An Ethnographic Overview of the Kuskokwim River King Salmon Subsistence Fishery

David Runfola
Subsistence Resource Specialist
RC 3, Tab 13
Kuskokwim River Salmon Fishing Season

• Primarily 4 species in subsistence harvests

• Kings arrive first then chum and sockeye

• Harvests can include all 3 species at the same time

• Coho arrive toward the season’s end
Kuskokwim River Drainage

28 communities
25 surveyed annually
Demographics

15,200 residents and 1,800 fishing households in 3 sections

• Lower Kuskokwim
  – 88% of population in 16 communities, Bethel (~6,150)
  – 1,500 fishing households, 88% of harvest

• Middle Kuskokwim
  – 7% of population in 4 communities, Aniak (~500)
  – 170 fishing households, 9% of harvest

• Upper Kuskokwim
  – 5% of population in 8 communities, McGrath (~300)
  – 115 fishing households, 3% of harvest
Regional Differences in the Fishery

Lower
- Large, low gradient, tidal river
- Drift and set gillnets
- First opportunity on all species

Middle
- Narrower river with fewer channels
- Gillnets, fish wheels, rod and reel
- Lower abundance of salmon

Upper
- Set gillnets, fish wheels, rod and reel
- Late season king salmon
- No sockeye upstream of Stony River
Lower Kuskokwim: Regional Subsistence
Top 10 Resources:
Lower Kuskokwim Communities (Study Years 2010-2013)

- King salmon: 14%
- Chum salmon: 10%
- Sockeye salmon: 9%
- Coho salmon: 7%
- Humpback whitefish: 6%
- Northern pike: 7%
- Moose: 13%
- All other resources: 24%
Middle Kuskokwim: Regional Subsistence
Top 10 Resources:
Middle Kuskokwim River Communities (Study Year 2009)

- King salmon: 28%
- Chum salmon: 15%
- Coho salmon: 11%
- Sockeye salmon: 6%
- Moose: 13%
- Burbot: 4%
- All other resources: 27%
Top 10 Resources:
Upper Kuskokwim Communities (Study Years 2009 & 2012)

- Moose 30%
- King salmon 19%
- All other resources 24%
- Coho salmon 9%
- Sockeye salmon 7%
- Chum salmon 6%
- Sheefish 5%
Subsistence King Salmon Fishing in the Kuskokwim, 2012—2018

- Decreased king salmon run sizes
- Unprecedented fishing closures
- Lowest subsistence harvests observed since 1990
- Federal management
Kuskokwim River King Salmon Run Size and Total Subsistence Harvest, 1990-2018

Number of king salmon


Total Run
Harvest
Kuskokwim River Subsistence King Salmon Harvest and ANS Ranges, 1990-2018

Total number of king salmon:

- Lower Kusko: 83,000
- Middle Kusko: 64,500
- Upper Kusko: 67,200
- Total 2018 (preliminary): 109,800
Kuskokwim River Subsistence King Salmon Harvest Per Household by Region, 1990-2017

Annual king salmon harvest per household

- Bethel
- Other Lower Kuskokwim
- Middle Kuskokwim
- Upper Kuskokwim
Summary of King Salmon Harvest Per Household by Region, 1990-2017

Average annual king salmon harvest per household

- Bethel
- Other Lower Kuskokwim
- Middle Kuskokwim
- Upper Kuskokwim

- 1990-1999
- 2000-2009
- 2010-2017
Changes to the Kuskokwim Subsistence Salmon Fishery

- Fishing restrictions make it more difficult to catch chum and sockeye
- Adapting to infrequent and short openers
- Derby fishing results in more competitive fishing
- Fishers traveling to locations outside of traditional fishing areas
- Fishers desire more predictable schedule and more reliable sources of information
Changes to the Kuskokwim Subsistence Salmon Fishery (continued)

- Late season fishing and processing in cooler, wetter weather
- Less time spent catching and processing fish
- Middle and Upper river fishers targeting more coho late in the season
- Dipnets slowly increasing in use
- Many fishers supportive of conservation efforts
QUESTIONS