

Kuskokwim River Salmon Management Working Group

1 (800) 315-6338 (MEET) Code: 58756# (KUSKO)

ADF&G Bethel toll free: 1 (855) 933-2433

Meeting Agenda

Date: April 29, 2022

Time: 9:00am–5:00pm*

Place: Bethel, AK

*The Group may choose to take breaks when needed.

Time Called to Order:

Chair:

Time Adjourned:

ROLL CALL TO ESTABLISH QUORUM:

Upriver Elder:

Downriver Elder:

Commercial Fisher:

Lower River Subsistence:

Middle River Subsistence:

Upper River Subsistence:

Headwaters Subsistence:

QUORUM MET? Yes / No

Member at Large 1: :

Member at Large 2:

Sport Fisher:

Western Interior RAC:

Y-K Delta RAC:

KRITFC:

ADF&G:

INTRODUCTIONS:

INVOCATION:

APPROVAL OF AGENDA: *the agenda may be amended at this time.*

PEOPLE TO BE HEARD:

A. Bering Sea Juvenile Salmon Report (ADF&G)

B. 2021 Season Recap / Presentations

- Subsistence Section Project Overview
- Assessment projects review (Weirs, Aerial, ASL) (Sean Larson, ADF&G)
- Chinook salmon total run and drainage wide escapement estimate (Sean Larson, ADF&G)
- 2022 Chinook Salmon Forecast (Sean Larson, ADF&G)

C. 2022 Fishery Management:

- 2022 Assessment projects
 - ADF&G
 - NVN
 - USFWS
 - BSFA/ KRITFC
 - ONC
- ADF&G Management Presentation & Discussion On Specific Management Actions For 2022 (Nick Smith, ADF&G)
 - Date to begin early season closure
 - Set gillnet fishing periods during early season closure
 - Tributary Management
 - Salmon Tributaries (Eek, Kwethluk, Kisaralik, Kasigluk, Tuluksak, and Aniak Rivers)
 - Non-Salmon Tributaries (i.e. Gweek, Tunt, Johnson Rivers)
 - Use of live release gear (fish wheels, dip nets, beach seines, and hook and line)
 - Sport Fishing (John Chythlook, ADF&G)
- Yukon Delta National Wildlife Refuge (Boyd Blihovde, USFWS)

D. WORKING GROUP BUSINESS:

- Election of Co-Chairs
- Working Group In-Season Meeting Schedule
- Nominate WG representative to serve at KRITFC inseason meetings

E. COMMENTS FROM WORKING GROUP MEMBERS:

NEXT MEETING DATE: _____ Time: _____ Place: _____ ↑

Informational Packet

Information Packets *ARE*:

- Intended to help inform Working Group discussions.
- To be viewed and used in context with Working Group meetings only.

Packets *ARE NOT*:

- To be viewed as standalone documents.
- A final say on fisheries management decisions.

Please use this information responsibly:

Packet information is an incomplete snapshot of an ongoing discussion and changing conditions. Packet information should not be reproduced for any purpose other than to describe Working Group meeting discussions.

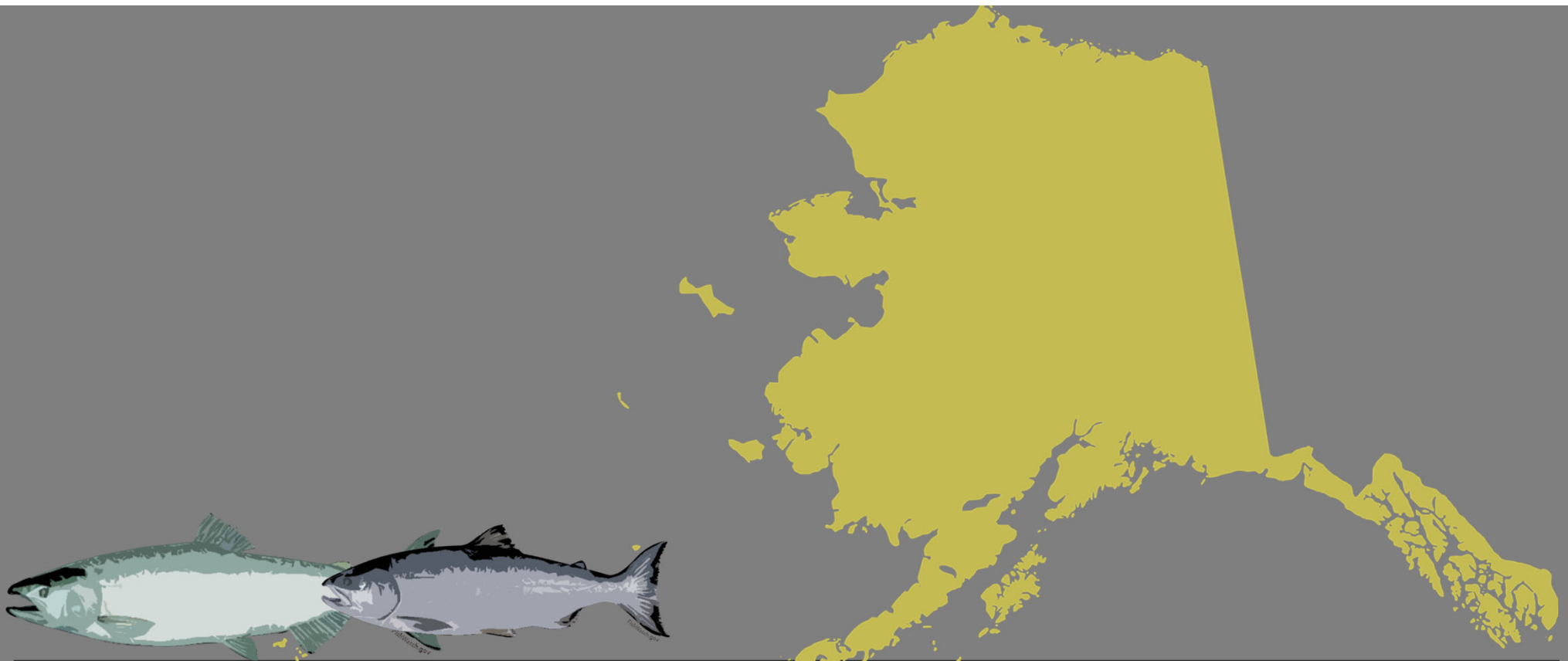
Misuse of Packet information can contribute to misunderstandings that can **cause harm to salmon users** and potentially **damage salmon resources**.

Ask Questions: ADF&G staff will be happy to answer biology and management questions. Please call **1-855-933-2433** to reach ADF&G Kuskokwim Area staff.

Attend Meetings: Each Working Group meeting is announced at least 48 hours prior to time and date of meeting. In addition, each meeting is recorded. Recordings can be found here:
http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyarea_kuskokwim.kswg

Viewing the information packet while listening to meetings/recordings will provide a better understanding of the information presented in this packet.

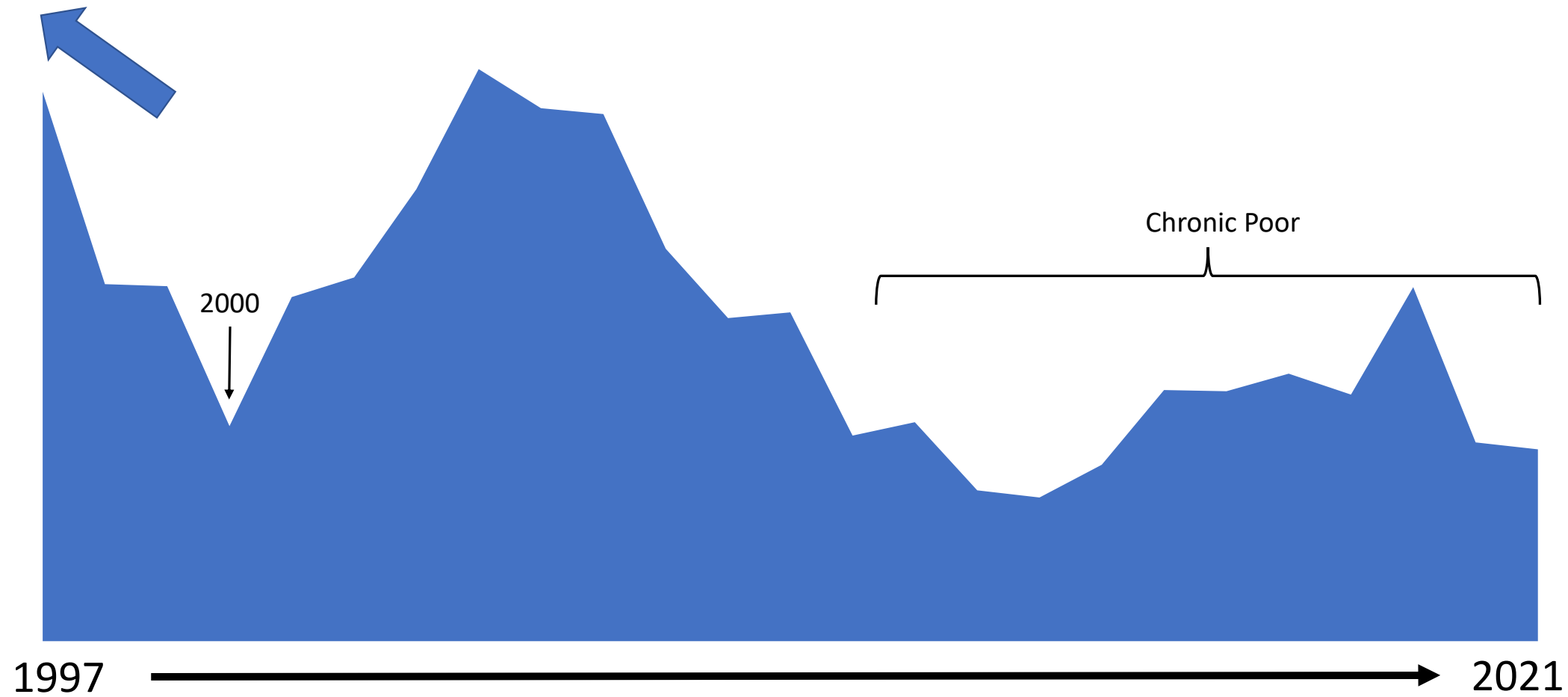
Thank you,
Nick Smith and Ross Renick
Working Group Coordinators



Western Alaska Chinook and Chum Salmon Stock Status

Ben Gray, Fishery Biologist
ADF&G Salmon Ocean
Ecology Program

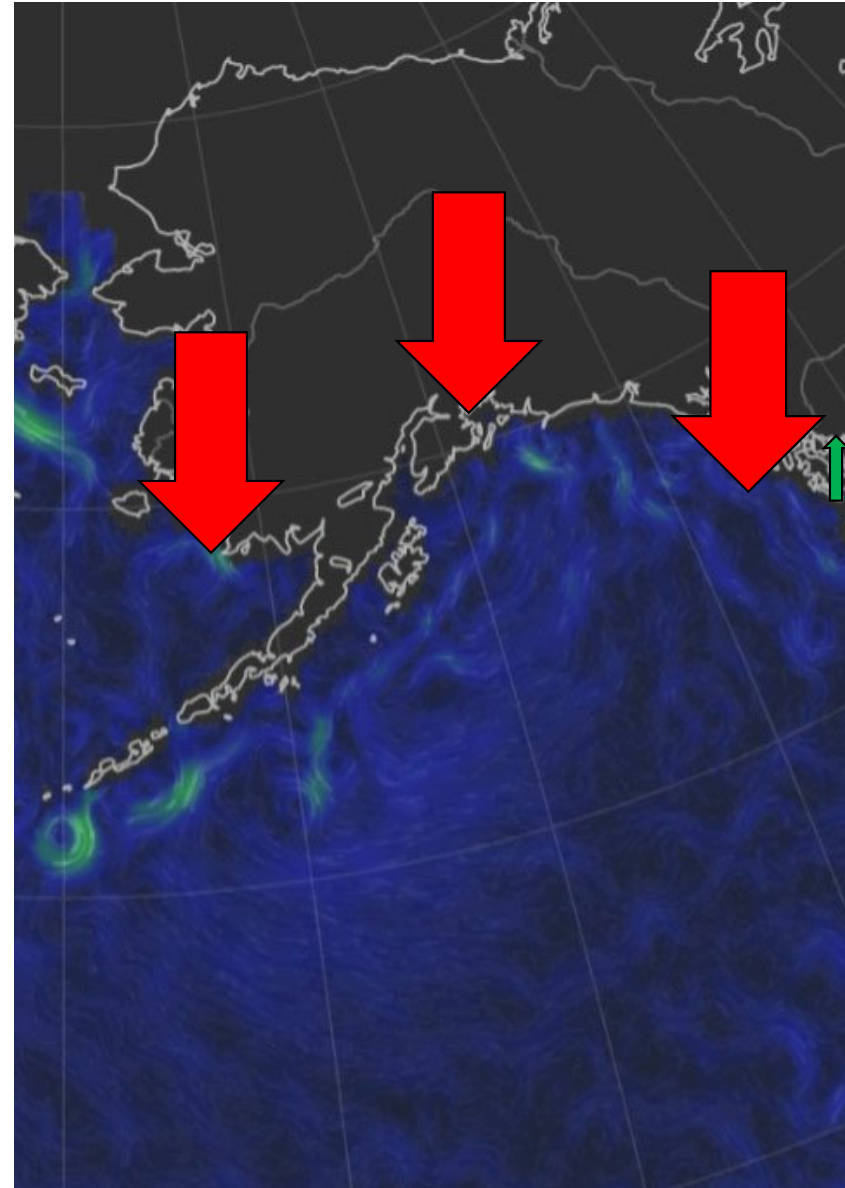
Western Alaska Chinook Salmon Index



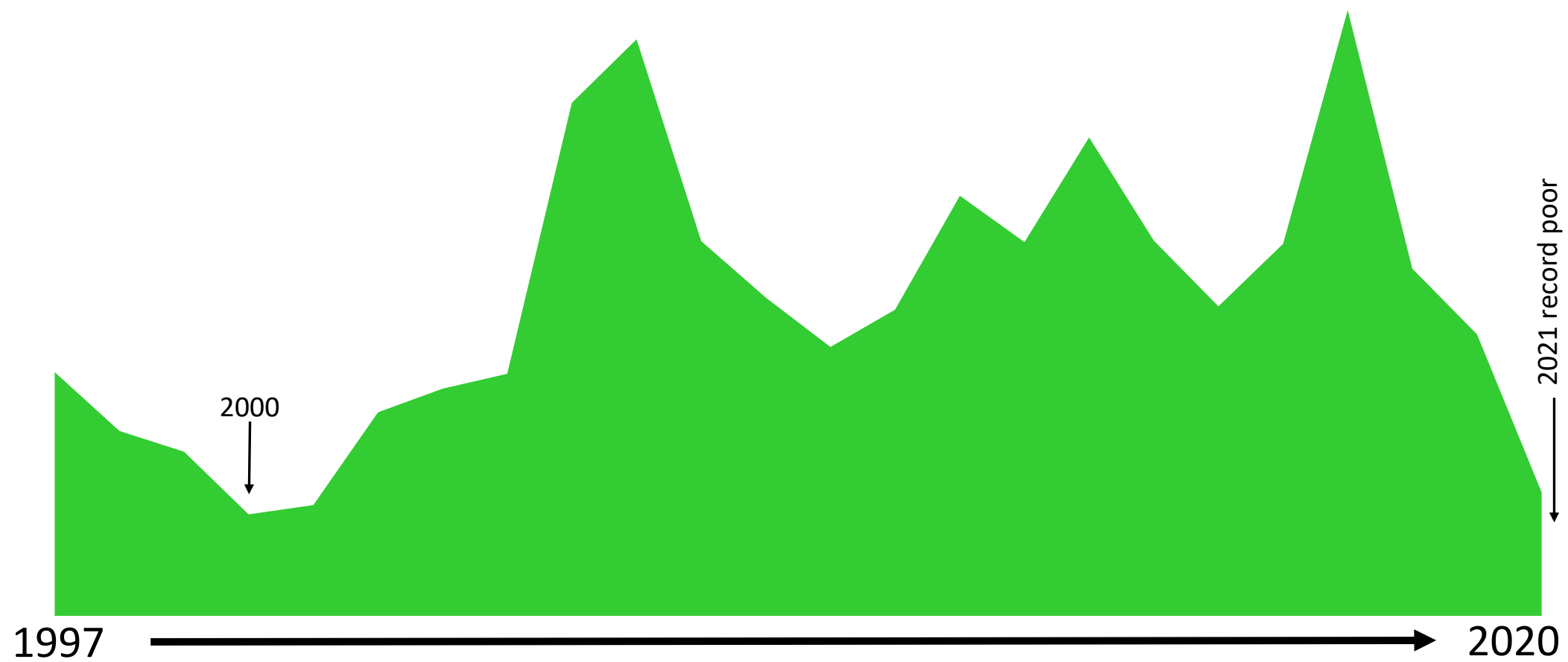
2021 Chinook Salmon



Below average to
poor statewide



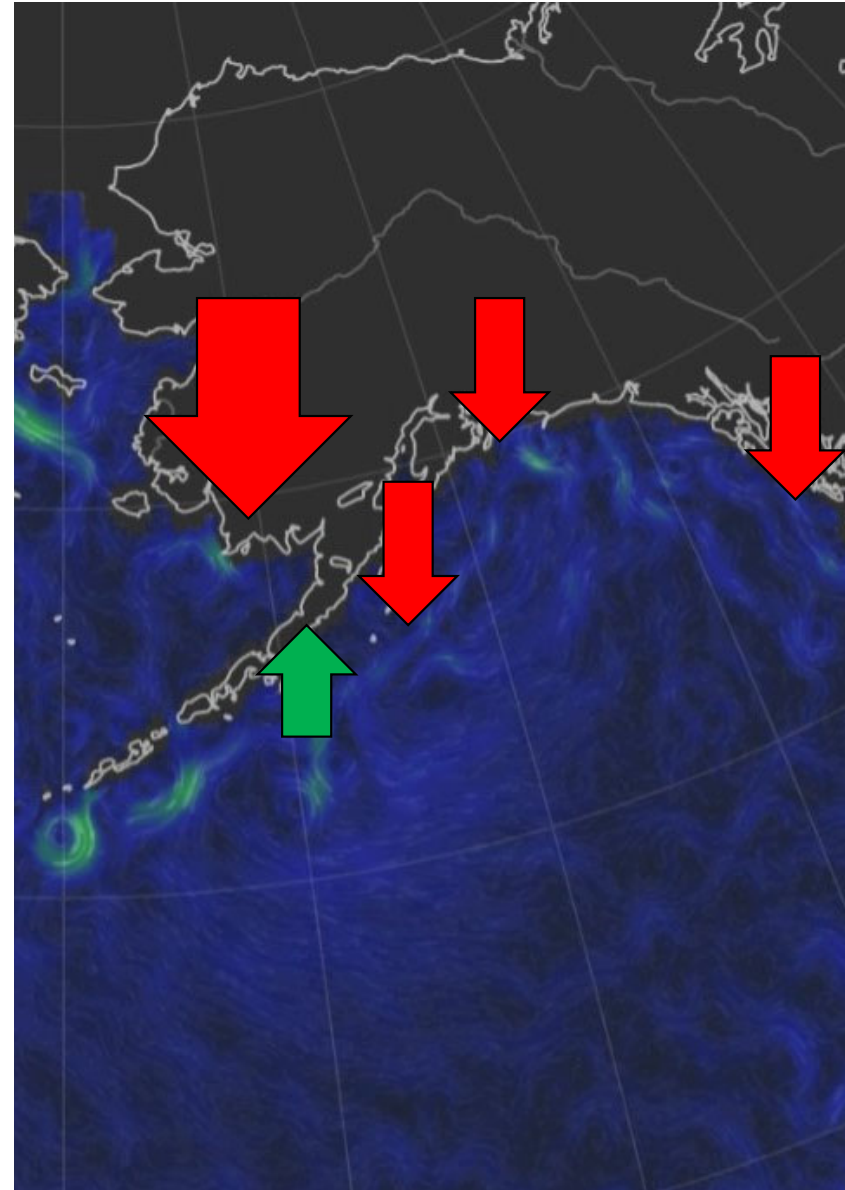
Western Alaska Chum Salmon Index



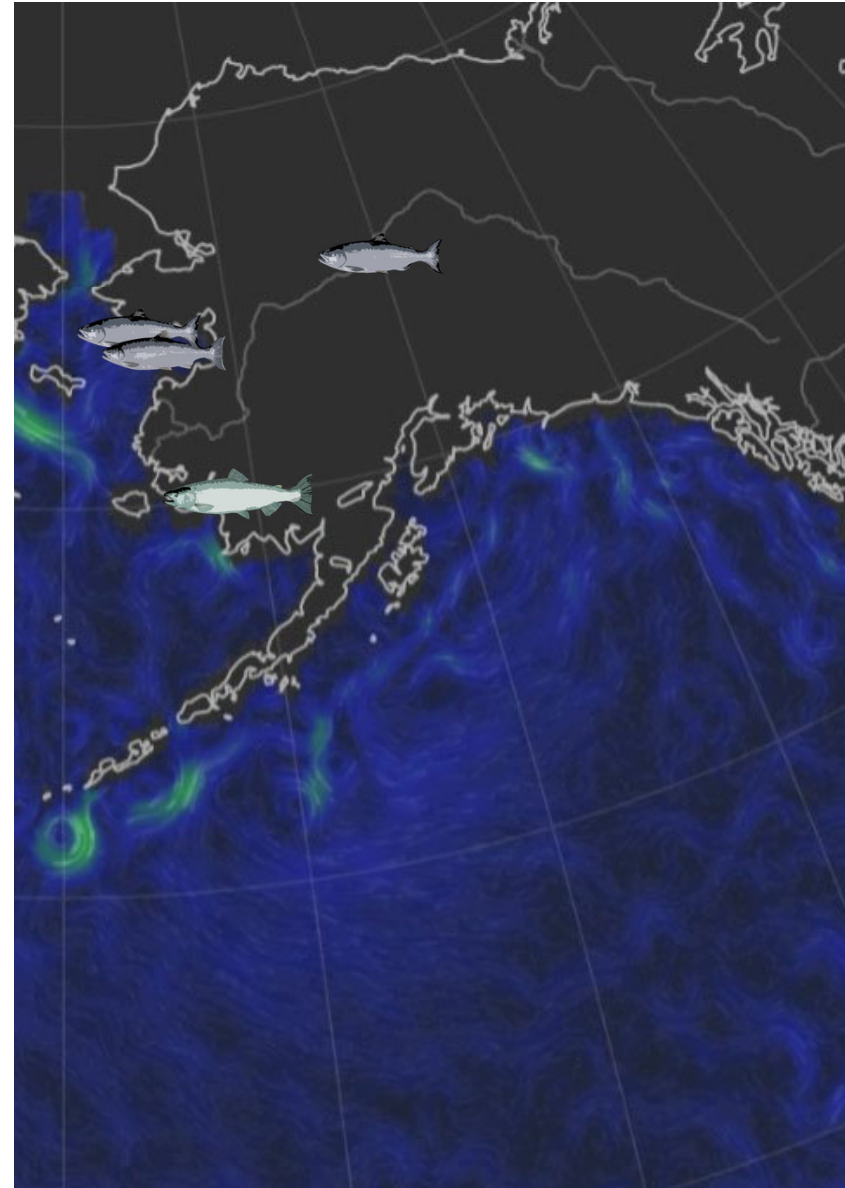
2021 Chum Salmon



Average to poor runs
statewide



- Kuskokwim River
Chinook –
age 5 & 6 → 4 & 5
- Norton Sound Chum
and Coho –
record low size
- Yukon River Chum –
record low size

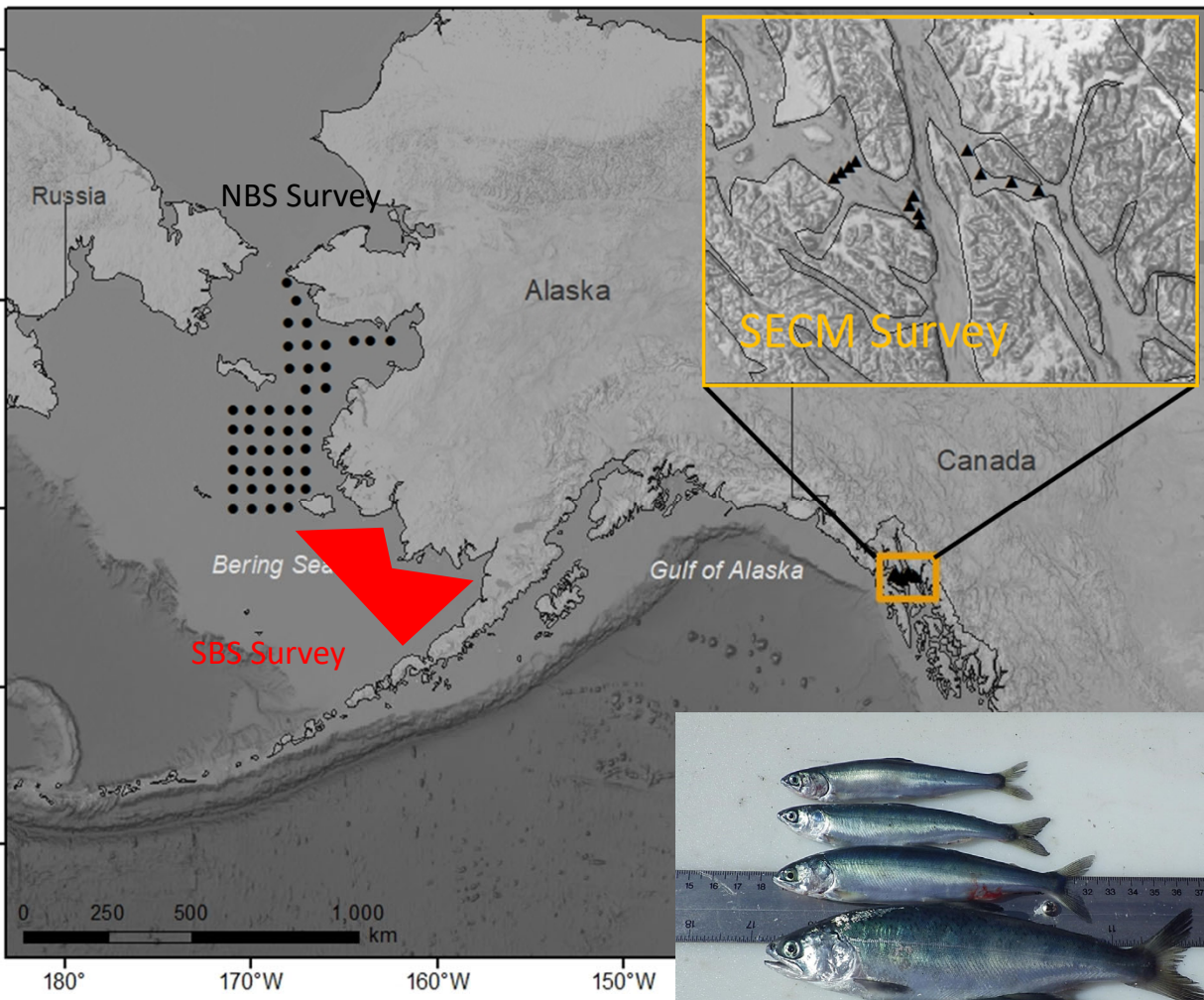


Salmon Ocean Ecology Program (SOEP)

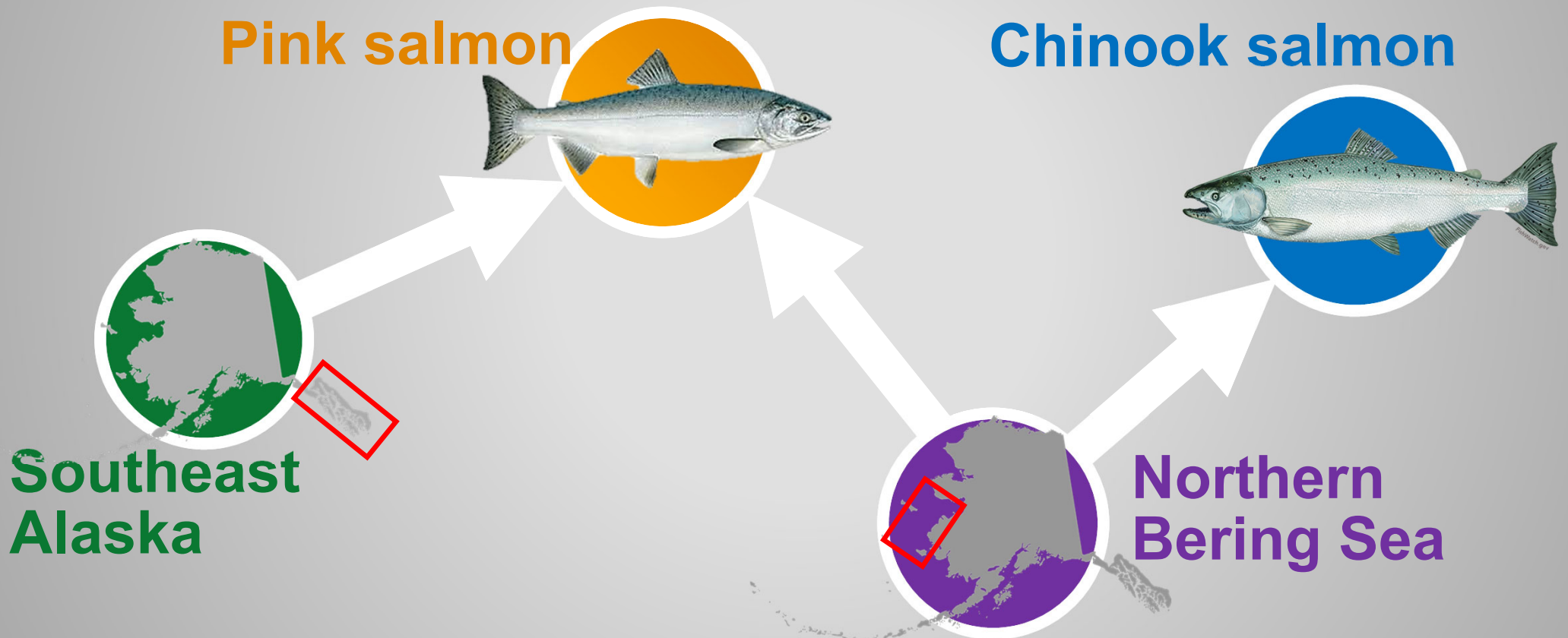
What we do:

- 1) Understand the marine life of Alaskan salmon
- 2) Assist fishery management decision making
- 3) Understand what drives salmon populations





1. Long term monitoring of Alaskan salmon at sea
2. Identify survival bottlenecks that affect future run sizes
3. Forecast run sizes (1 to 3 years in the future)



Juvenile salmon (1st summer at sea)

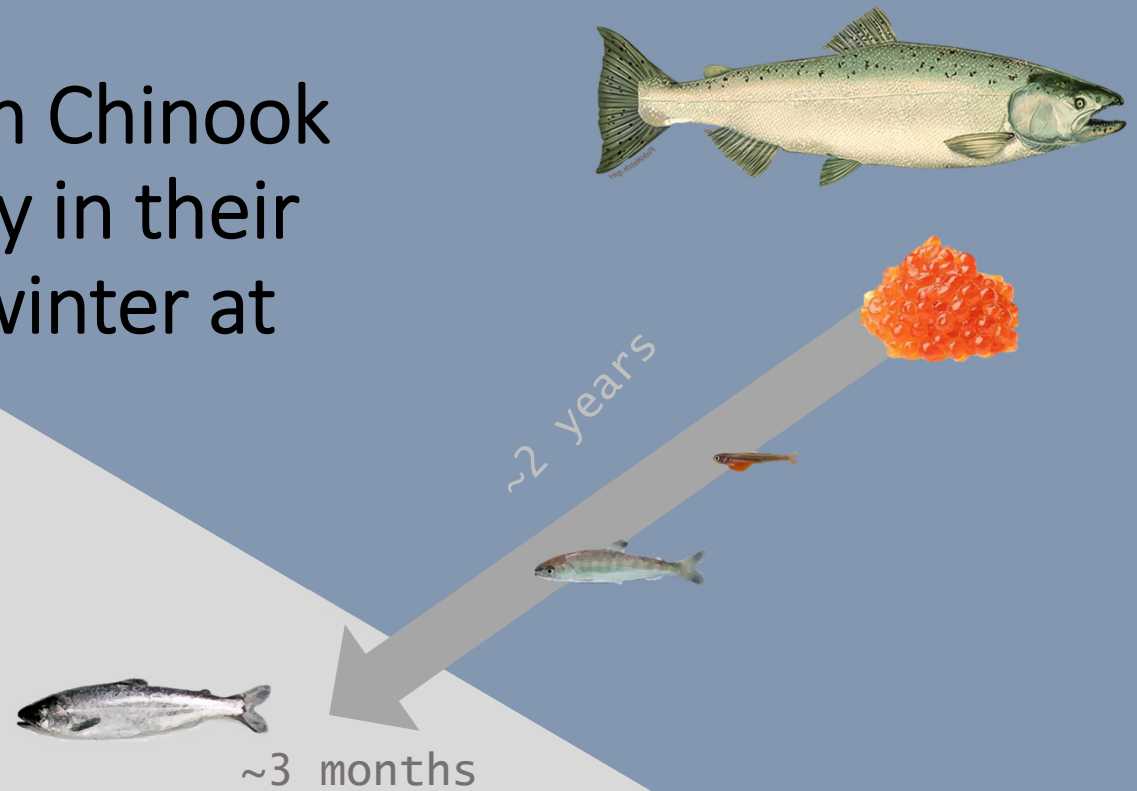
Immature and Maturing Chinook (2-4 years)

Immature and Maturing Chum (3-4 years)



RIVER

Future run size of Yukon Chinook is determined very early in their life – before their first winter at sea



OCEAN

RIVER

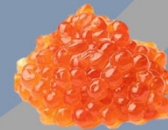
Yukon fall chum salmon runs also seem to be driven by factors early in life...

.....until 2016



~3 months

~1 year



OCEAN

Bering Sea Changes Affect Salmon

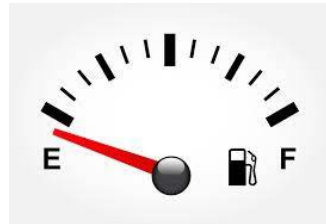
Stocks moving north



Different food available

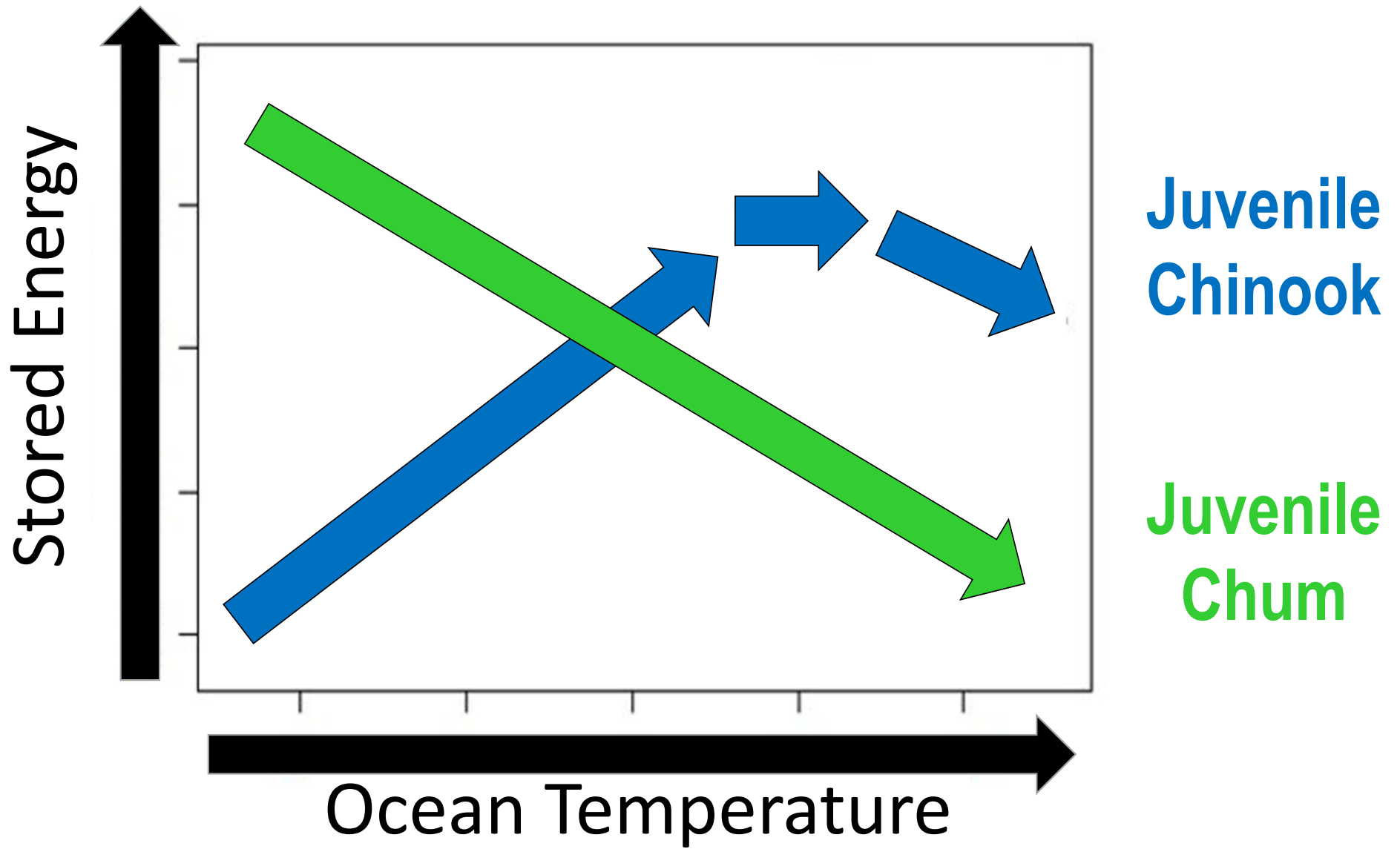


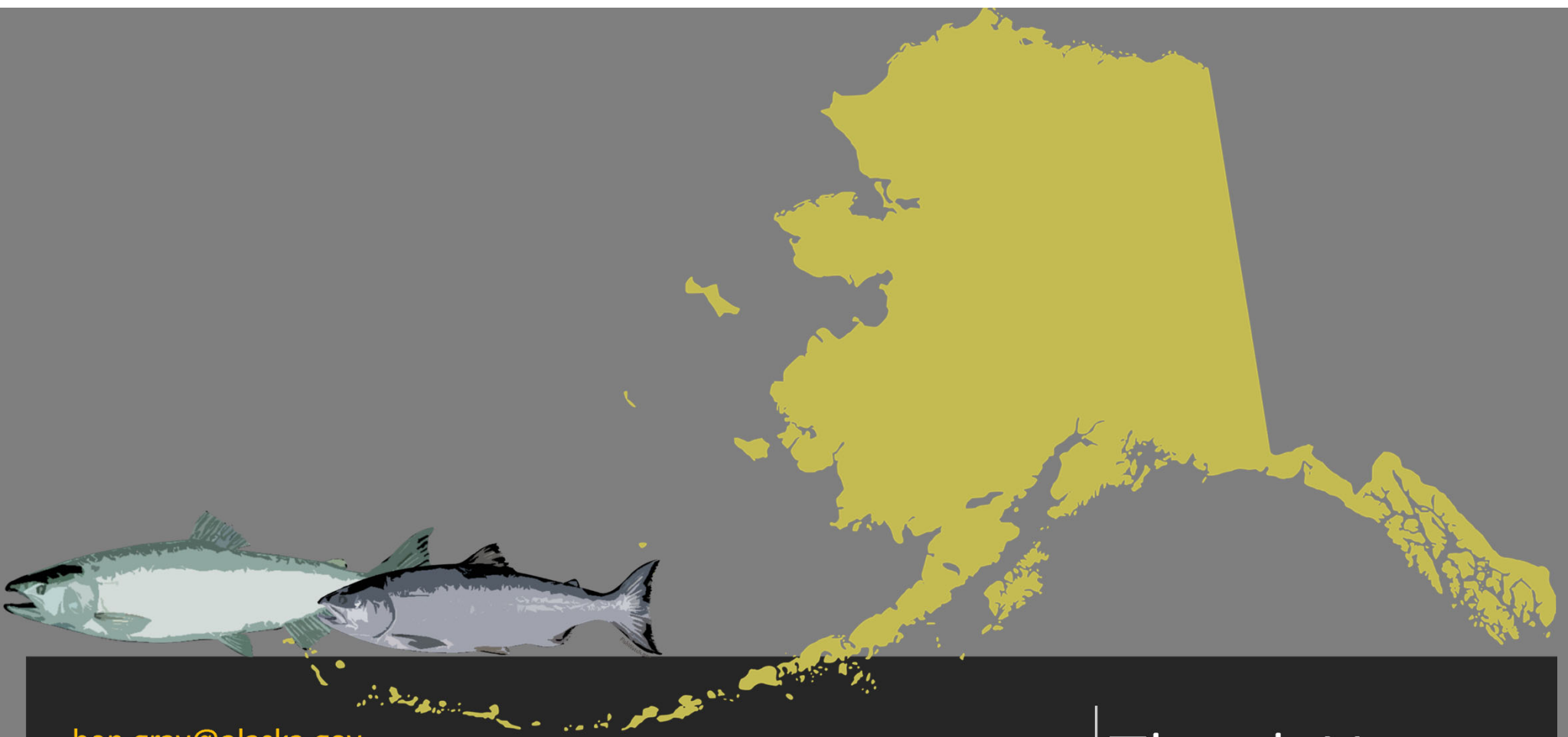
Empty stomachs



↑ growth early in marine life = ↑ jacks







ben.gray@alaska.gov

<https://www.facebook.com/ADFGUnderseaWorldOfSalmonAndSharks>

Thank You



Box 927, Bethel, AK 99559
(907)543-2608 (907)543-2639 FAX

**Kuskokwim River Salmon Management Working Group
ONC Preseason Report
April 29th, 2022**

Inseason Harvest Monitoring

It is almost salmon fishing season, and this summer ONC will again be conducting the inseason harvest monitoring project! ONC Fisheries staff will be out at the Bethel boat harbor and Bethel area fish camps surveying fishers about their salmon catch, needs, and any comments/information fishers want to share with inseason managers. Data collected in this project provides reliable quantitative estimates of salmon harvests and documents the extent that subsistence fish are shared among the people of the lower Kuskokwim River. Weekly updates will be provided by ONC staff at the Kuskokwim River Salmon Management Working Group meetings throughout the summer and made available through our Facebook page (*Orutsararmiut Native Council Fisheries*).

In 2020 and 2021, our Fisheries staff had reached out to fish camps to request permission to visit and conduct surveys while taking COVID-19 precautionary measures. Our staff will not be doing this again this year, however, if your family has concerns about COVID-19, please feel free to contact us and we can make arrangements.

Chinook Salmon Age-Sex-Length Sampling Program

ONC will continue collecting information about Chinook salmon age-sex-length (ASL) data in collaboration with ADF&G. To gather this data, ONC will be recruiting local fishers in Bethel to take the length, sex, and scales from their harvest of Chinook salmon. If you would like to participate in Chinook ASL collection efforts and receive \$5 per Chinook salmon you sample, contact ONC Fisheries at 545-6001! In years past, some people have earned up to \$600 from sampling their Chinook salmon catches. We are continuing recruitment efforts at the Bethel boat harbor, in the community, and at Bethel area fish camps.

Chinook Salmon Otolith Collection

In addition, ONC will also be conducting Chinook salmon otolith sampling this summer in collaboration with the University of Washington and ADF&G. By analyzing salmon ear stones — called the otolith — scientists can learn that different parts of large watersheds are hot spots for salmon production and growth, and these favorable locations change year to year depending on how climate conditions interact with the landscape to impact the value of habitats for salmon.

Fish Distribution

ONC will continue to deliver fish caught by the ADF&G Bethel Test Fishery (BTF) to local elders (55+ years), disabled, and widowed within the Bethel community. Arrangements can be made to deliver fish outside of Bethel. If you are an Elder, disabled, or widowed in Bethel or know someone who is, please contact ONC Fisheries at 545-6001 to be added to the fish distribution list.

Other Projects

ONC Fisheries Staff will also be involved with ADF&G's Kuskokwim River Sonar and Bethel Test Fishery, the ONC Science & Culture Camp, and the Indigenizing Salmon Management (ISM) project during the summer of 2022. If you would like to know more about ONC Fisheries Department's involvement in these projects please contact us!



Box 927, Bethel, AK 99559
(907)543-2608 (907)543-2639 FAX

ADF&G Board of Fisheries Proposals

ONC has concerns in the disparity of chum salmon harvest between Area M commercial fisheries and subsistence harvests on the Kuskokwim and Yukon Rivers. ONC's proposals and emergency petitions aim to protect migrating Arctic-Yukon-Kuskokwim chum salmon in Area M June commercial fisheries. ONC proposals that BOF will consider for 2023 include:

1. Establishing a harvest limit for chum, not to exceed 280,000 fish.
2. Limiting harvest periods of the June fishery from 416 hours to 100 hours.
3. Increase accountability of the State's June commercial fishery by request in the Board of Fisheries to require onboard monitors in the June commercial fishery.

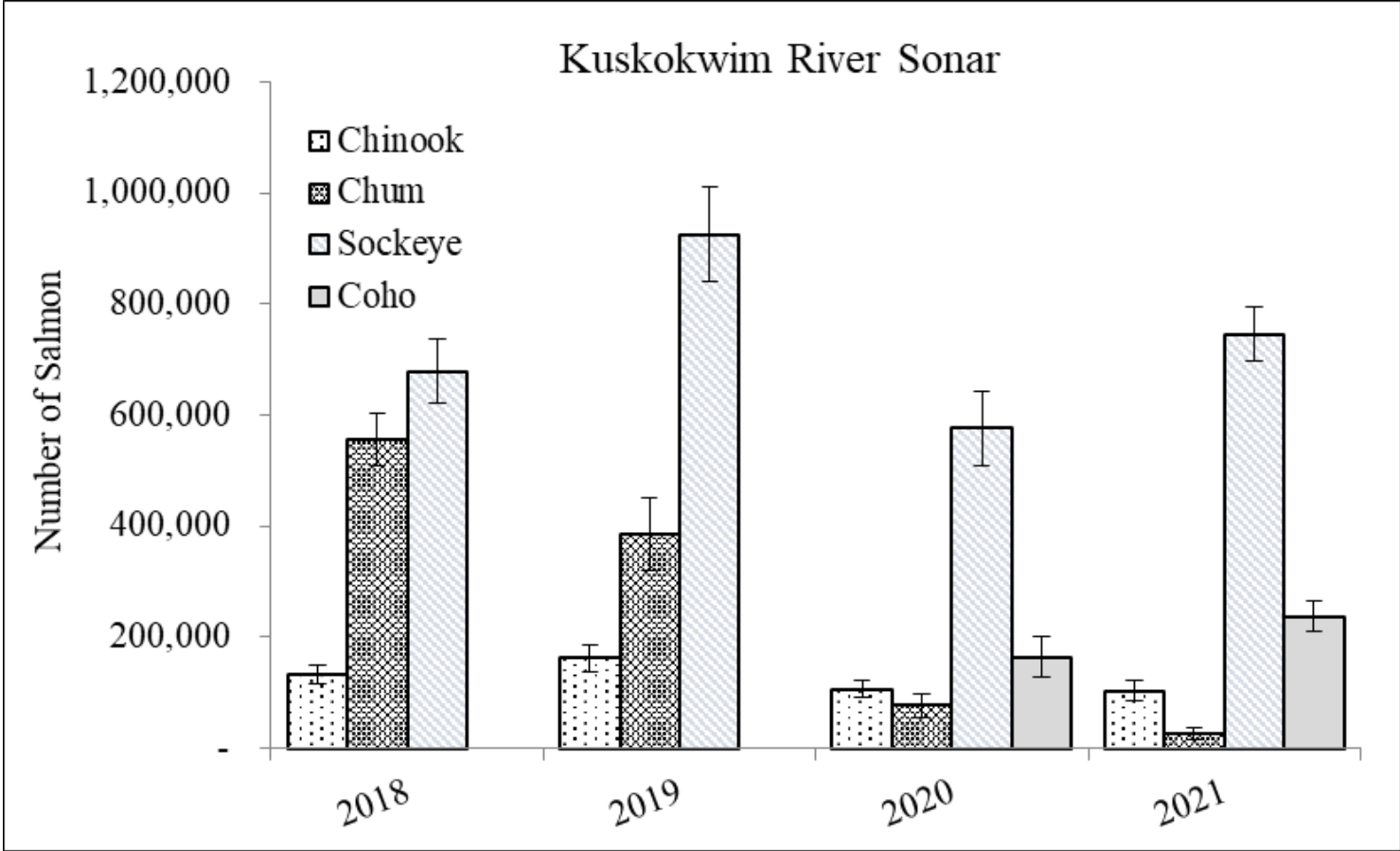
Additionally, ONC requested BOF to consider 2 emergency petitions to set harvest limits and restrict harvest times to go into effect in 2022.

Kuskokwim River Salmon Assessment

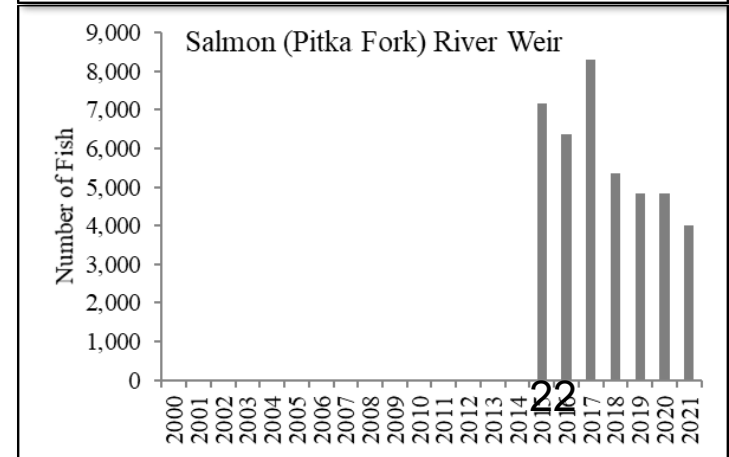
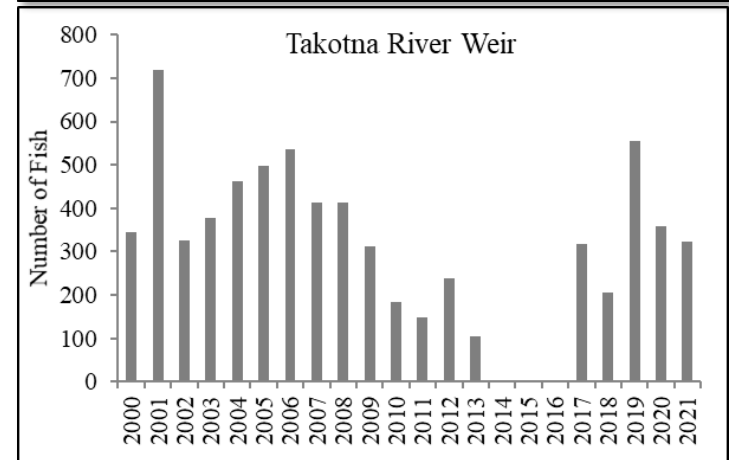
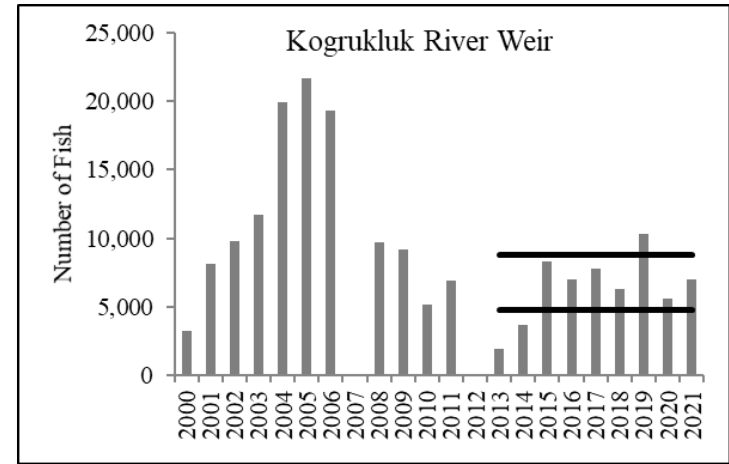
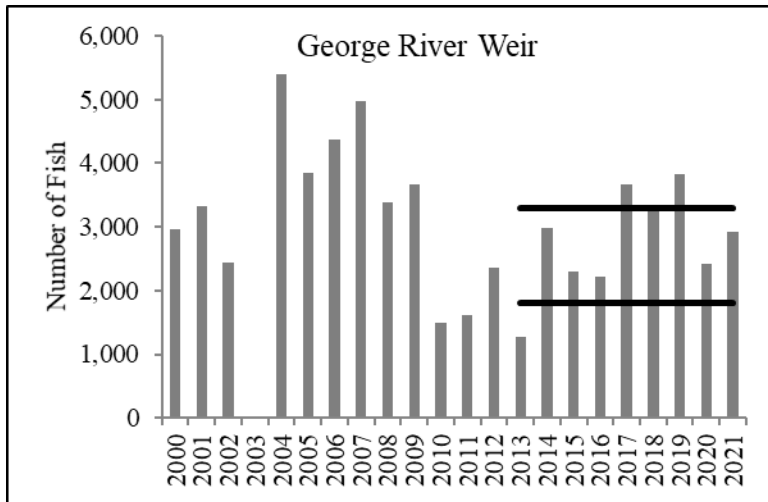
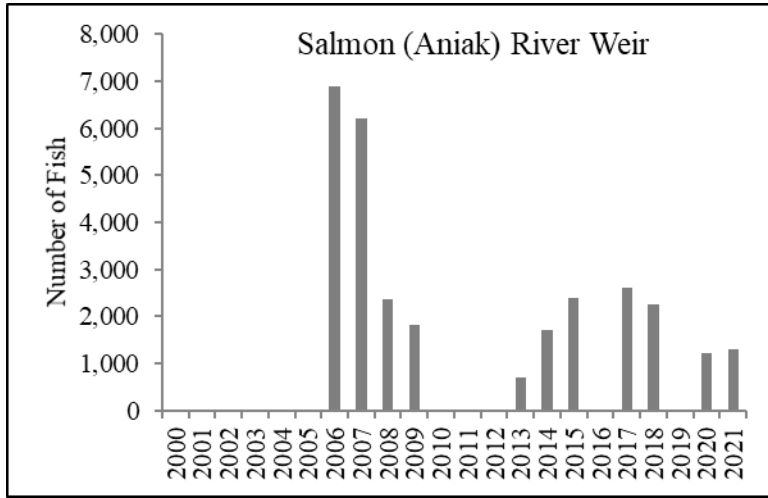


**Spring 2022 Working Group
Sean Larson
Alaska Dept. Fish and Game**

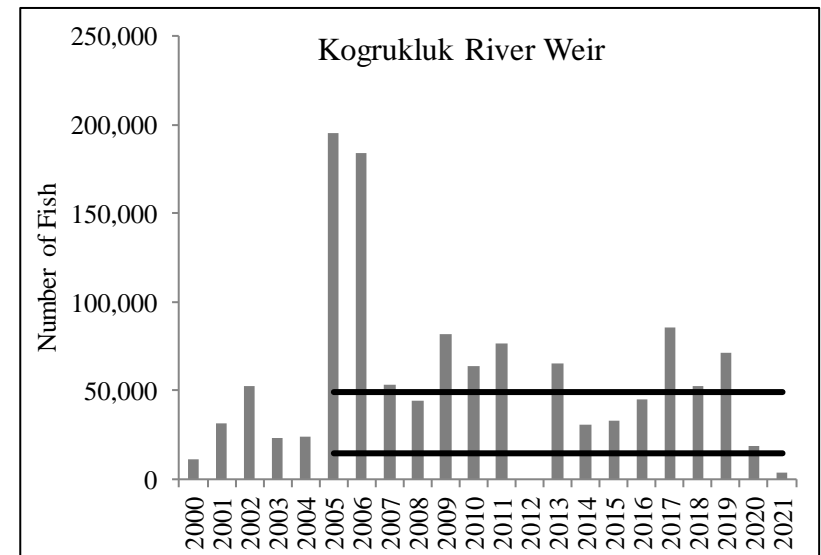
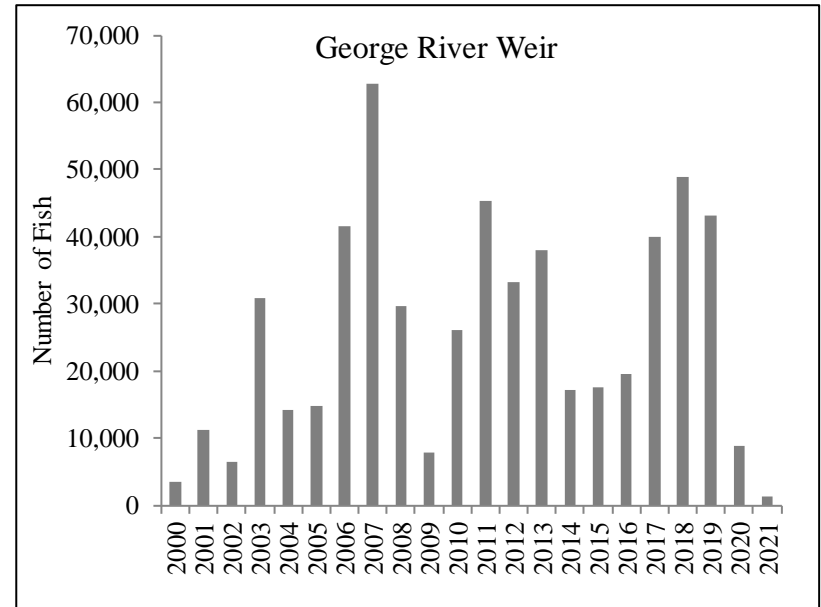
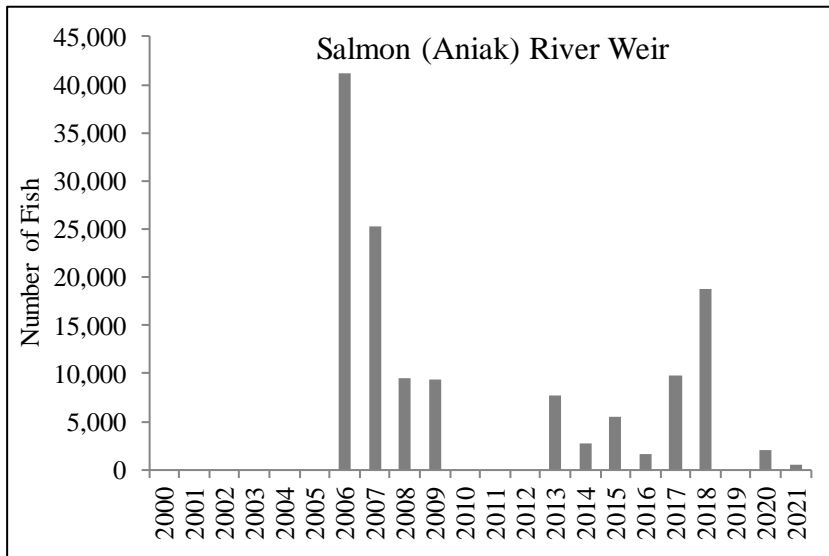
Sonar Results



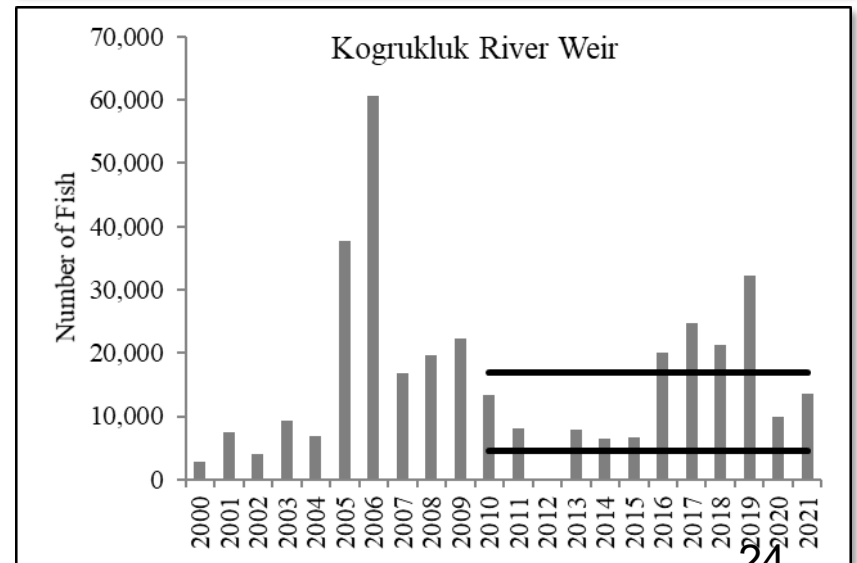
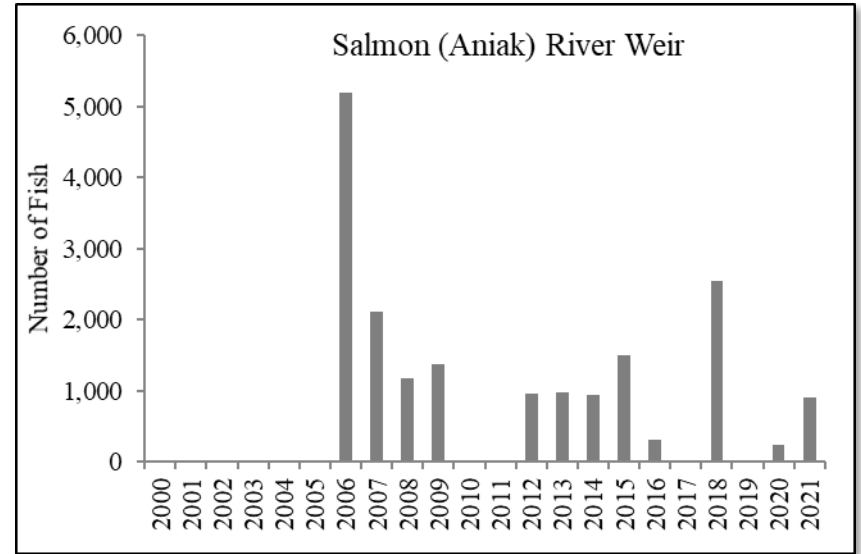
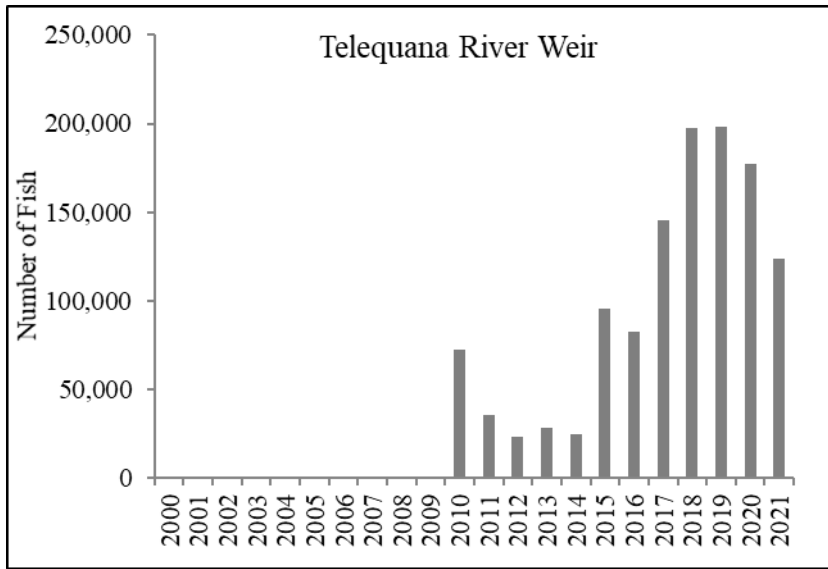
Chinook Salmon



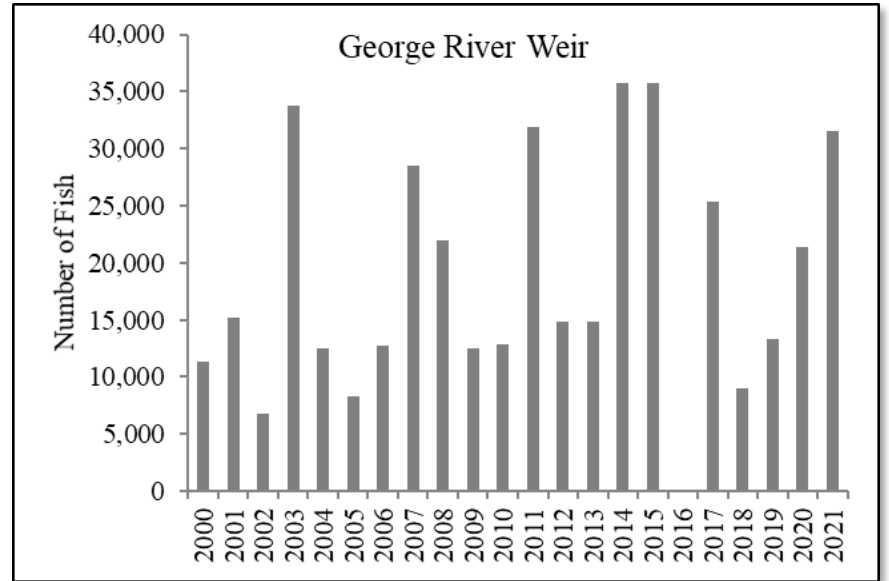
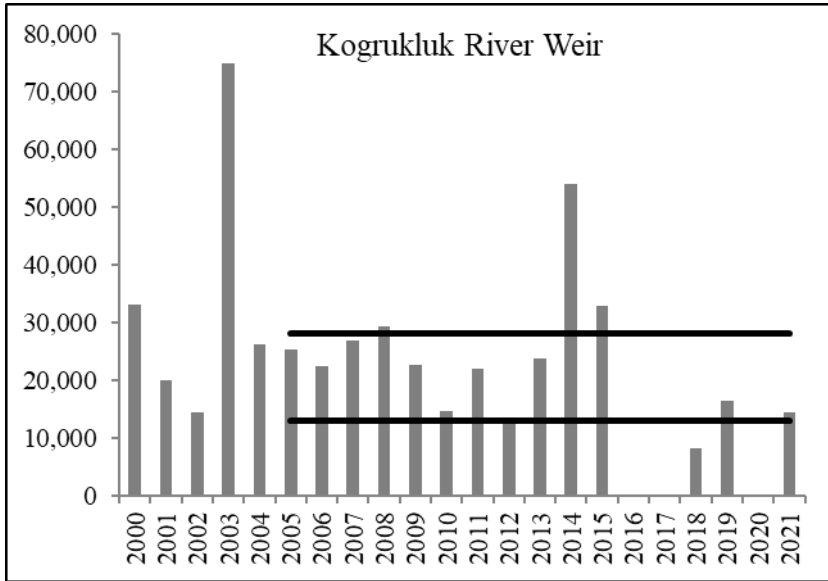
Chum Salmon



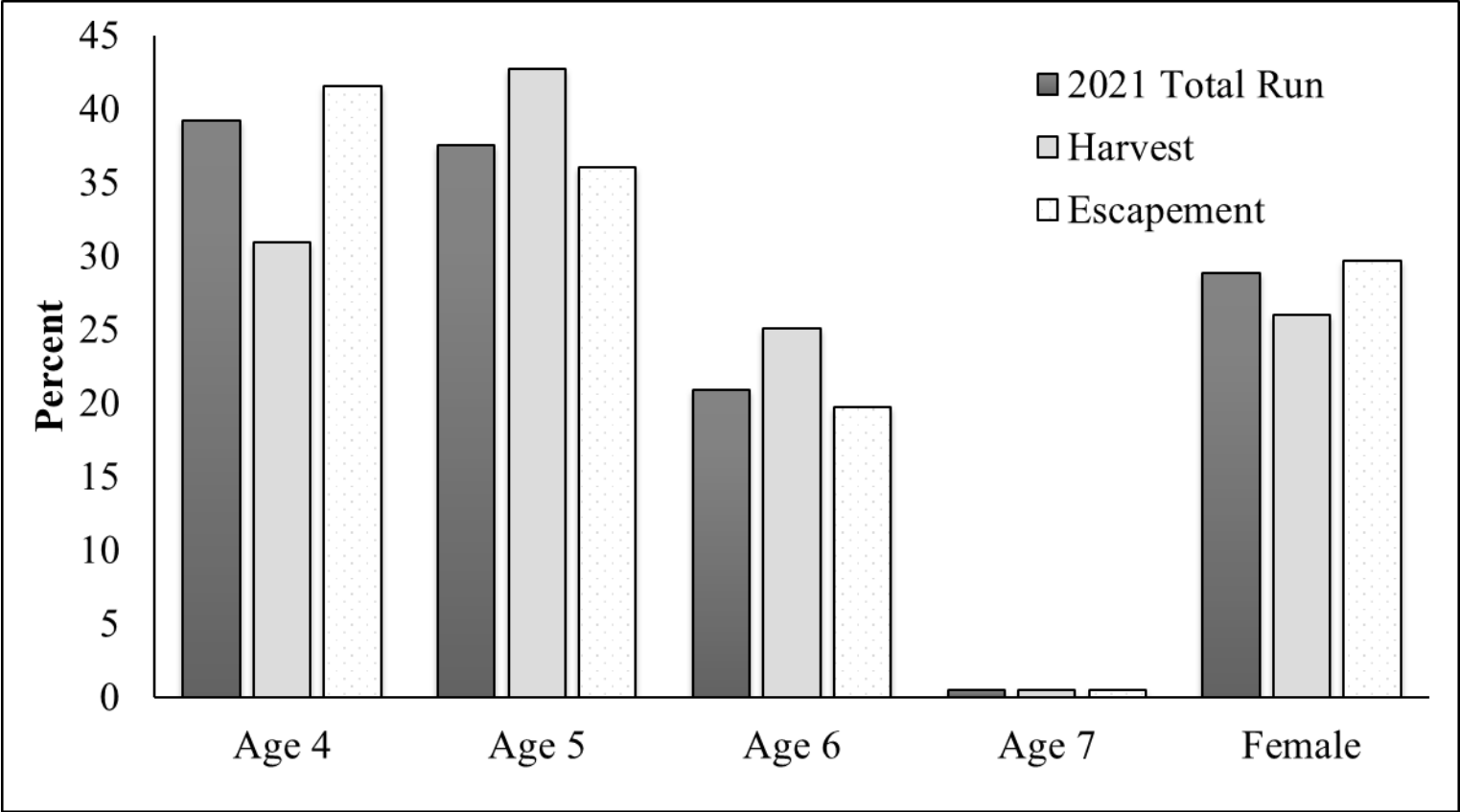
Sockeye Salmon



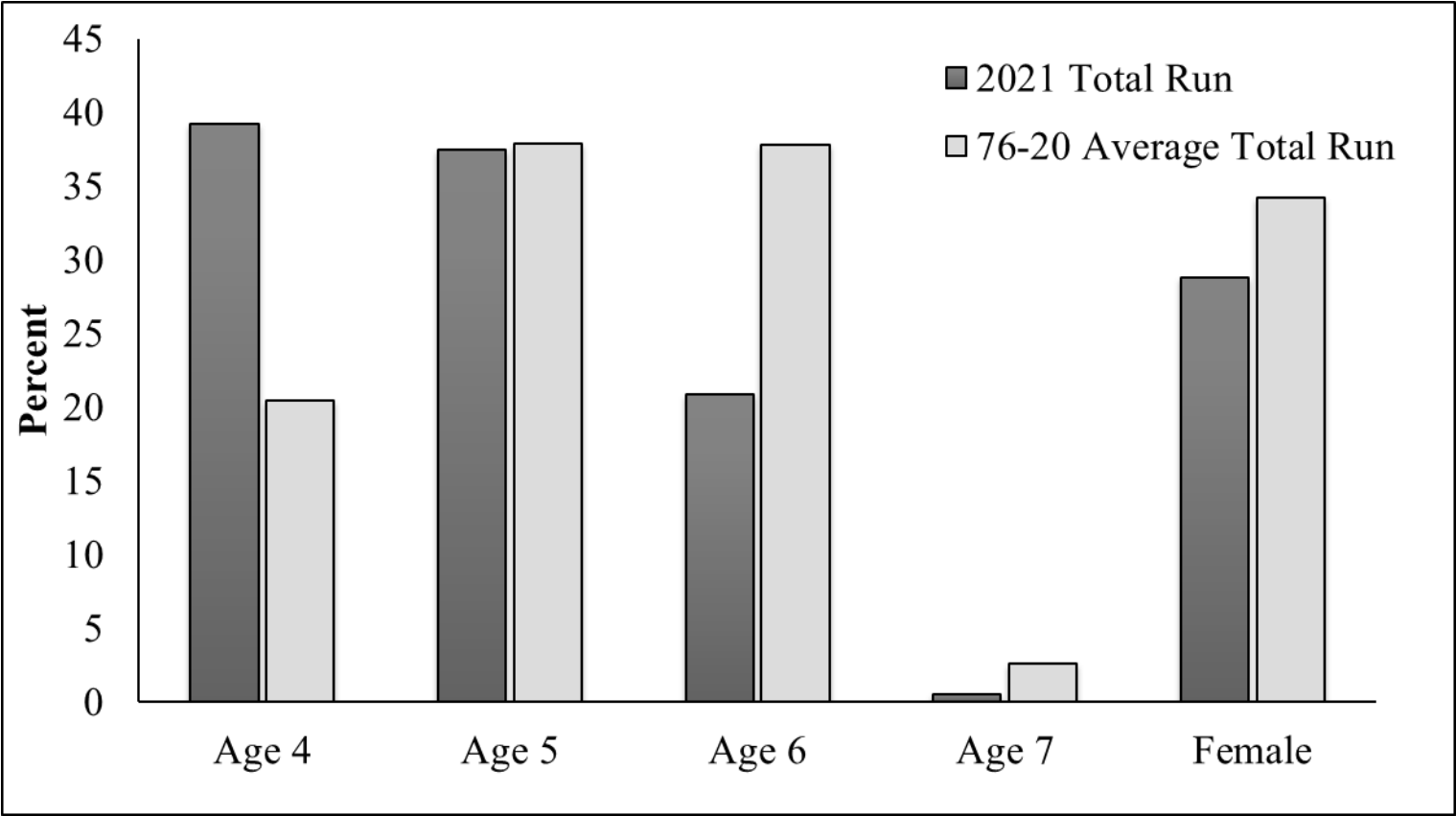
Coho Salmon



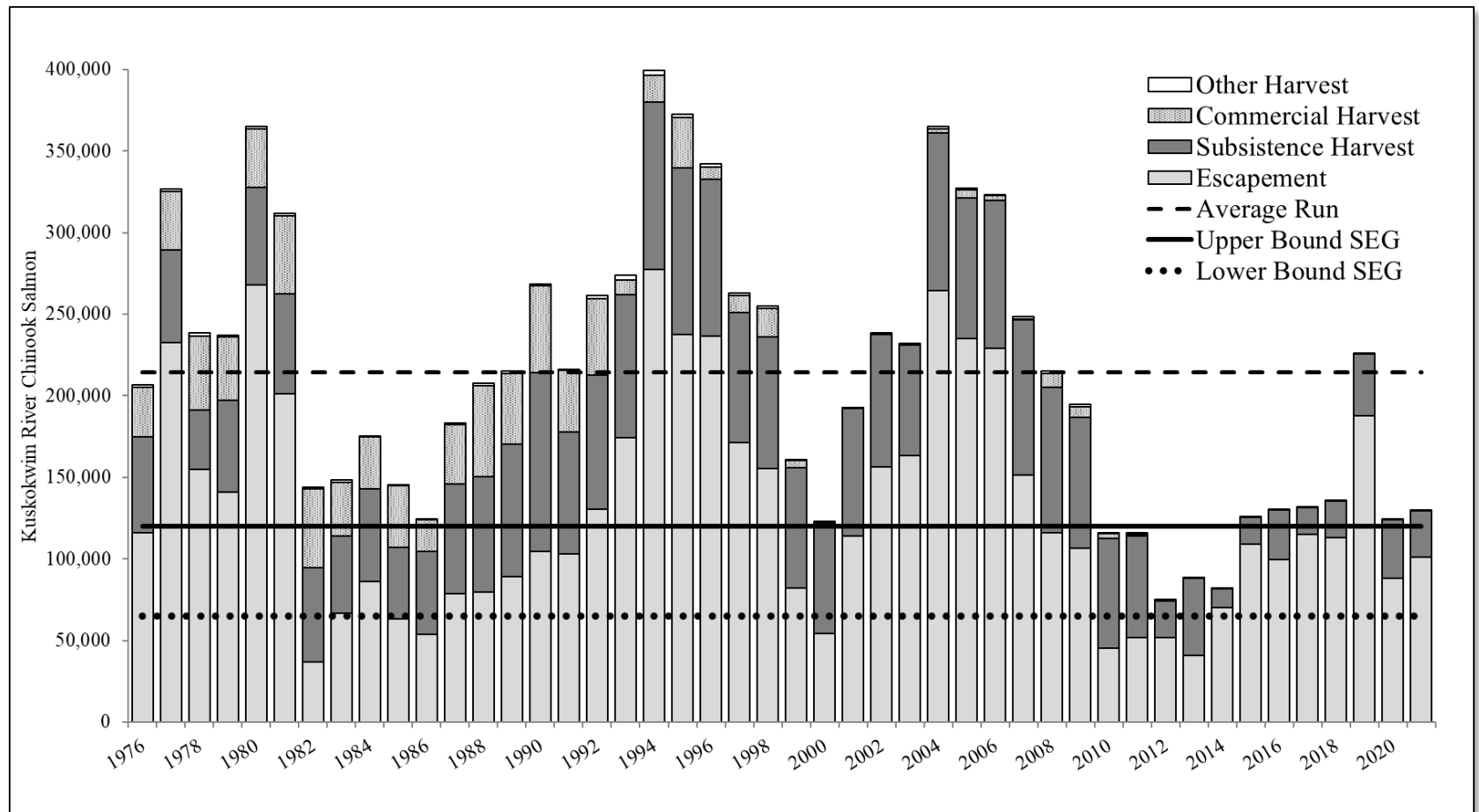
Chinook Salmon - Age/Sex Composition



Chinook Salmon - Age/Sex Composition

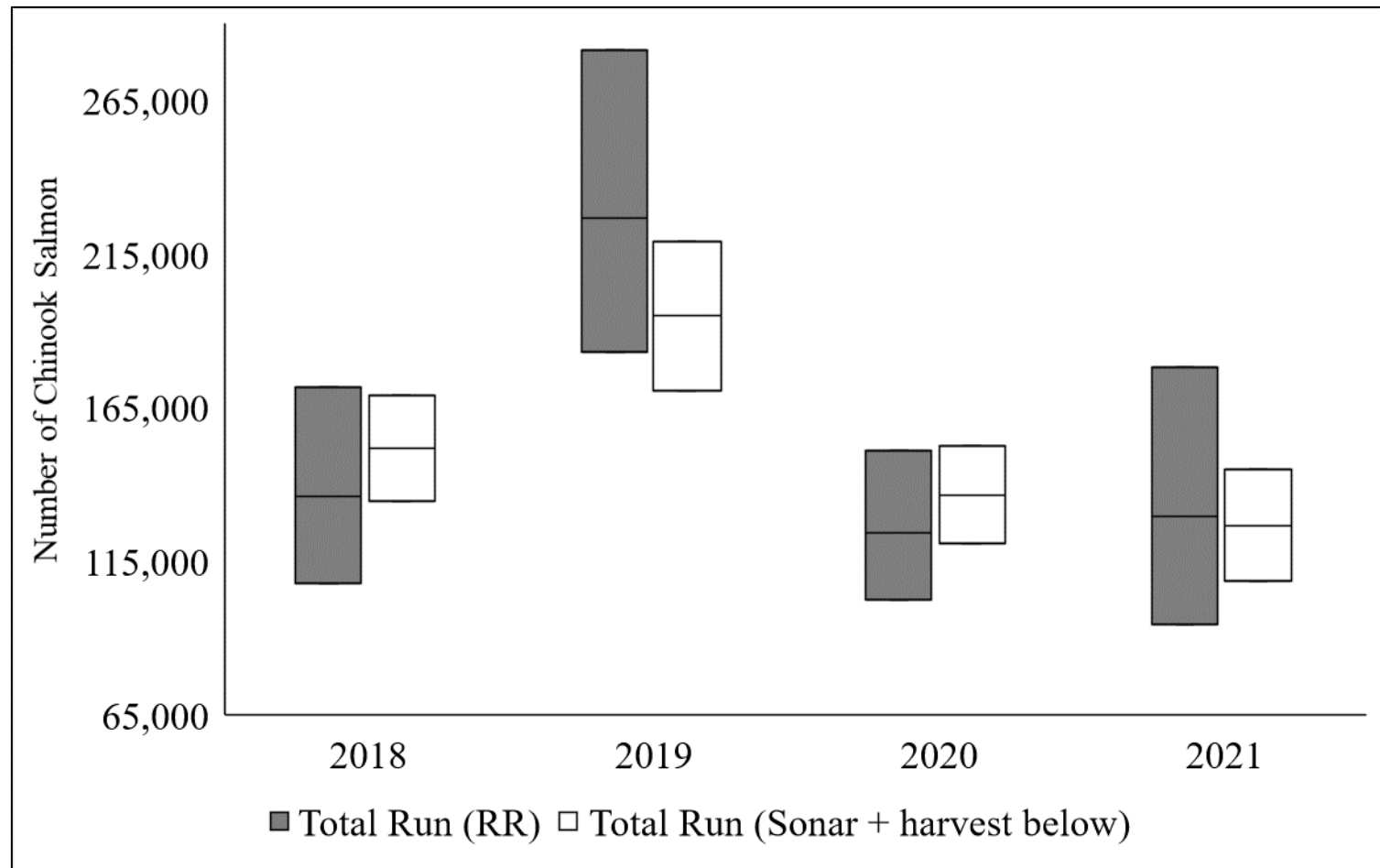


Chinook Salmon Run Reconstruction

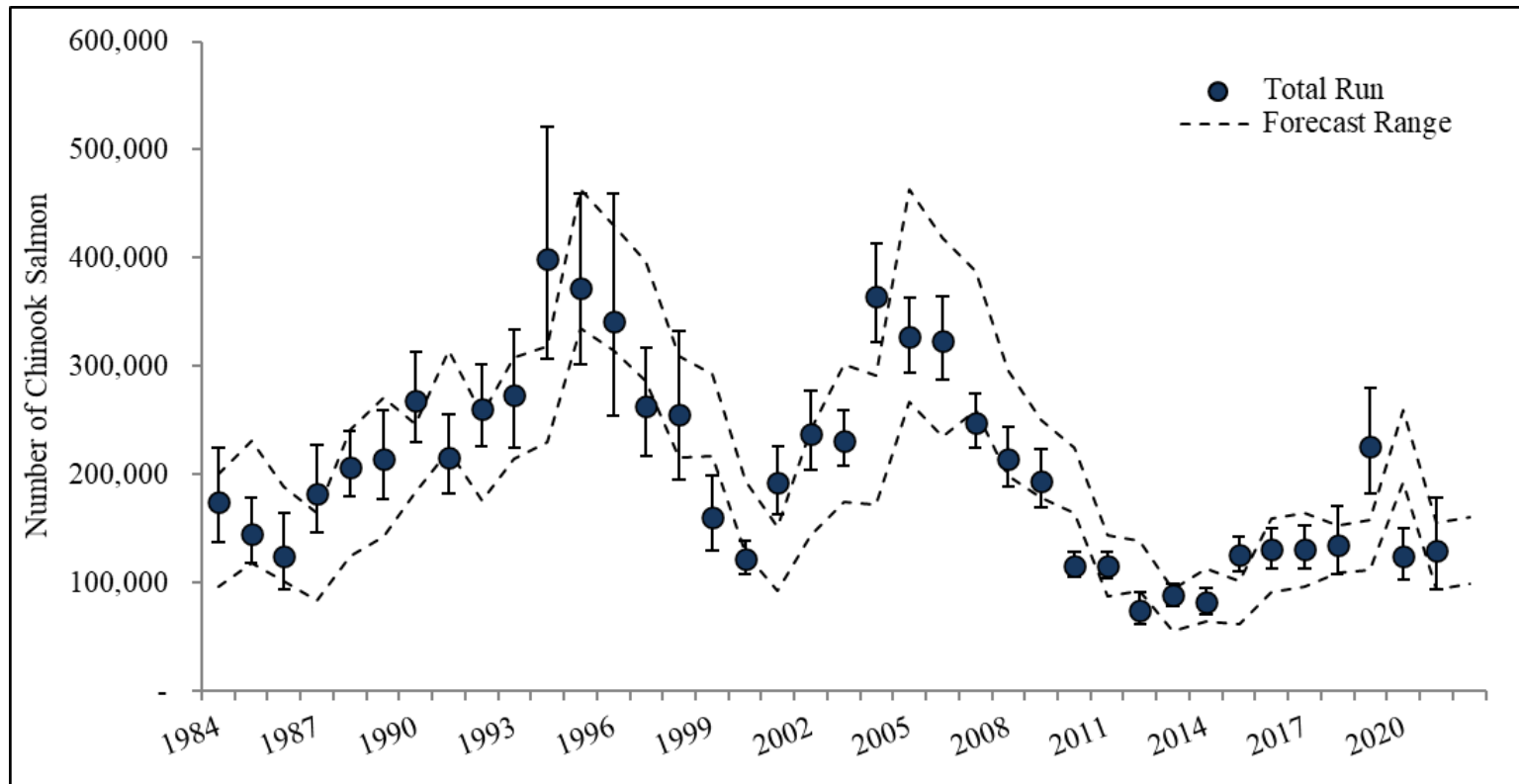


- Total Run Size – 130,000 (95% CI: 94,000–178,000)
- Total Escapement – 101,000 (95% CI: 66,000–149,000)
- Total Harvest – 28,000 (95% CI 26,000–31,000)

Run Reconstruction vs Sonar



Chinook Salmon Forecast



Forecast Range: 99,000–161,000

2022 Assessment Projects

Project	Location	Organization
<u>Test Fishery</u>		
Bethel Test Fishery	Bethel	ADF&G
Aniak Test Fishery	Aniak	Napaimute
<u>Mainstem</u>		
Sonar	Bethel	ADF&G/ONC
<u>Harvest</u>		
Subsistence Surveys and ASL	Bethel	ONC/ADF&G
Subsistence Surveys and ASL	Lower River	KRITFC
<u>Weir</u>		
Kwethluk River	Lower River	USFWS/Kwethluk
Salmon (Aniak) River	Middle River	NVN
George River	Middle River	ADF&G
Kogruklu River	Middle River	ADF&G
Telaquana River	Upper River	NPS
Takotna River	Upper River	KRITFC
Salmon (Pitka) Fork	Upper River	ADF&G/MTNT
<u>Air Survey</u>	Drainage	ADF&G

Thank you collaborators!

Summary Report Card

- Escapement Goals
 - Chinook: All goals met 😊
 - Coho and Sockeye: All goals met 😊
 - Chum: Goal *not* met ☹️
- Ages
 - Percentage of age-4 Chinook salmon was above average
 - Percentage of age-6 Chinook salmon was below average
- Total Run Size ~ 130,000
 - Below the 215,000 fish average
- Total Escapement ~ 101,000
- Total Harvest ~ 28,000
- Forecast Range ~ 99,000 – 161,000

Fishers... *thank you!*



2022 Kuskokwim River Assessment Projects

Overview:

Project	Location	Start Date	End Date	Species	Data Availability	Organization
<u>Test Fishery</u>						
Bethel Test Fishery	Bethel	June 01	August 20	K, C, R, S	Daily	ADF&G
Aniak Test Fishery	Aniak	June 01	July 15	K, C, R	Daily	NVN
<u>Mainstem</u>						
Sonar	Bethel	June 01	August 26	K, C, R, W, S	Daily	ADF&G/ONC
<u>Harvest</u>						
Subsistence Surveys	Bethel	May 29	July 15	K, C, R	Weekly	ONC/ADF&G
Subsistence Surveys	Lower River	June 12	Open	K, C, R, W	As needed	KRITFC
Subsistence ASL	Bethel	June 01	Open	K	End of season	ONC/ADF&G
Subsistence ASL	Lower River	June 02	Open	K	End of season	KRITFC
<u>Weir</u>						
Kwethluk River	Lower River	June 01	Sept. 10	K, C, R, S	Daily	USFWS/Kwethluk
Salmon (Aniak) River	Middle River	June 15	Sept. 20	K, C, S	Daily	NVN
George River	Middle River	June 15	Sept. 20	K, C, S	Daily	ADF&G
Kogruklu River	Holitna River	June 26	Sept. 20	K, C, R, S	Daily	ADF&G
Telaquana River	Stony River	July 03	August 15	R	Daily	NPS
Takotna River	Upper River	June 24	August 15	K, C	Daily	KRITFC
Salmon (Pitka) Fork	Upper River	June 20	August 15	K	Daily	ADF&G/MTNT
<u>Air Survey</u>						
	Drainage	July 17	August 05	K	End of season	ADF&G

Species Key: **K** = “King” or Chinook; **C** = chum; **R** = “Red” or sockeye; **S** = “Silver” or coho; **W** = whitefish.

Daily Assessment Document:

- USFWS and ADF&G will continue to produce a daily assessment document summarizing the most relevant inseason data about Chinook, chum, sockeye, and coho salmon run timing and abundance.
- This document will focus exclusively on inseason data from Bethel Test Fishery, Aniak Test Fishery, harvest estimates, and mainstem sonar.
- The assessment documents will be publicly available via email and posted online. ADF&G will distribute the document to the Kuskokwim River Salmon Management Working Group email distribution list. Contact Sean Larson (sean.larson@alaska.gov) or Nick Smith (nick.smith@alaska.gov) if you want to be added or removed from this list.

Project Descriptions:

- **Bethel Test Fishery** – ADF&G, Division of Commercial Fisheries will operate the Bethel Test Fishery in the same location and use the same methods as in prior years. This project will produce daily catch-per-unit-effort (CPUE) for Chinook, chum, sockeye, and coho salmon. Data will provide information about inseason run timing, relative abundance (e.g., species ratios), and run strength. Data will be included in the daily assessment update and posted to the ADF&G Fish Counts webpage by 10AM, Monday through Friday:
<http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakuskokwim.salmon#fishcounts>

Note: The top of the head will be removed from all Chinook salmon to collect otoliths (ear bones) for a separate study designed to determine where each fish was born.

- **Aniak Test Fishery** – Native Village of Napaimute will operate the Aniak Test Fishery in the same location and use the same methods as in 2015 – 2021. This project will produce daily catch-per-unit-effort (CPUE) for Chinook, chum, and sockeye salmon. Data will provide information about inseason run timing and relative abundance (e.g., species ratios). Data will be included in the daily assessment update.
- **Kuskokwim Sonar** – ADF&G, Division of Commercial Fisheries will operate sonar upriver from Bethel near the upper end of Church Slough and just downriver from the Kwethluk “Y”. Orutsarmiut Native Council (ONC) is a partner on this project and will assist with project operations in August. This project will produce daily inseason estimates of abundance for Chinook, chum, sockeye, coho, whitefish, and other species passing the sonar site. Total cumulative abundance with 95% confidence intervals will be estimated daily. Data will be included in the daily assessment update.
- **Subsistence Harvest Surveys** – There will be several overlapping and complimentary efforts to collect inseason information about subsistence harvest, catch, and effort. Information will be used to monitor fishing progress as the salmon run develops. In addition, detailed catch and effort information may be used by USFWS to estimate inseason subsistence harvest within specific areas of the Yukon Delta National Wildlife Refuge during specified fishery openers.
 - ONC – will conduct weekly fish camp surveys throughout the Bethel area similar to past years. Additional survey effort will be conducted at the Bethel boat harbor as needed and provided to USFWS for estimating inseason subsistence harvest. A summary of survey results will be presented weekly at scheduled Working Group meetings.
 - Kuskokwim River Intertribal Fish Commission (KRITFC) – will collect catch and effort information from several communities.
- **Subsistence Age-Sex-Length (ASL) Sampling** – As in past years, ONC will recruit and train subsistence fishers to collect scales, sex, and length data from Chinook salmon harvested by subsistence fishers in the Bethel area. KRITFC will also assist with collection of Chinook salmon ASL from lower river communities through their community monitoring program. ASL summaries will be generated post-season.

- **Weirs** – A total of 7 weirs will be operated (3 – ADF&G; 1–USFWS; 1 – NVN; 1 – NPS; 1 – KRITFC) to monitor salmon escapement throughout the lower, middle, and upper portions of the Kuskokwim River drainage. Final estimates of escapement for each location will be made post-season. Daily escapement counts will be updated on the ADF&G Fish Counts webpage daily by 10AM, Monday through Friday:
<http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareakuskokwim.salmon#fishcounts>
- **Aerial Surveys** – Surveys will be flown throughout select lower, middle, and upper river tributaries to index Chinook salmon escapement in late July. Aerial survey results will be provided post-season once surveys are completed.

2022 Kuskokwim River Management Outlook and Strategy

Nick Smith ADF&G

What Guides Preseason Chinook Discussions?

- KRSMWG
- Drainage wide escapement goal of 65,000–120,000 Chinook salmon
- Forecast (99,000–161,000 fish)
 - Recent performance
- Management Plan
 - Developed through BOF process over many cycles
- Chinook salmon ANS
67,200–109,800

Inseason Chinook Management

Assessment Tools

- Preseason forecast
- Bethel Test Fishery
- Aniak Test Fishery
- Sonar
- Inseason subsistence harvest reports

Management Toolbox

- Management Plan
- Time and area authority
- Different gear types (gillnets, fish wheels, beach seines, dip nets, and hook and line)
- Gillnet mesh size and length restrictions
- Upriver Household Permits

Front
End
Closure

Start Date –
June 11

- **Mainstem river closed to gillnets**
 - Roll closure upriver
 - At least one weekly 6” set gillnet fishing period
 - Selective legal methods with no King retention
- **Lower Kuskokwim River spawning tributaries**
 - Closed to gillnets
 - Selective legal methods with no King retention
- **Non-spawning tributaries**
 - Closed to gillnets from their confluence with the Kuskokwim River upstream 100 yards
- **Sport fishing for King salmon** closed by Emergency Order from May 1 through June 11 in alignment with the management plan

Review of 2021 actions

1. Starting Date(s) of Front-End Closure

- Roll Closure Upriver
 - Section 1 – **June 1**
 - Section 2 – **June 1**
 - Section 3 – **June 1**
 - Section 4 – **June 9**
 - Section 5 – **June 11**

2. Front-End Setnet 6" Fishing Periods

- One or more weekly
 - Dates - **June 2, 5, 9**
- Duration of fishing periods - **16 hrs**

3. Non-Spawning Tributaries

- **Closed to gillnets from their confluence with the Kuskokwim River upstream 100 yards.**

4. Selective Gear Types

- Allow use with King release
 - Mainstem - **YES**
 - Spawning Tributaries - **YES**

Working
Group
Decisions
and Input-
Front End

1. Starting Date (s) of Front-End Closure

- Roll Closure Upriver?
 - Section 1 -
 - Section 2 -
 - Section 3 -
 - Section 4 -
 - Section 5 -

2. Front-End Setnet Fishing Periods

- One or more weekly?
 - Dates - ?
- Duration of fishing periods? (6, 12, 16, 24hr...etc)

3. Non-Spawning Tributaries

- Close to gillnets from their confluence with the Kuskokwim River upstream 100 yards?

4. Selective Gear Types

- Allow use with Chinook Release
 - Mainstem?
 - Spawning Tributaries?

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<https://www.facebook.com/KuskoRiverFishingADFG/>



Questions?