

# Yukon River Fall Chum and Coho Salmon Stock Status and Fisheries Overview

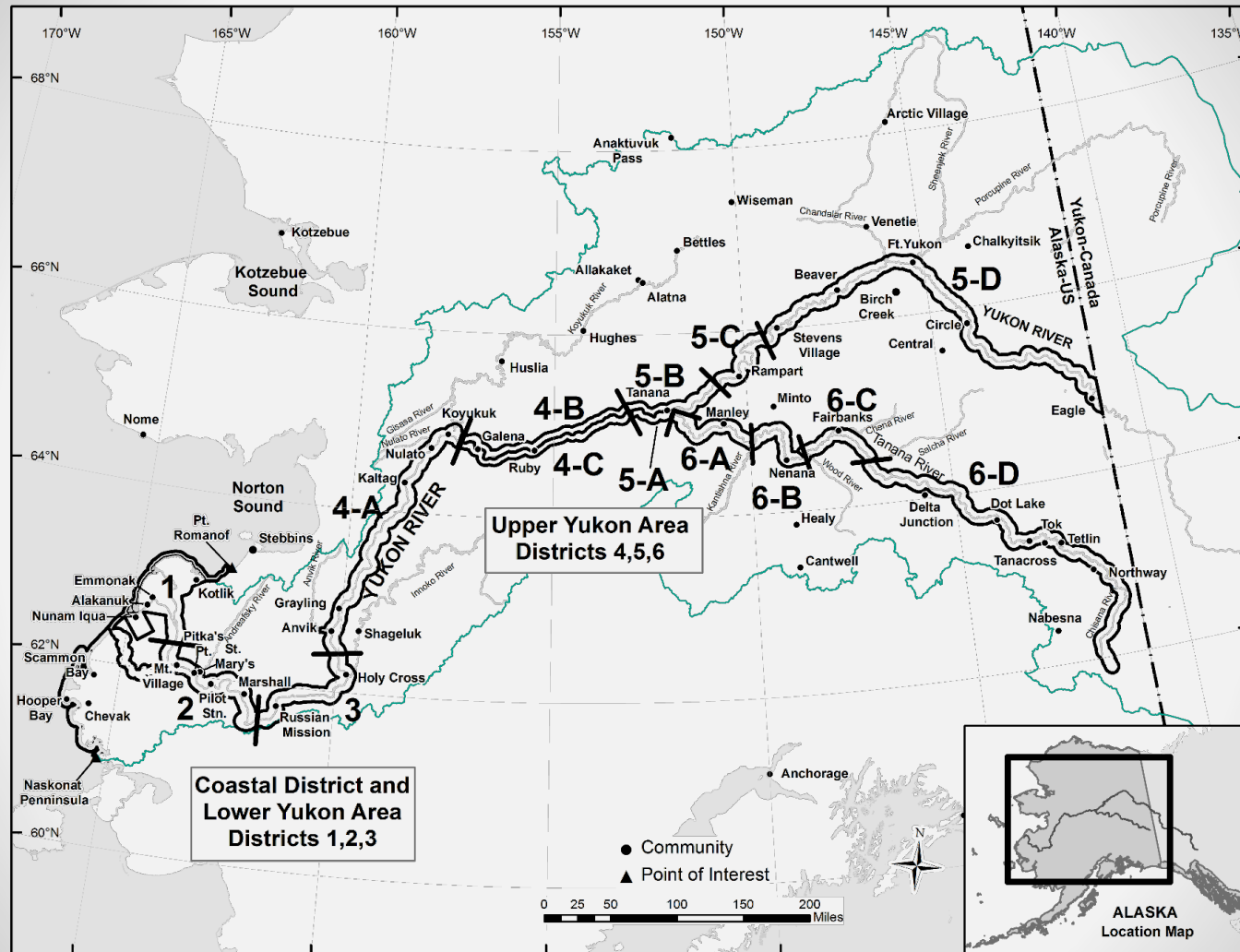
A Report to the Alaska Board of Fisheries



Presentation by Christy Gleason and Bonnie Borba  
January 2023

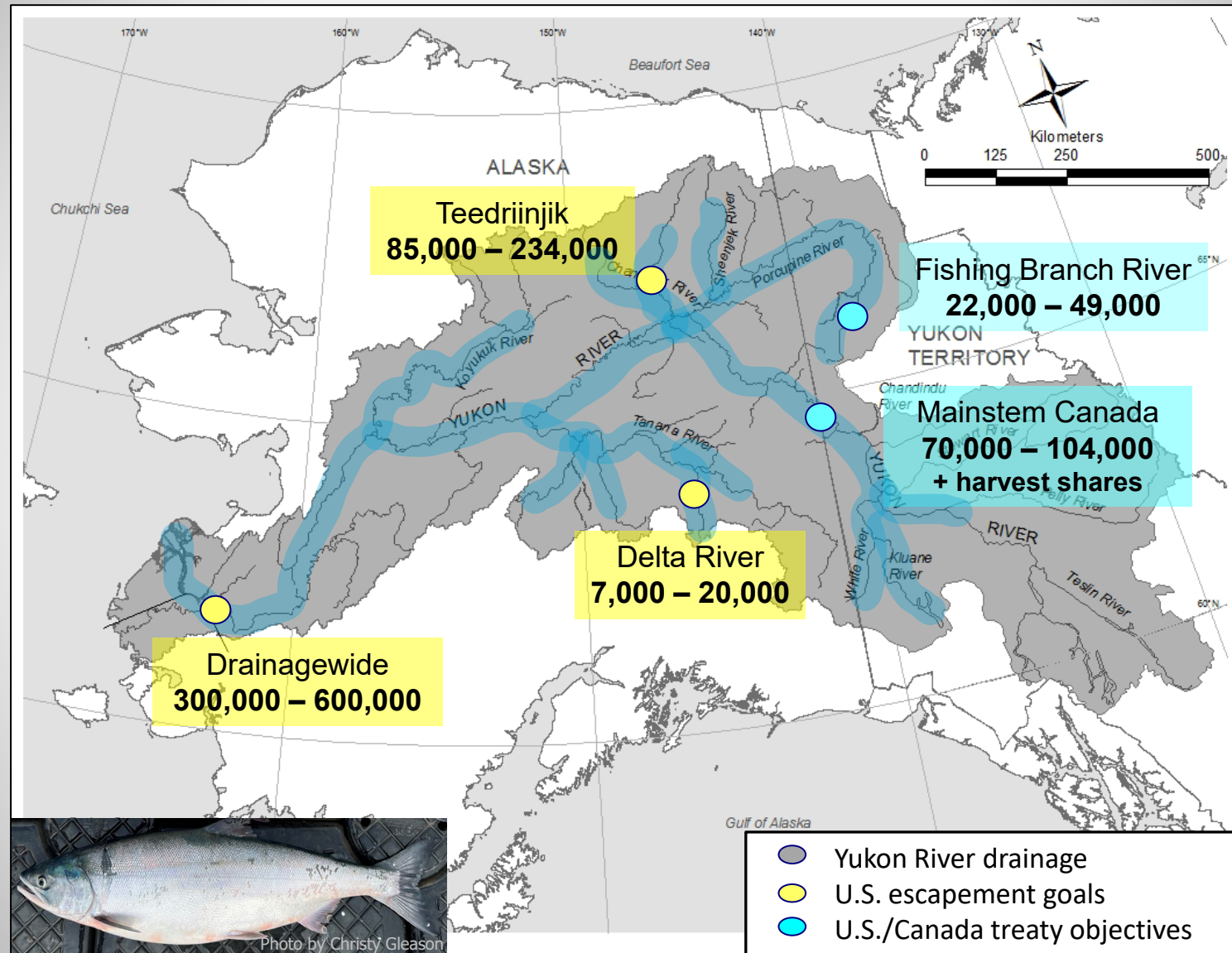
R3: Oral Report, tab 12  
R3: Written Reports, tabs 4 & 5

# Yukon Management Area



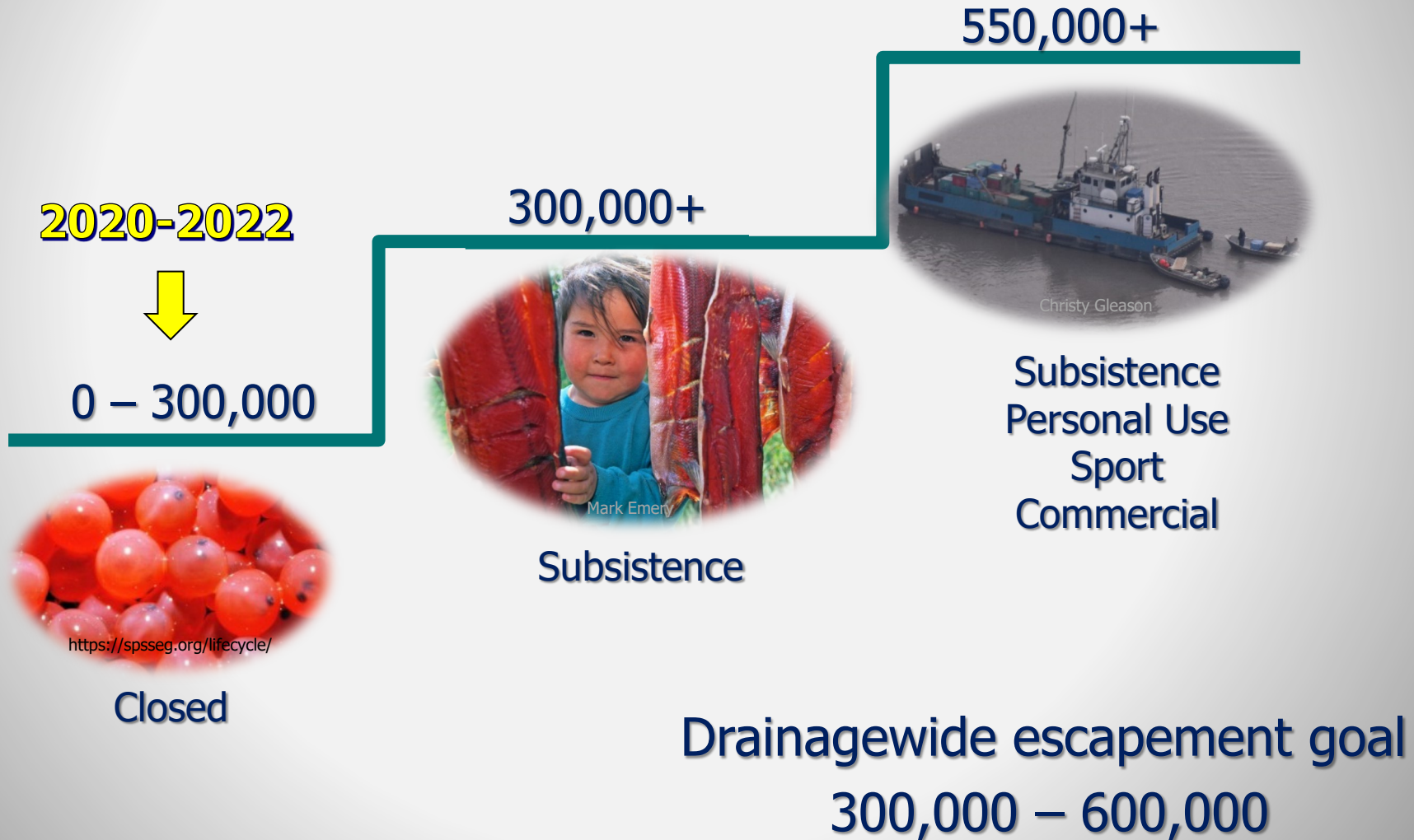
# Over 55 communities

# Fall Chum Salmon Management Objectives





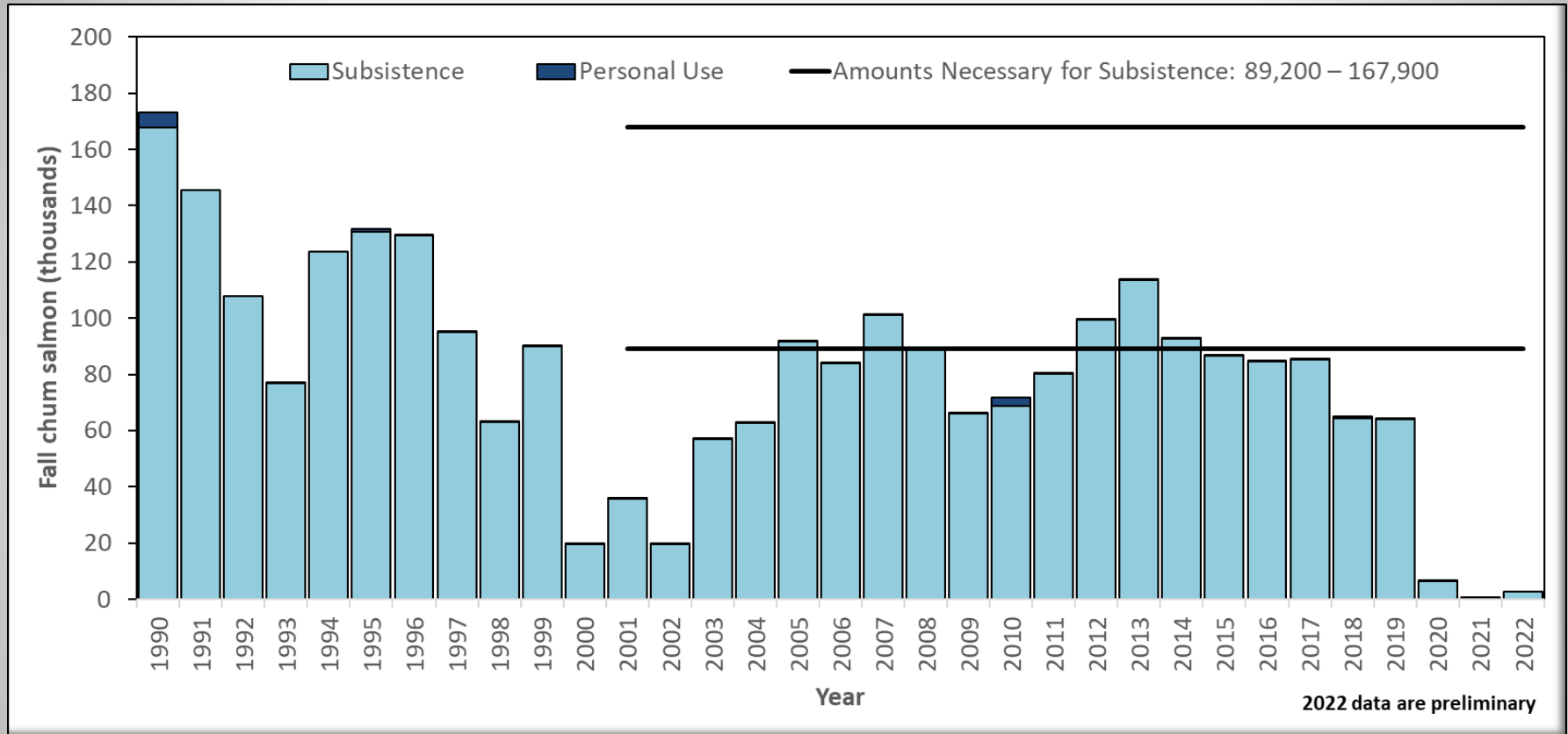
# Yukon River Drainage Fall Chum Salmon Management Plan



# Subsistence Fisheries Management

- Districts switch to fall season management based on fall chum salmon migration timing
- Regulatory schedules with 7.5-inch or less mesh gillnets and fish wheels
- From 2012 to 2019, liberalized to 7 days per week
- Fishing restrictions in the Porcupine River since 2015
- **Fall chum salmon closures 2020 to 2022**
  - Retention of nonsalmon and coho, sockeye, and pink salmon from selective gear (dip nets, manned fish wheels, and hook and line). Required release of chum and king salmon.
  - Nonsalmon fishing open with 4-inch or smaller mesh gillnets (60 feet or shorter length) and other gear

# Fall Chum Salmon Subsistence and Personal Use Harvests



- 2020–2022 average less than 3,000
- 2015–2019 average 77,000

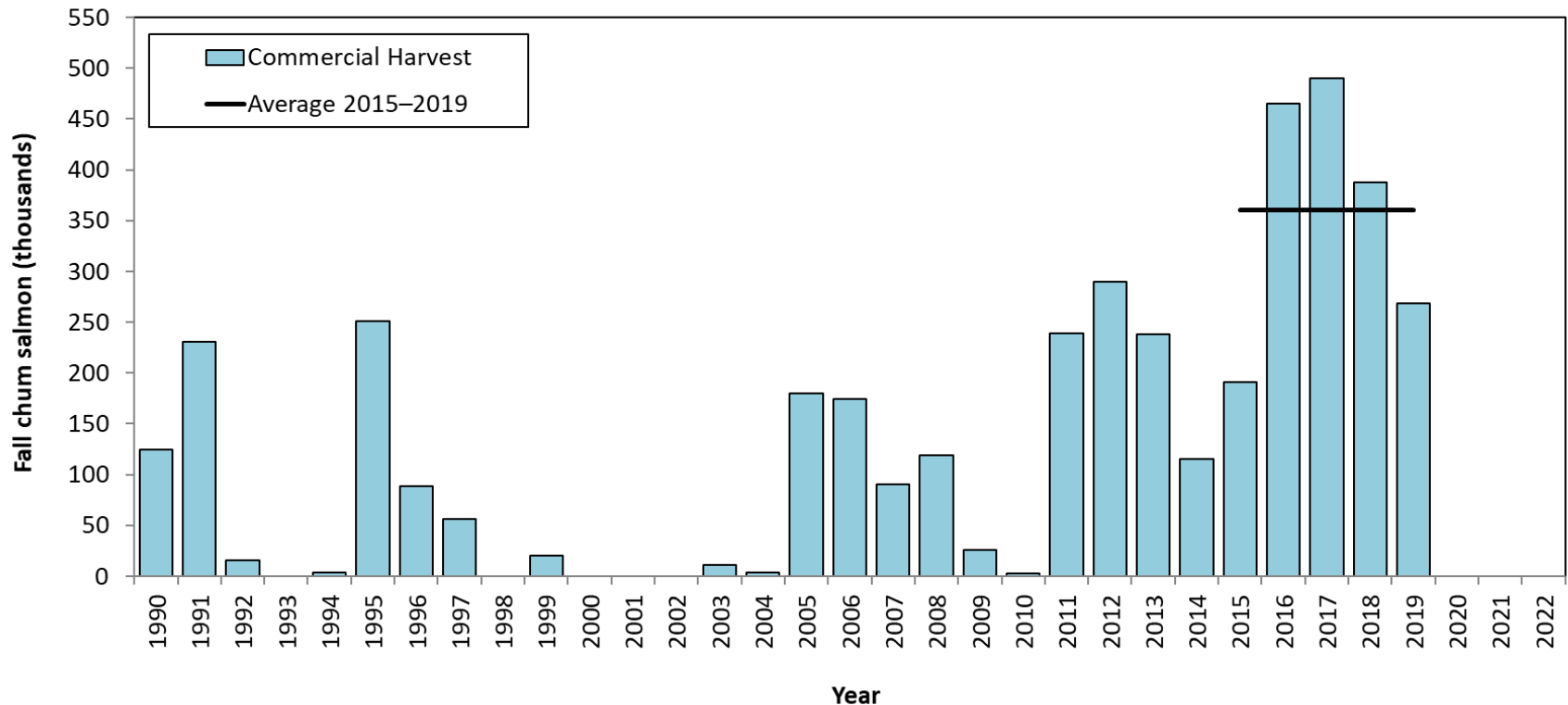


# Commercial Fisheries Management

- Fall chum salmon directed commercial fishery
  - Two period/week schedule
  - 6-inch or smaller mesh gillnets and fish wheels
- Optional directed coho salmon fishery late in season
- Commercial fisheries occurred in 2019 and years prior
- **Closures 2020 to 2022**



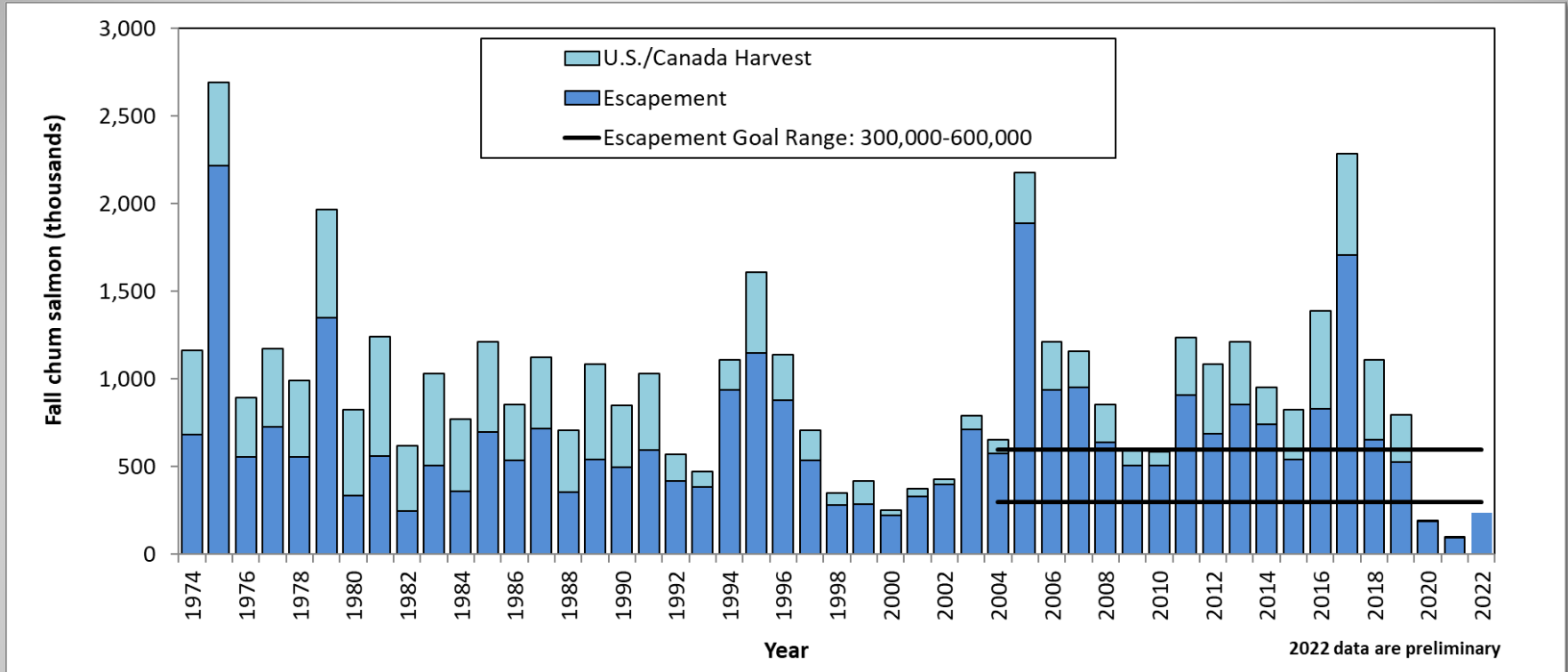
# Fall Chum Salmon Commercial Harvests



- Commercial fishing closures in 2020–2022
- 2015–2019 average is 351,000

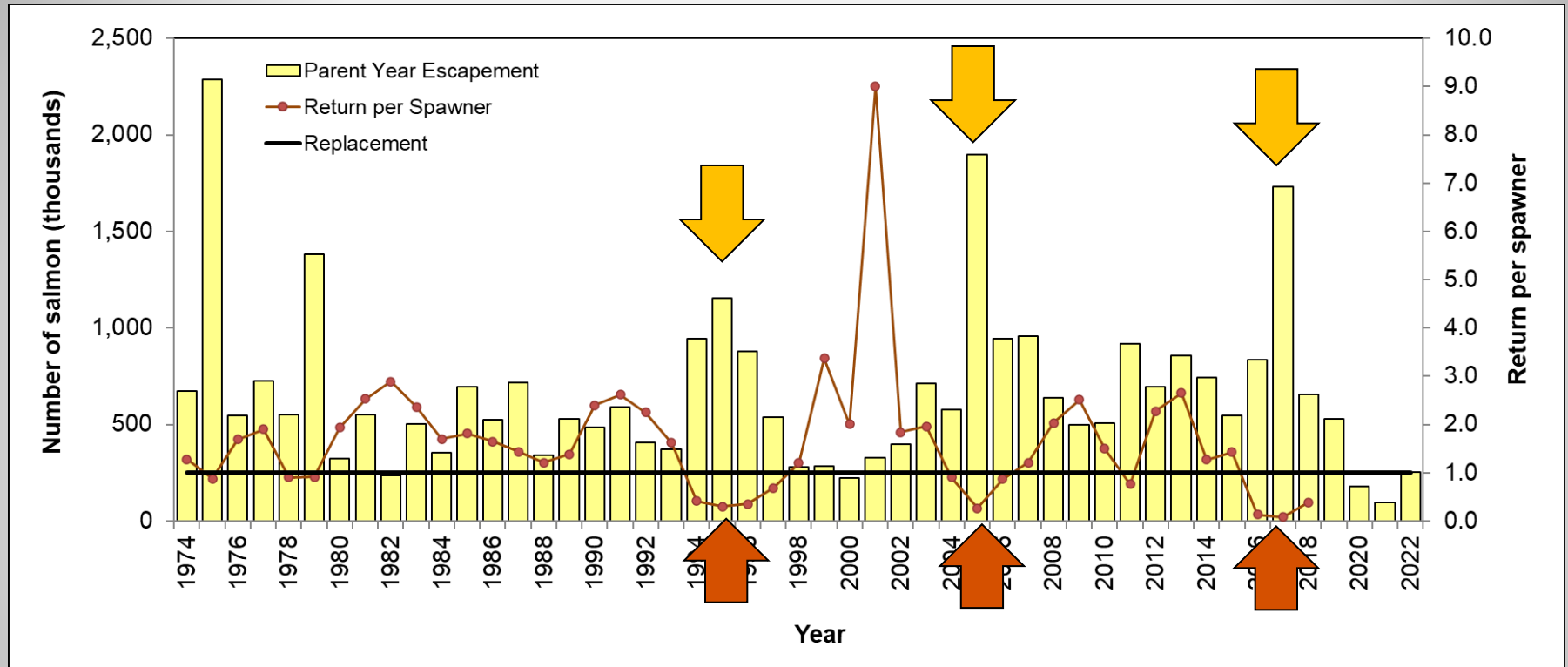


# Fall Chum Salmon Run Size

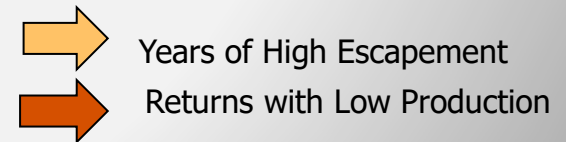


- 2015–2019 average 1.3 million
- 2020–2022 average 178,000
- No escapement goals met 2020-2022, except Delta River in 2020

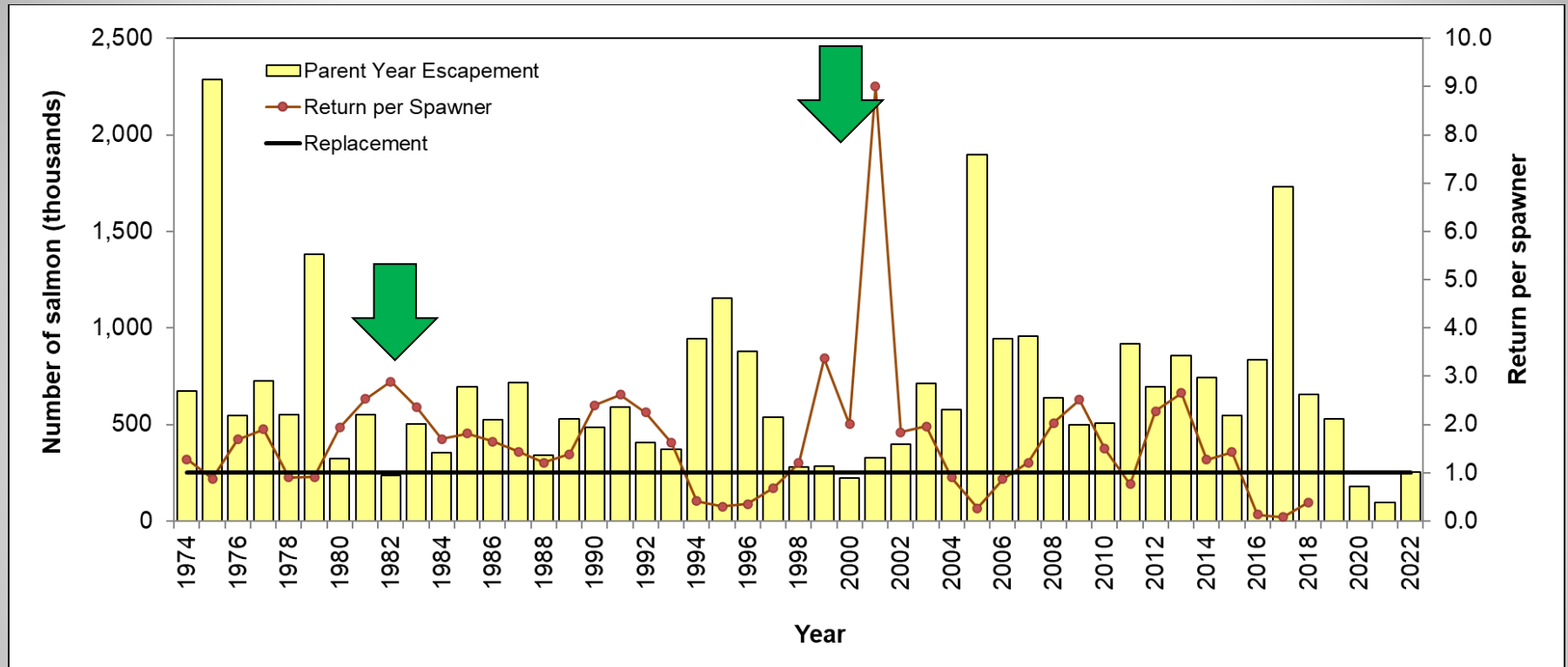
# Fall Chum Salmon Productivity



- Returns per spawner have been low off high escapements (1995, 2005, and 2017)



# Fall Chum Salmon Productivity

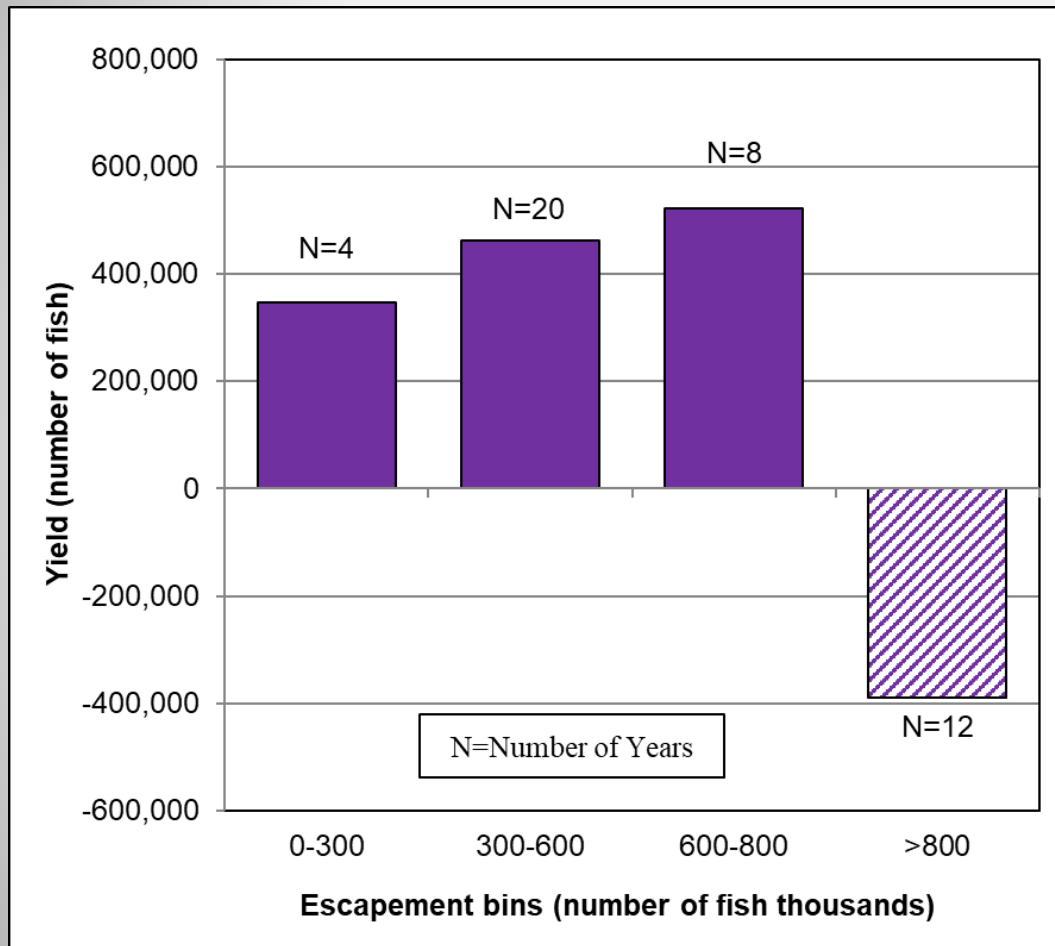


- Low escapements have produced larger returns per spawner under favorable environmental conditions (1982, and 1990–1992)

➡ Escapement/Production

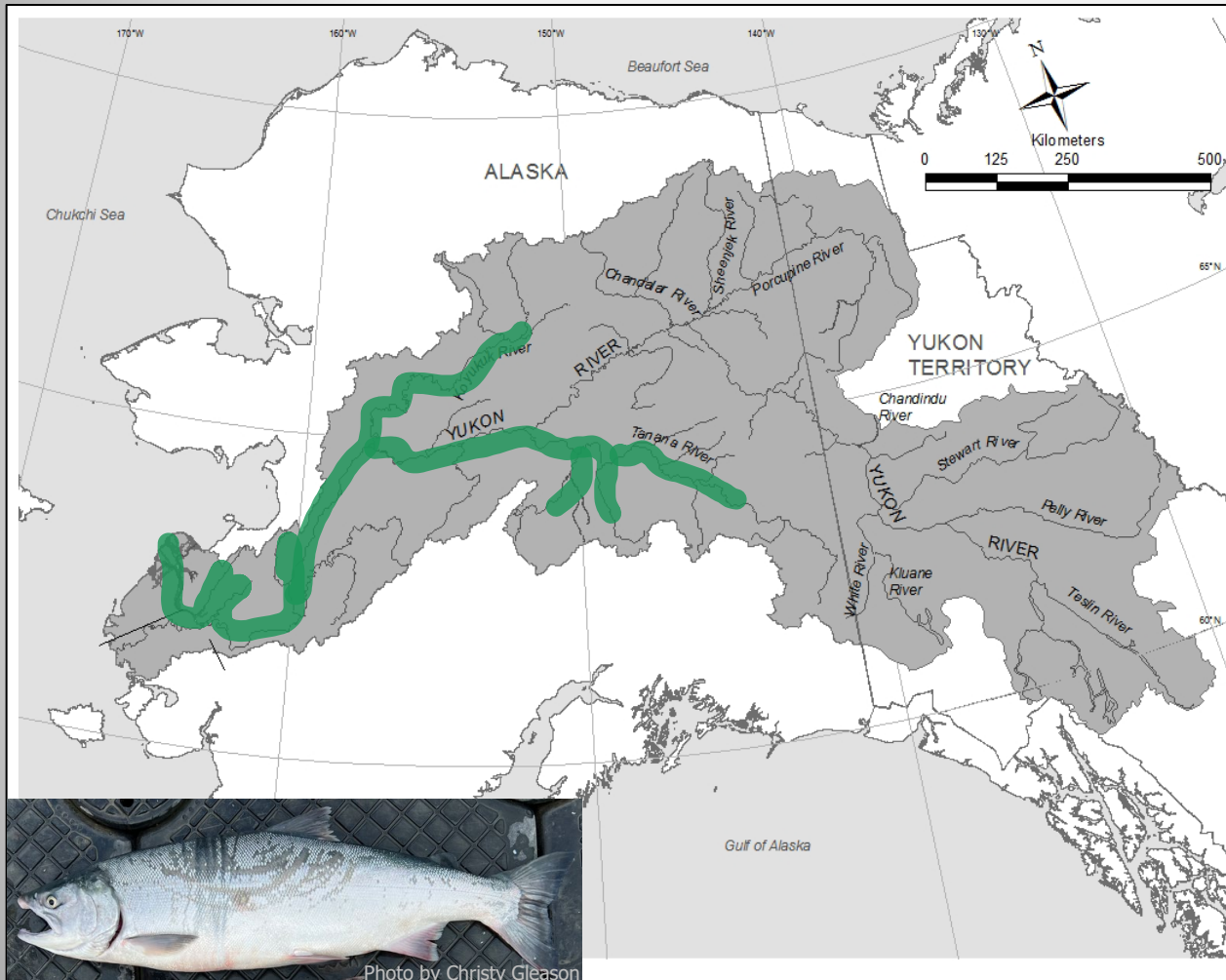


# Average Yield of Fall Chum Salmon



- Data from brood year returns 1974–2017 (44 years), recruits estimated for incomplete brood years (2016 and 2017)
- Escapements greater than 800,000 fish rarely produce yield
- Current drainagewide escapement goal range of 300,000 to 600,000 fish also groups with the greatest number of years with positive yield

# Coho Salmon Distribution



New information is forthcoming regarding distribution of coho salmon in the drainage after the 2022 radio telemetry data is analyzed

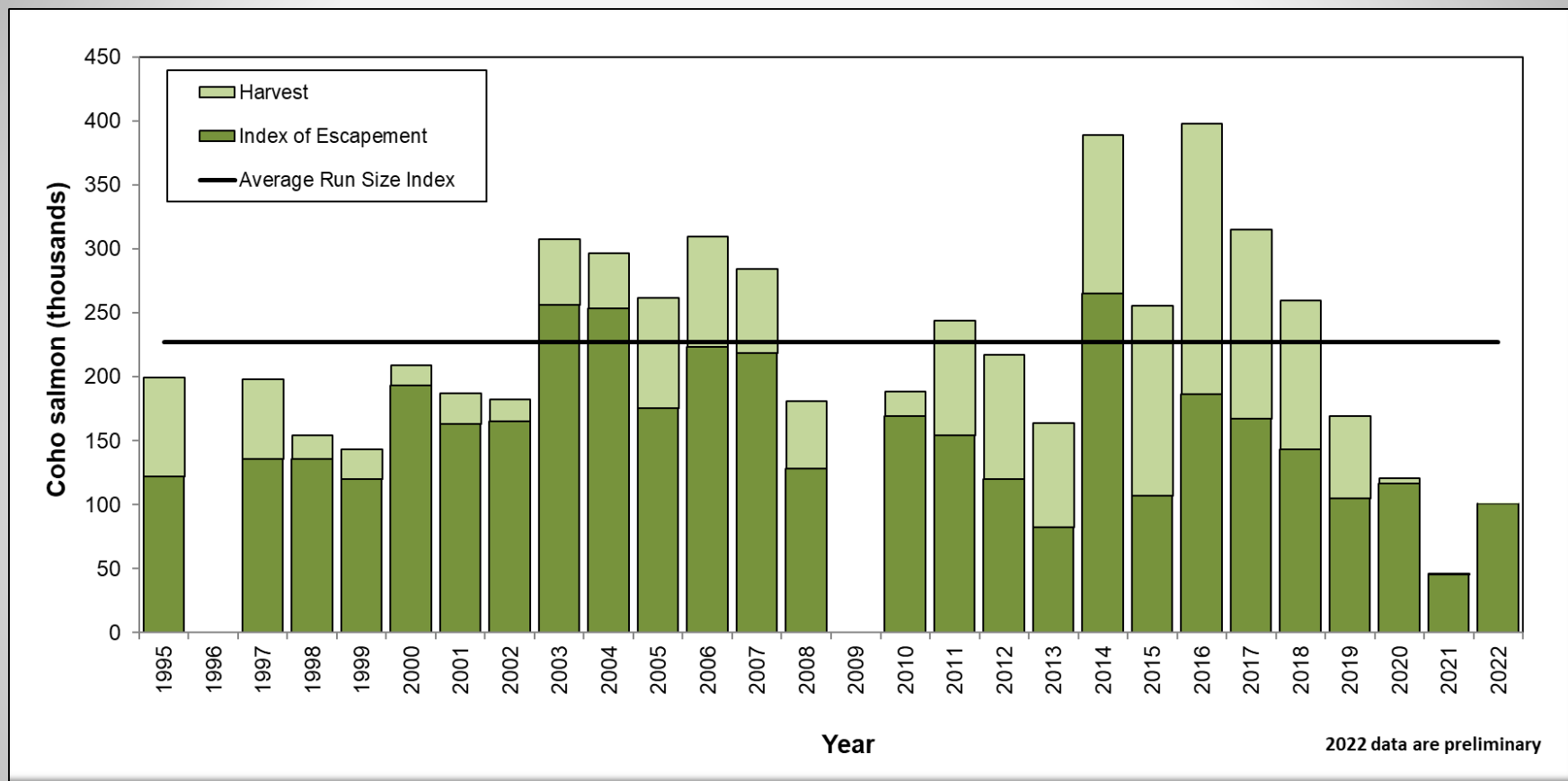


Photo by Christy Gleason



Photo by Holly Krenz

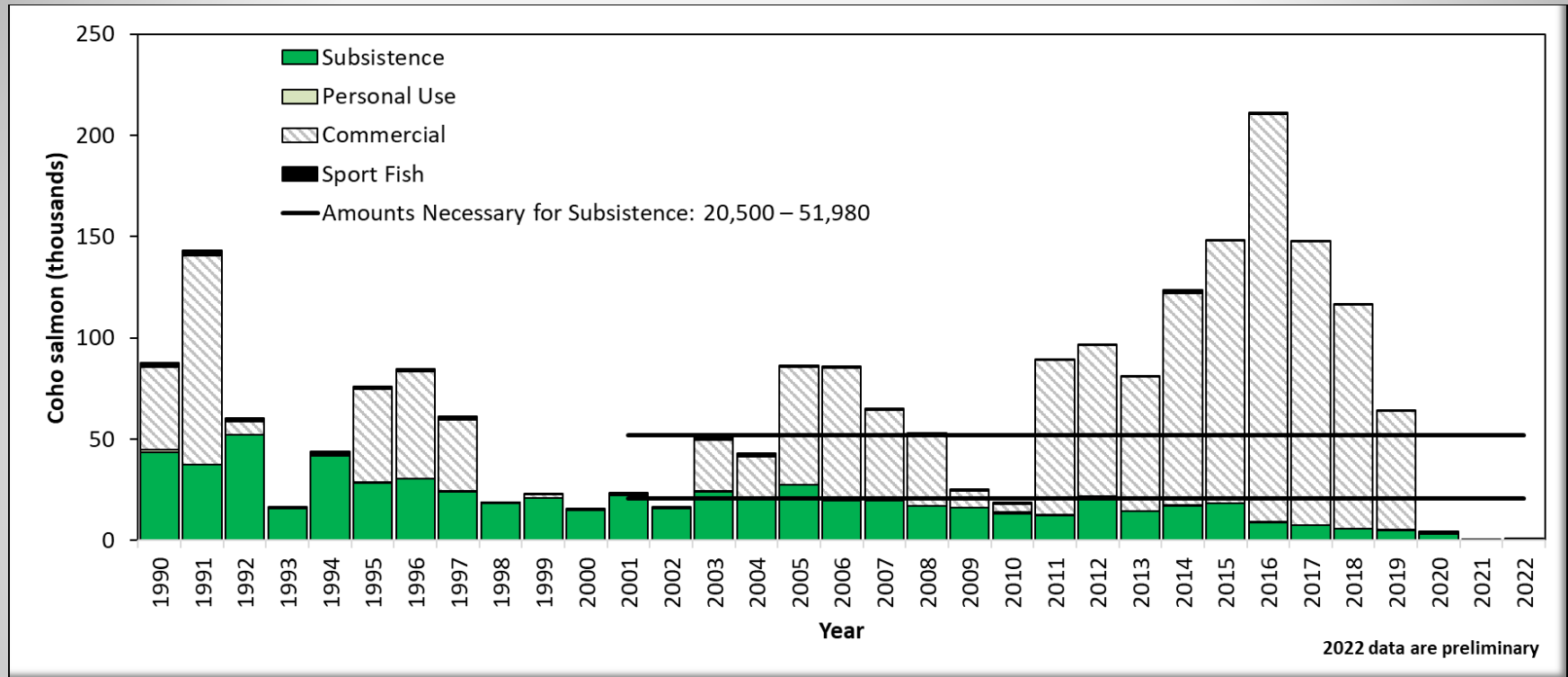
# Coho Salmon Index of Run Size



- Lowest run size index occurred in 2021, compared to average 227,000



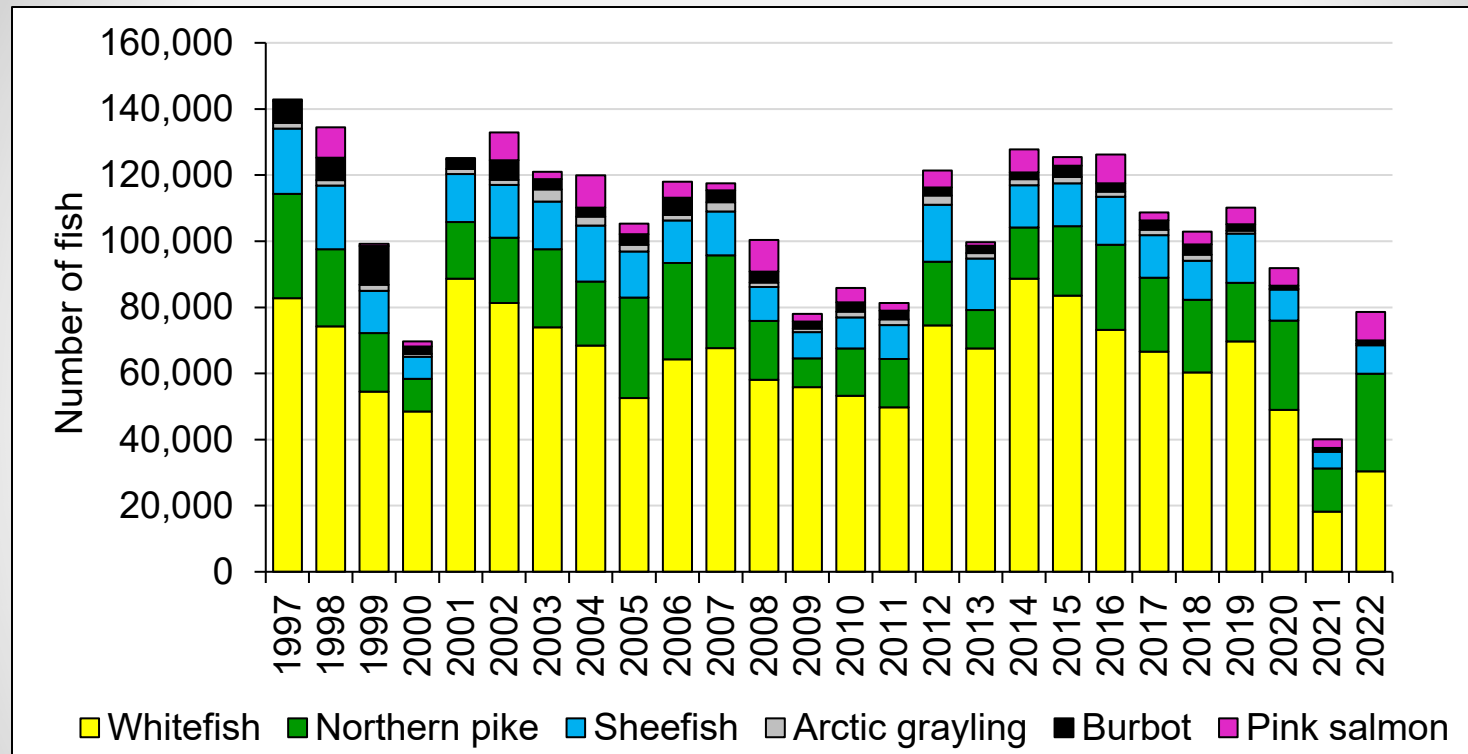
# Coho Salmon Harvests



2020 – 2022

- Subsistence harvest averaged 1,250, compared to 2015–2019 average of 9,000
- Commercial fishing closed, compared to 2015–2019 average of 128,000

# Pink Salmon and Nonsalmon Subsistence Harvest



- During fall chum salmon closures, selective gear and nonsalmon gear used in 2020-2022
- Lower harvests due to inefficient or unavailable gear
- **Not a replacement for loss of salmon harvest**

# 2023 Outlook

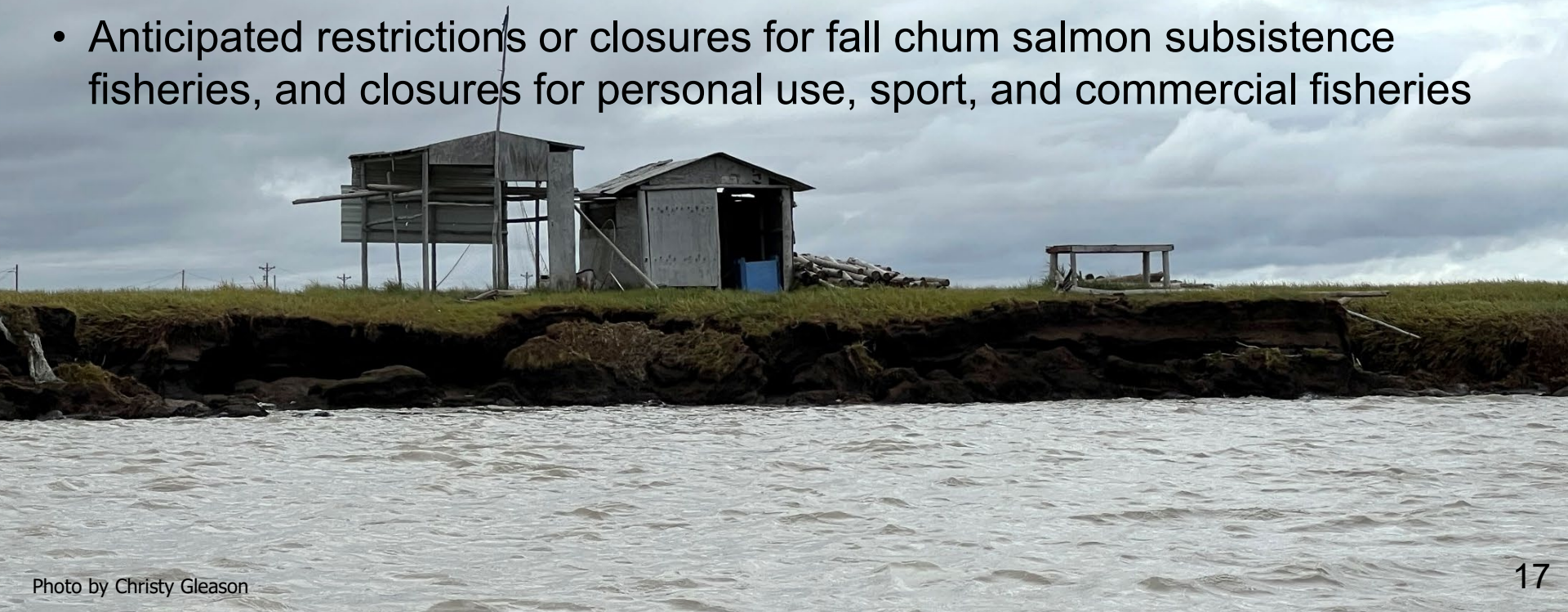
- Parent year escapements:

**Fall chum salmon: Met or exceeded the drainagewide escapement goal**  
(2018 and 2019)

**Coho salmon: Below average**

105,000 in 2019 compared to average of 158,000 fish

- Low productivity resulting in below average run sizes
- Anticipated restrictions or closures for fall chum salmon subsistence fisheries, and closures for personal use, sport, and commercial fisheries





# 2022 Yukon Area Proposals Related to Fall Season

## Subsistence Fishery:

- **Proposal 63:** Establish an annual limit of 20 northern pike and reduce the bag limit to 1 fish greater than 30 inches in the Chatanika Harvest Area.
- **Proposal 64:** Modify the bag limit to require retention of the first 10 fish caught over 24 inches for northern pike in the Chatanika Harvest Area.
- **Proposal 79:** Extend hook and line gear upstream of the Nulato River on the Yukon River and including the Koyukuk River drainage.
- **Proposal 84:** Repeal and readopt Yukon Area subsistence fishery lawful gear and gear specifications.

# 2022 Yukon Area Proposals Related to Fall Season

## Personal Use Salmon Fishery:

- **Proposal 83:** After August 15, a person may not take salmon with a gillnet that has a mesh size greater than six inches in the Yukon Area Personal Use Salmon Fishery.
- **Proposal 85:** Modify Yukon Area Personal Use Salmon Fishery specifications for selective gear types and gillnet mesh size during times of salmon conservation.

## Commercial Salmon Fishery:

- **Proposal 88:** Repeal and replace Yukon Area commercial salmon fishing gear specifications.

# 2022 Yukon Area Proposals Related to Fall Season

## Subsistence, Personal Use, and Commercial Fisheries:

- **Proposal 82:** Modify the dates sinking of gillnets is allowed in the Yukon Area from October 1 to April 30.
- **Proposal 89:** Modify Yukon Area commercial dip net gear operations to include a single rigid handle with a single line attached.



Comments or Questions?

