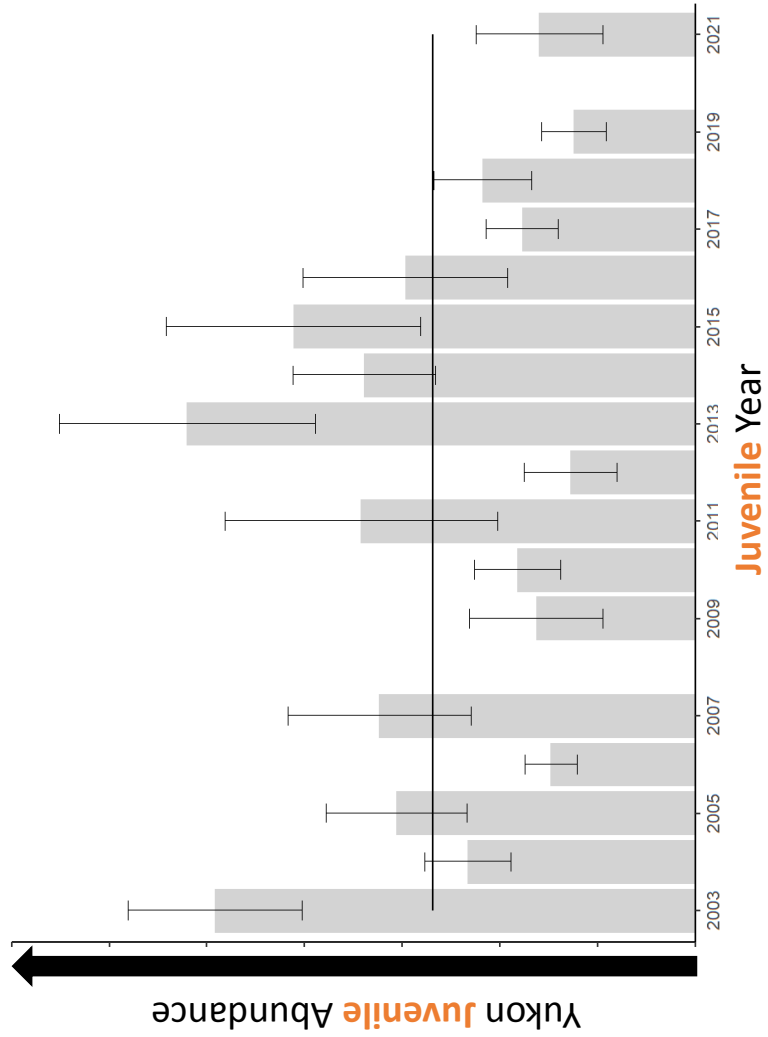
- Build capacity and collaborations
- Support marine research programs
- Work to fill knowledge gaps

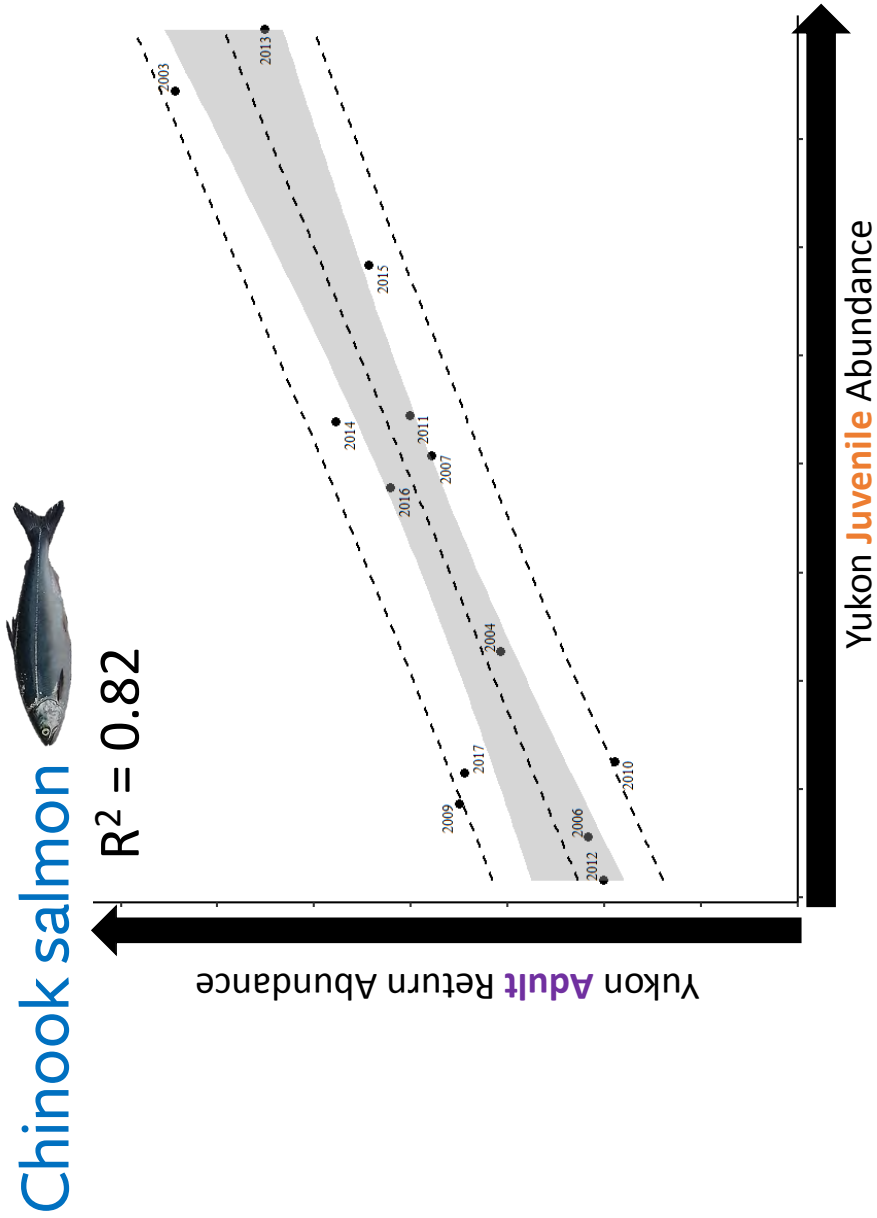


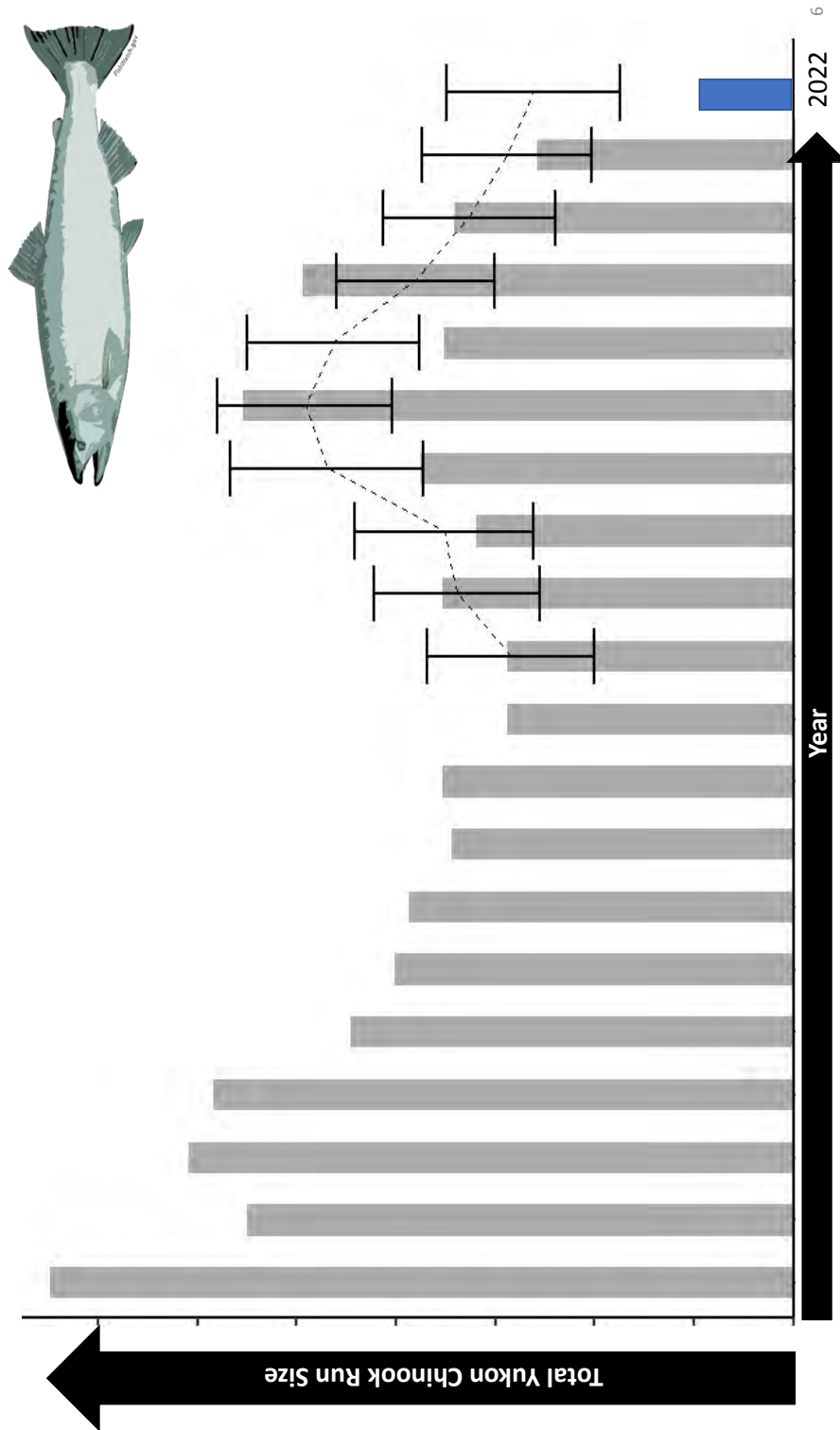


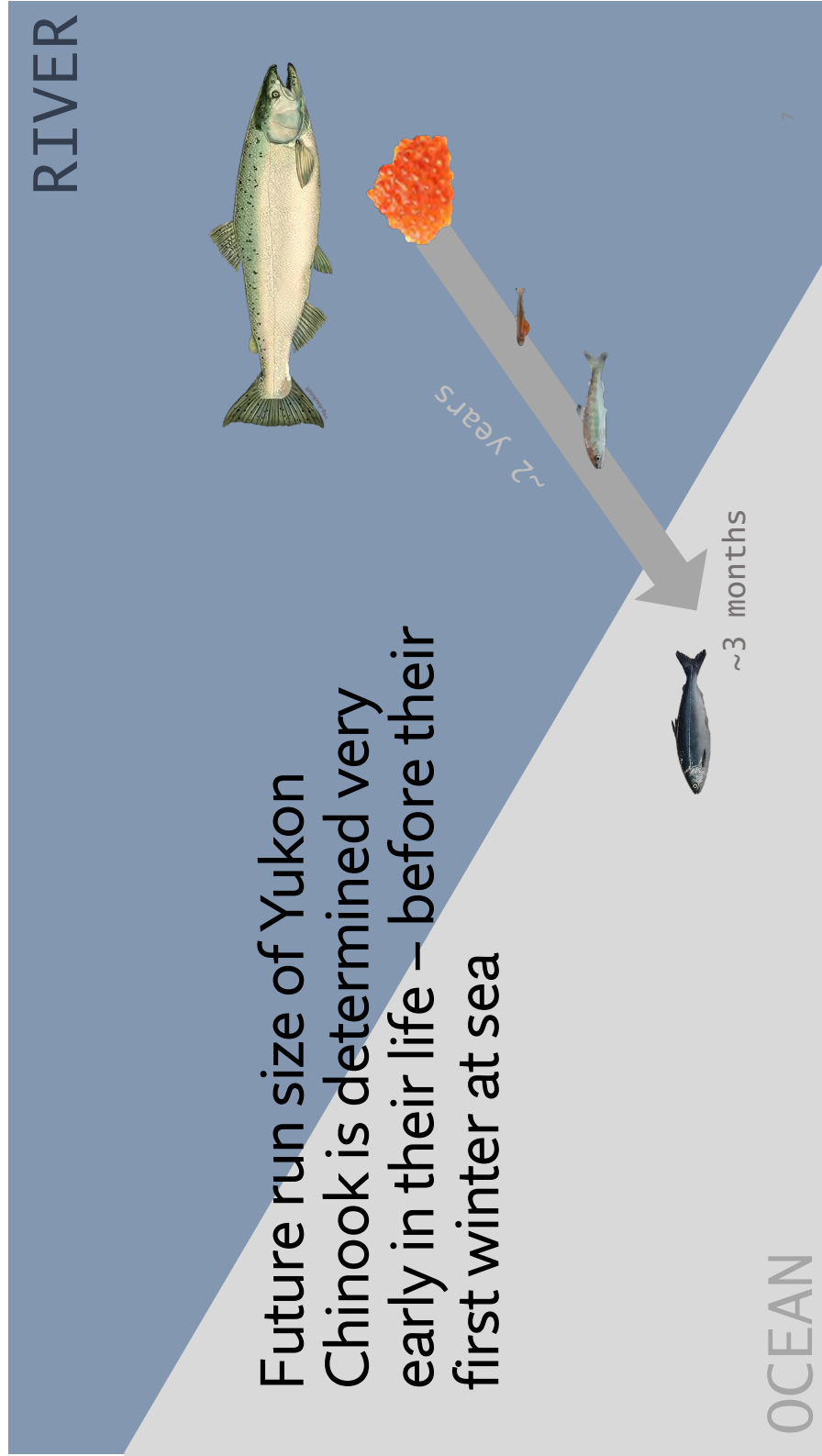


Chinook salmon

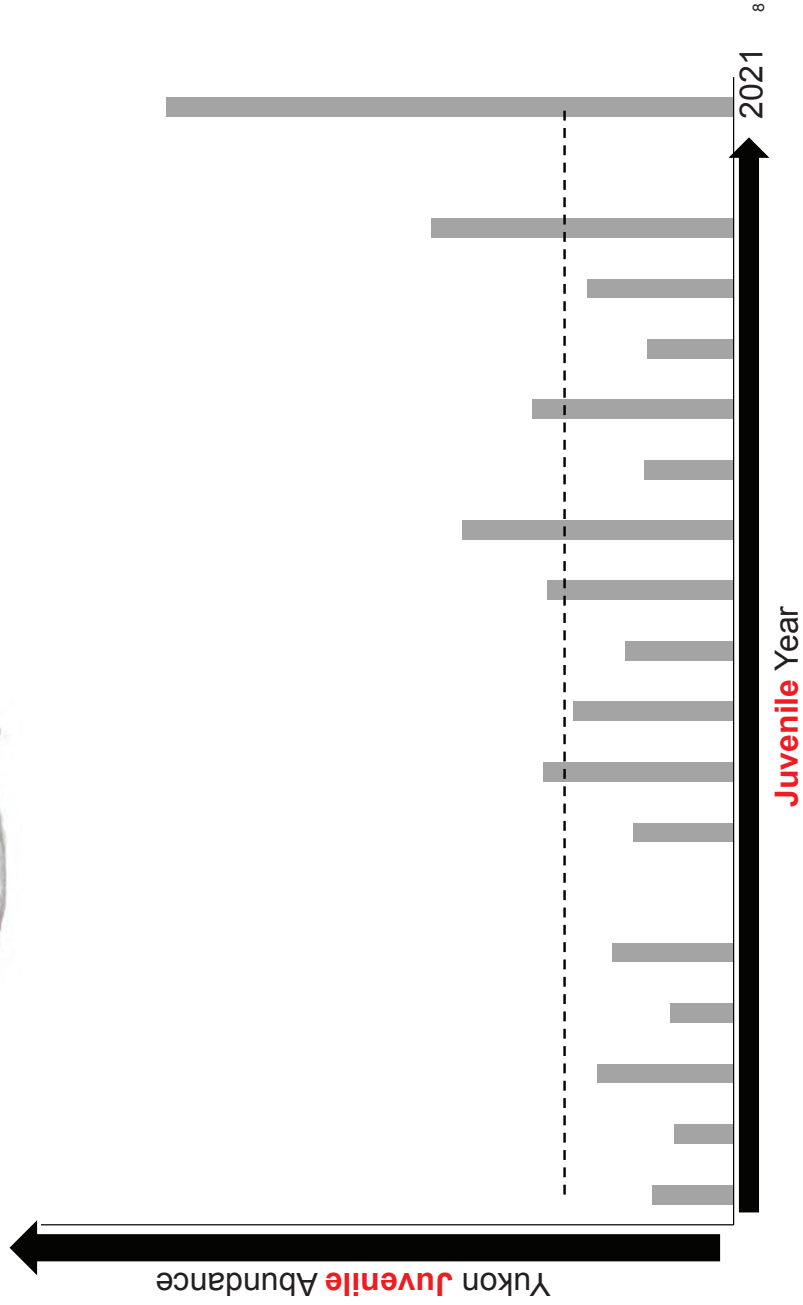


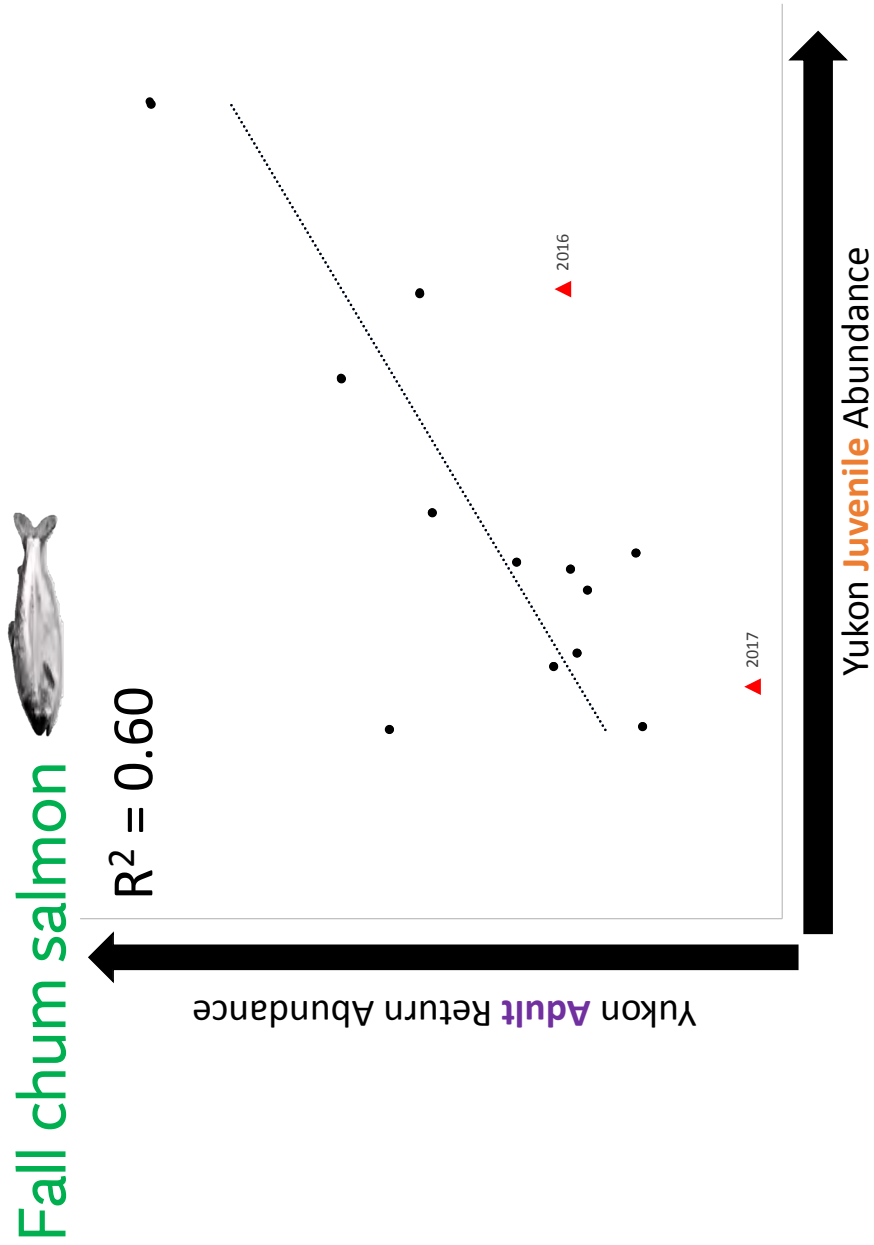


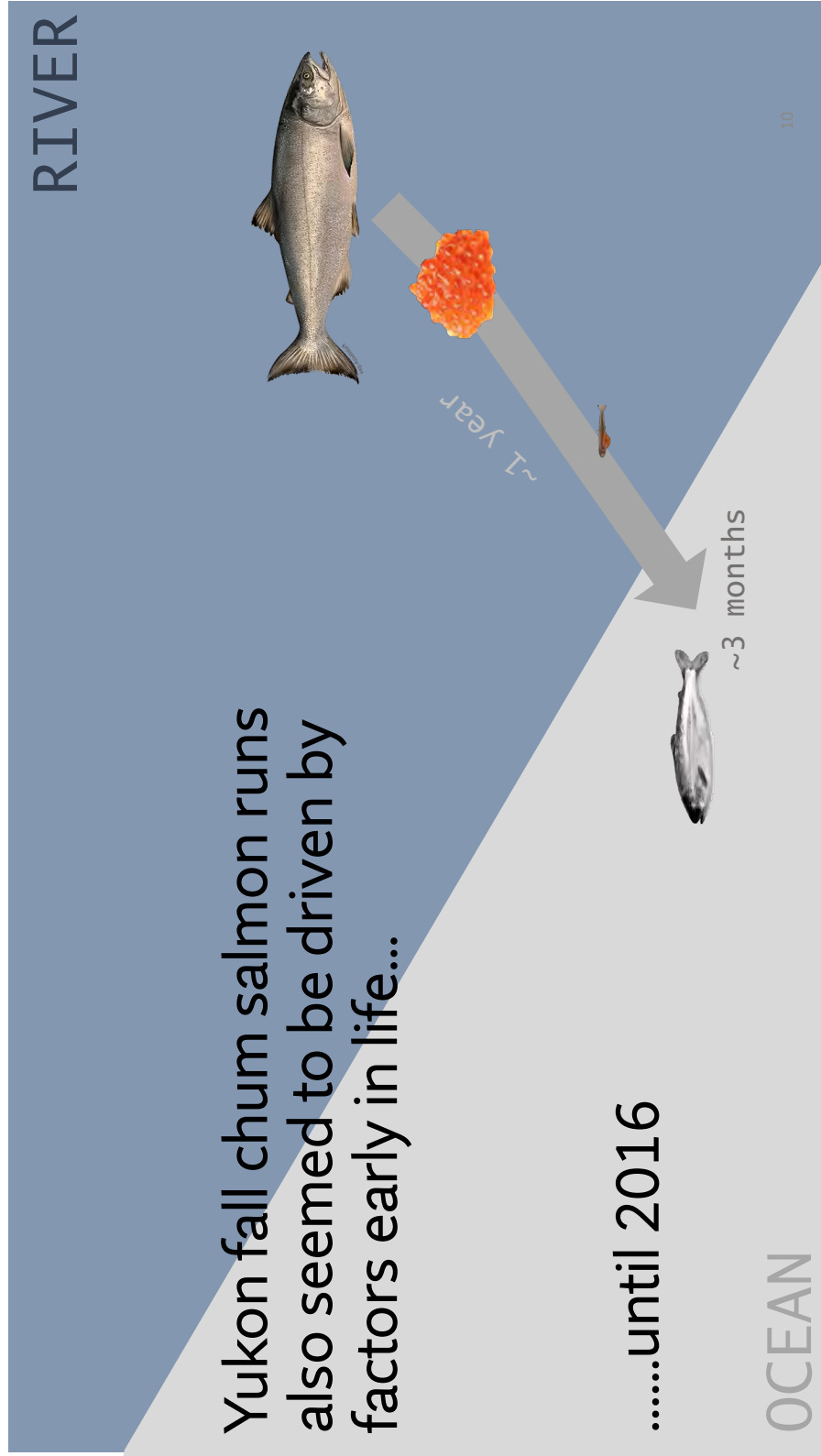


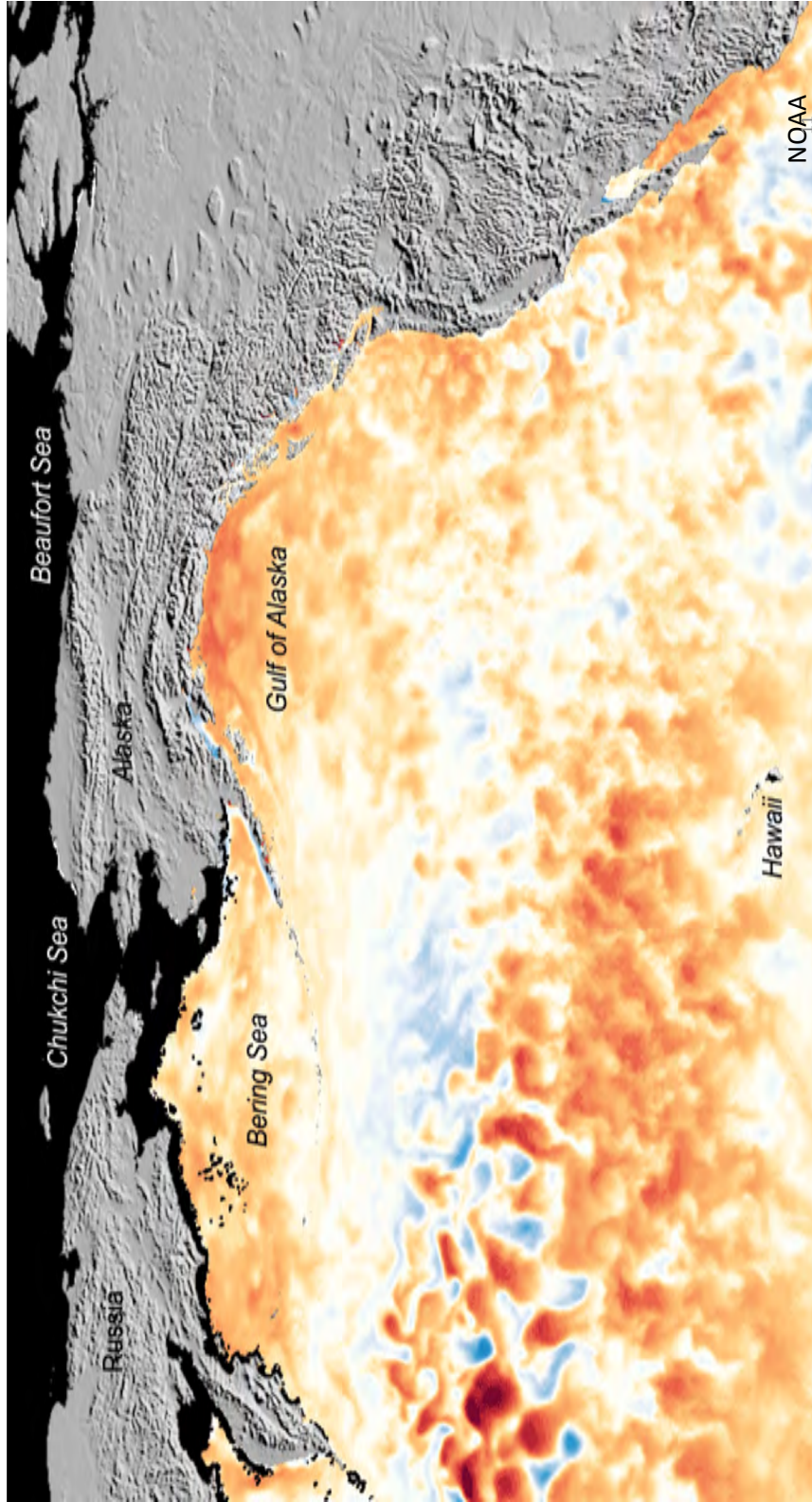


Fall chum salmon









Temperature Changes Affect Salmon

Stocks moving north



Different food available



Empty stomachs

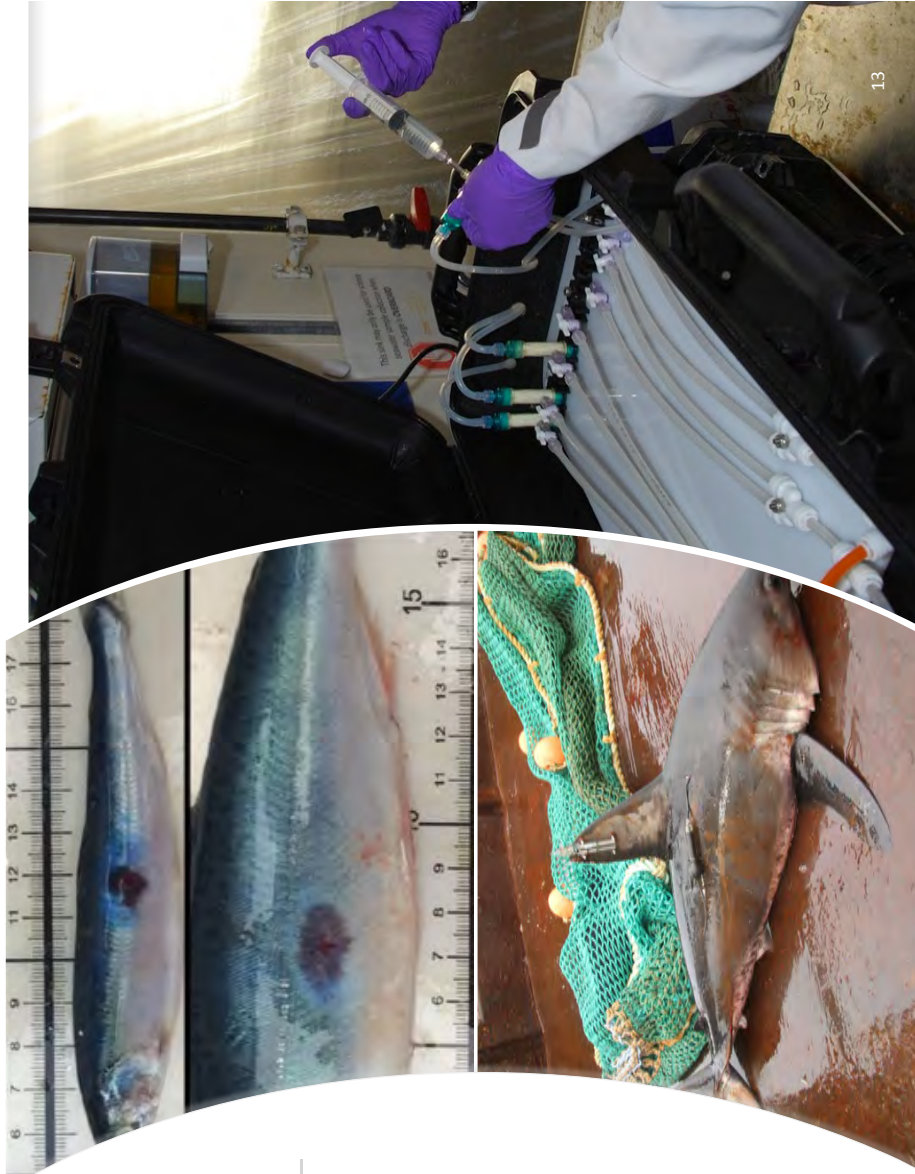


Increasing ocean temperatures = poorer condition



**Understanding
Bering Sea
predators
(ADF&G, NOAA,
UAF)**

1. Salmon shark satellite tagging program
2. Documenting predator wounds and scars
3. Using eDNA to document predators



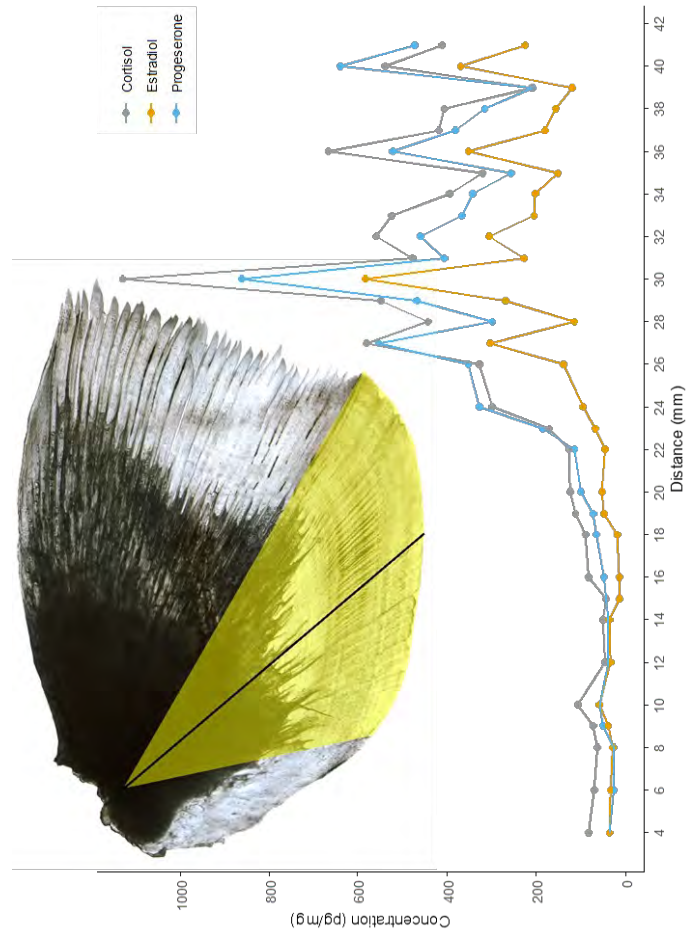
The image features a map of the Gulf of Alaska with a grid of blue dots representing survey locations. A white outline traces a survey route starting from the coast, moving east, then south, then east again, and finally north. Four circular callouts show different survey vessels: R/V TINRO (with a Russian flag), NOAA Bell M. Shimada (with an American flag), CCGS Healy (with a Canadian flag), and E/N Raw Spirit (with a Canadian flag). Labels on the map include 'Western Pacific Winter' at the bottom left, 'Gulf of Alaska Expeditions (2019-2020)' in the center, and 'CCGS Healy' and 'E/N Raw Spirit' near the top right.

2022 Pan-Pacific Survey (NPAFC/IYS)

- Builds off two surveys in the Gulf of Alaska in winter 2019 and 2020
- Distribution, diet, condition of immature salmon with a focus on AYK chum

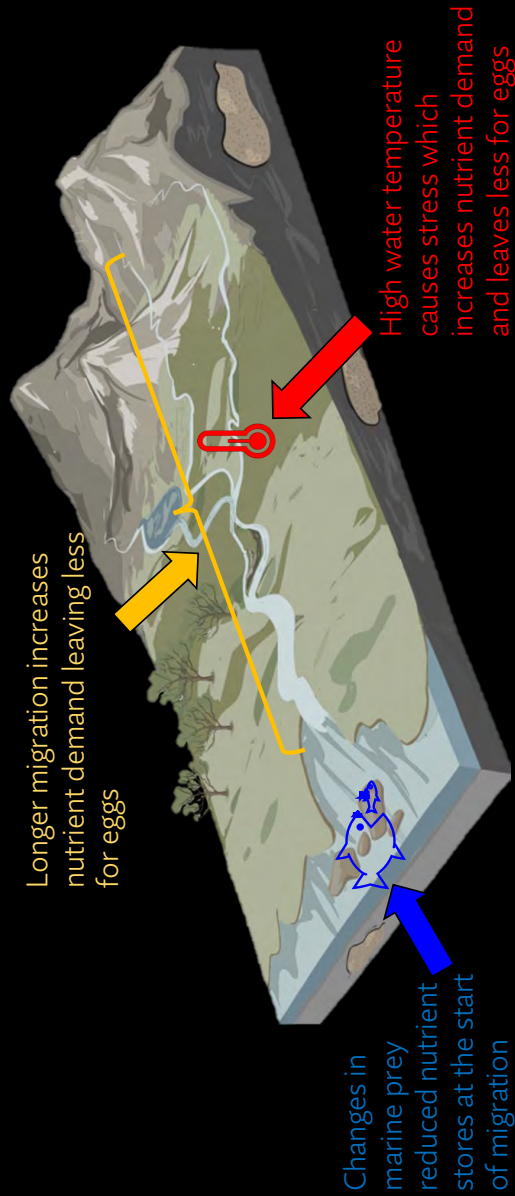
Predicting Chinook salmon hot spots to aid in bycatch avoidance
(ADF&G, UAF, NOAA)





Environmental histories of fall chum salmon

Exploring Linkages Between a Changing Climate and Productivity of Yukon River Chinook Salmon (ADF&G, NOAA, USGS and YRDFA)



Objective: Determine if female Chinook returning to spawn are less well equipped to successfully make it to their spawning grounds or are producing eggs that are less well equipped to survive because of changes to the quality of the marine food, heat stress, or disease.

A large white research vessel with a blue stripe and various antennas is shown on the water. The background is a deep blue sea under a clear sky. Overlaid on the right side of the image is a QR code and a circular logo. The logo features a shark and a salmon, with the text 'UNDERSEA WORLD OF SHARKS & SALMON' around the perimeter. Below the QR code, the text 'Follow us on Facebook:' is written vertically. At the bottom of the image, the text 'Thank you!' is written vertically, followed by three email addresses: sabrina.garcia@alaska.gov, jim.murphy@noaa.gov, and kathrine.howard@alaska.gov.

Follow us on Facebook:



Thank you!

sabrina.garcia@alaska.gov

jim.murphy@noaa.gov

kathrine.howard@alaska.gov

Presentation Procedure for Proposals and Closure Reviews

1. Introduction and Presentation of Draft Staff Analysis

2. Report on Board Consultations:

- a. Tribes
- b. ANCSA Corporations

3. Agency Comments:

- a. ADF&G
- b. Federal
- c. Tribal

4. Advisory Group Comments:

- a. Other Regional Advisory Council(s)
- b. Fish and Game Advisory Committees
- c. Subsistence Resource Commissions

5. Summary of Written Public Comments

6. Public Testimony

7. Regional Council Recommendation (motion to adopt)

8. Discussion/Justification

- Is the recommendation consistent with established fish or wildlife management principles?
- Is the recommendation supported by substantial evidence such as biological and traditional ecological knowledge?
- Will the recommendation be beneficial or detrimental to subsistence needs and uses?
- If a closure is involved, is closure necessary for conservation of healthy fish or wildlife populations, or is closure necessary to ensure continued subsistence uses?
- Discuss what other relevant factors are mentioned in OSM Draft Staff Analysis

9. Restate final motion for the record

10. Council's Vote

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