### An Ethnographic Overview of the Kuskokwim River King Salmon Subsistence Fishery





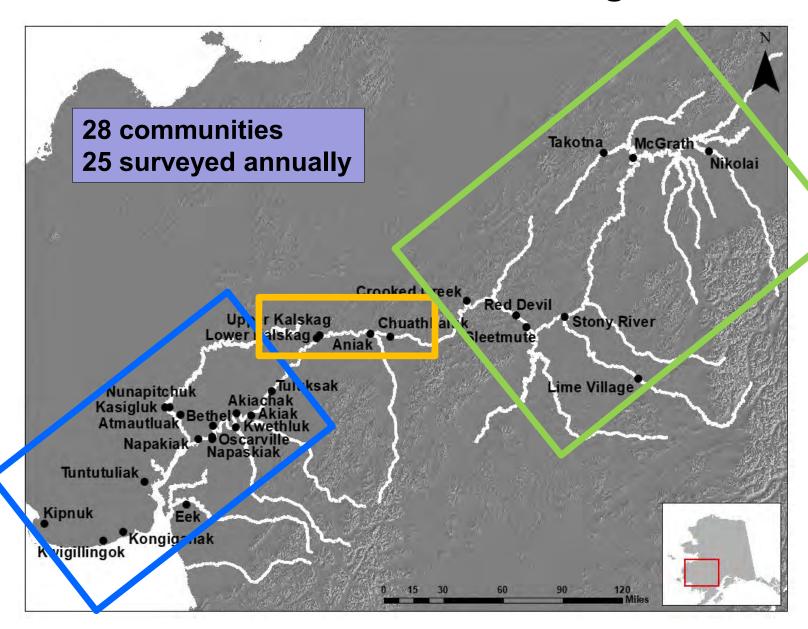
David Runfola
Subsistence Resource Specialist
RC 3, Tab 13

#### 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**



#### **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

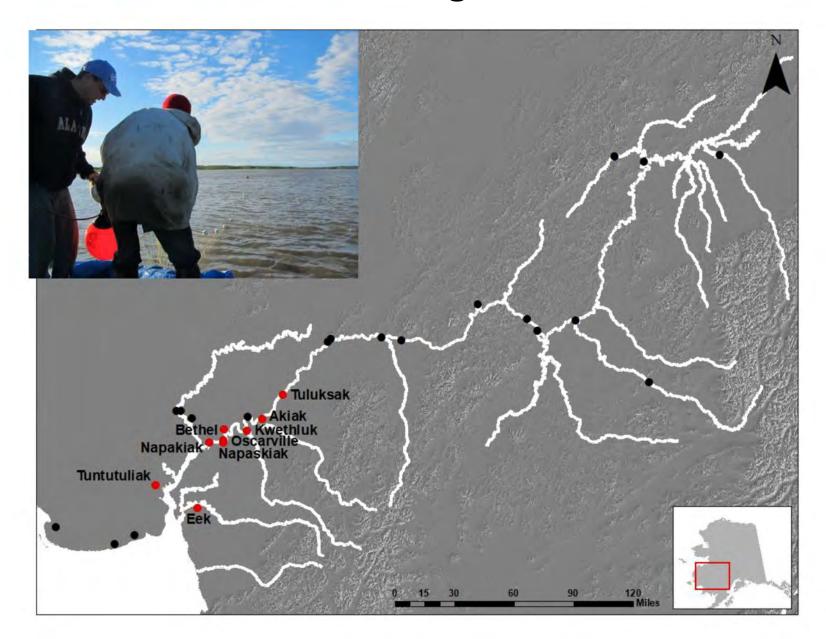
- Narrower river with fewer channels
- Gillnets, fish wheels, rod and reel
- Lower abundance of salmon



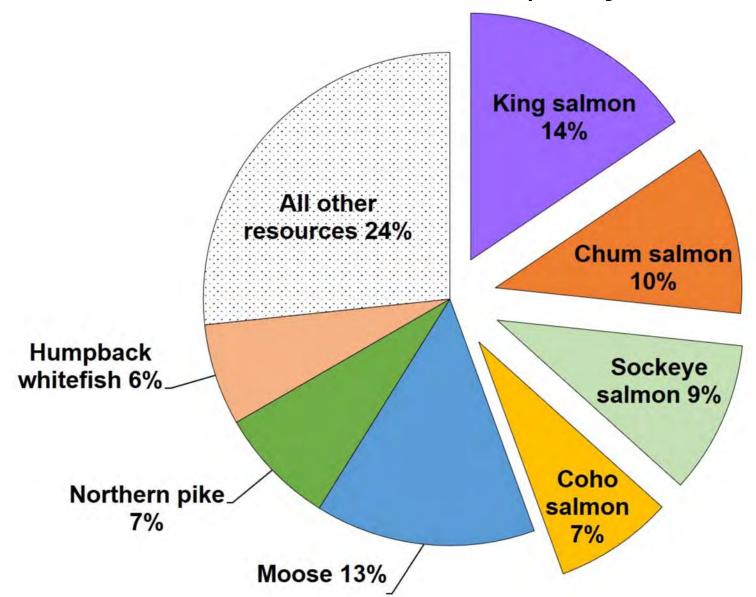
#### **Upper**

- Set gillnets, fish wheels, rod and reel
- Late season king salmon
- No sockeye upstream of Stony River

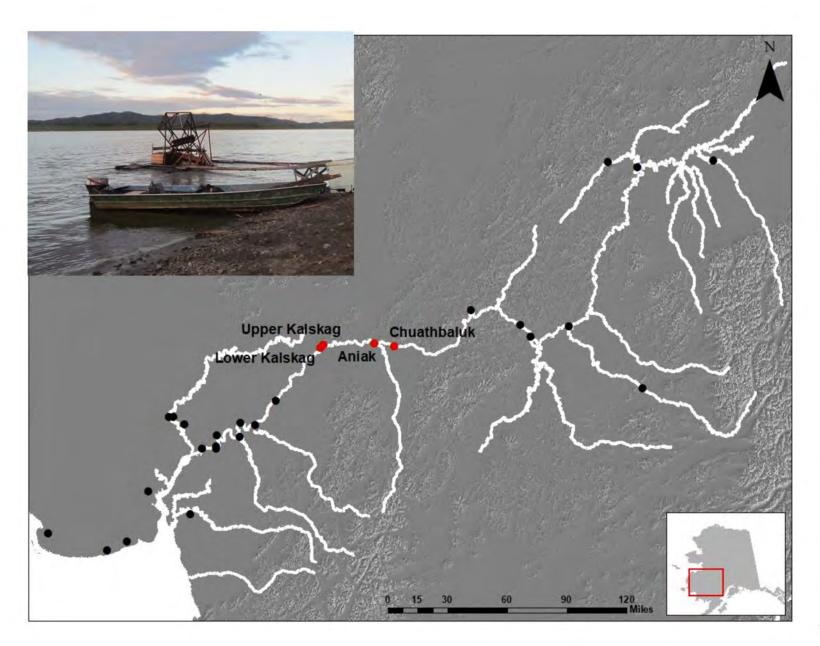
#### Lower Kuskokwim: Regional Subsistence



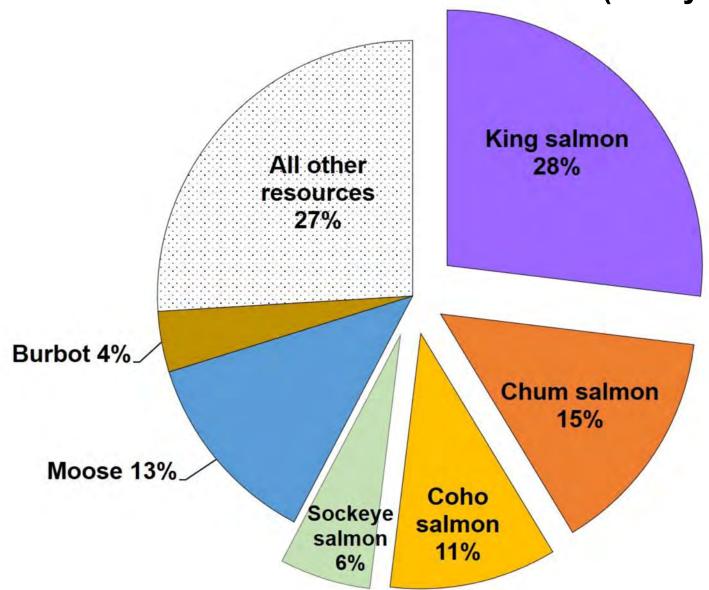
Top 10 Resources:
Lower Kuskokwim Communities (Study Years 2010-2013)



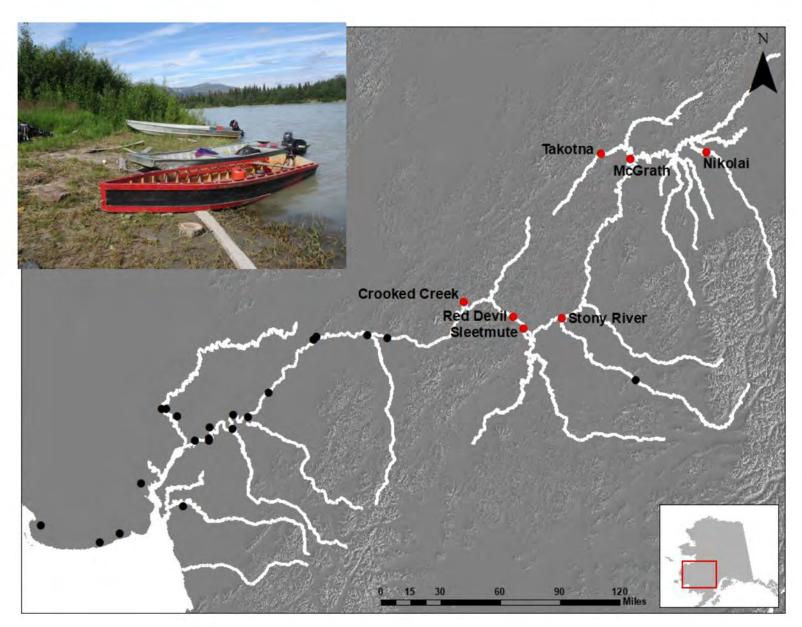
### Middle Kuskokwim: Regional Subsistence



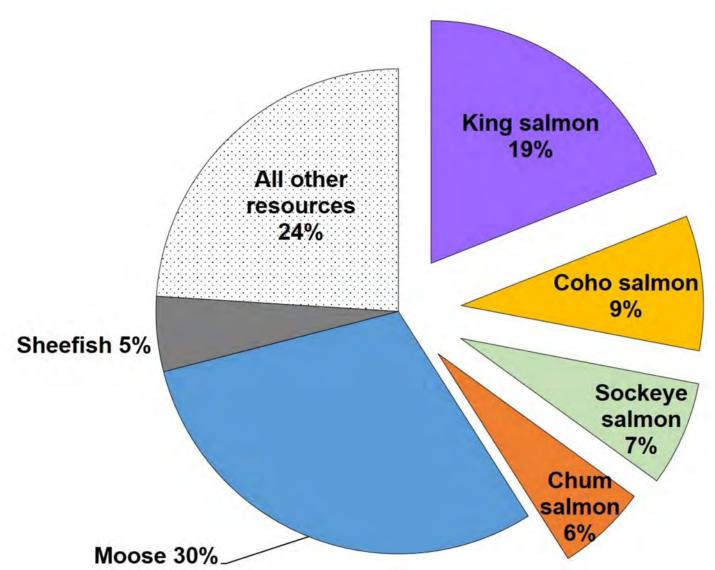
Top 10 Resources: Middle Kuskokwim River Communities (Study Year 2009)



### **Upper Kuskokwim: Regional Subsistence**



Top 10 Resources: Upper Kuskokwim Communities (Study Years 2009 & 2012)

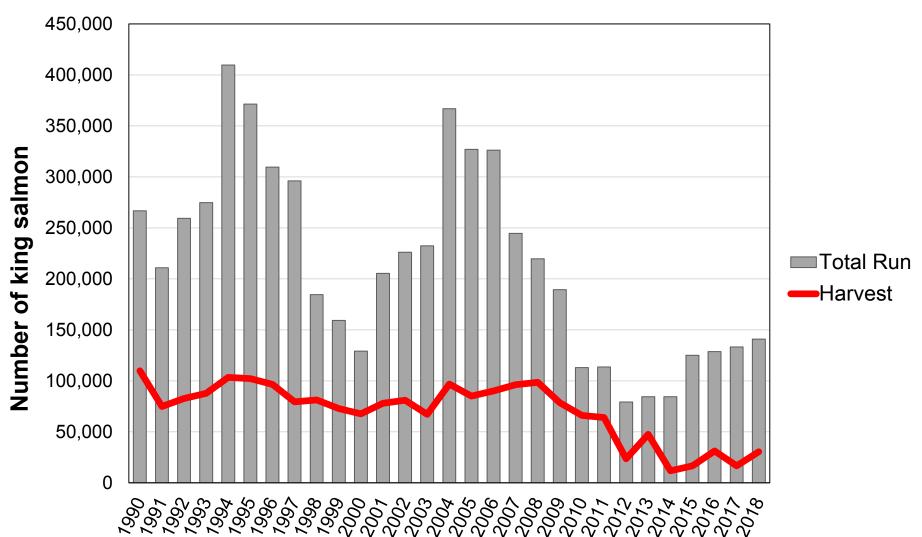


### Subsistence King Salmon Fishing in the Kuskokwim, 2012—2018

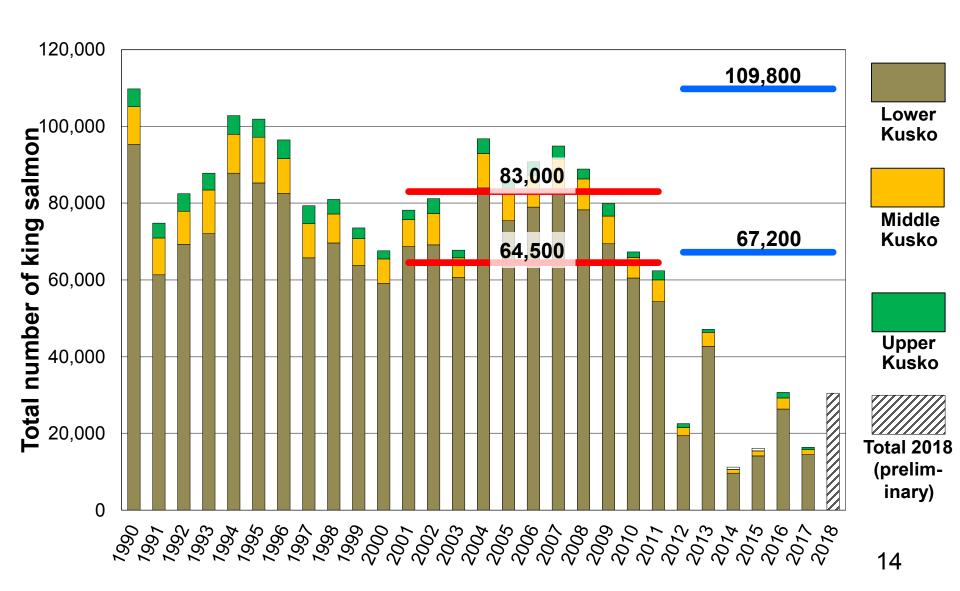


- Decreased king salmon run sizes
- Unprecedented fishing closures
- Lowest subsistence harvests observed since 1990
- Federal management

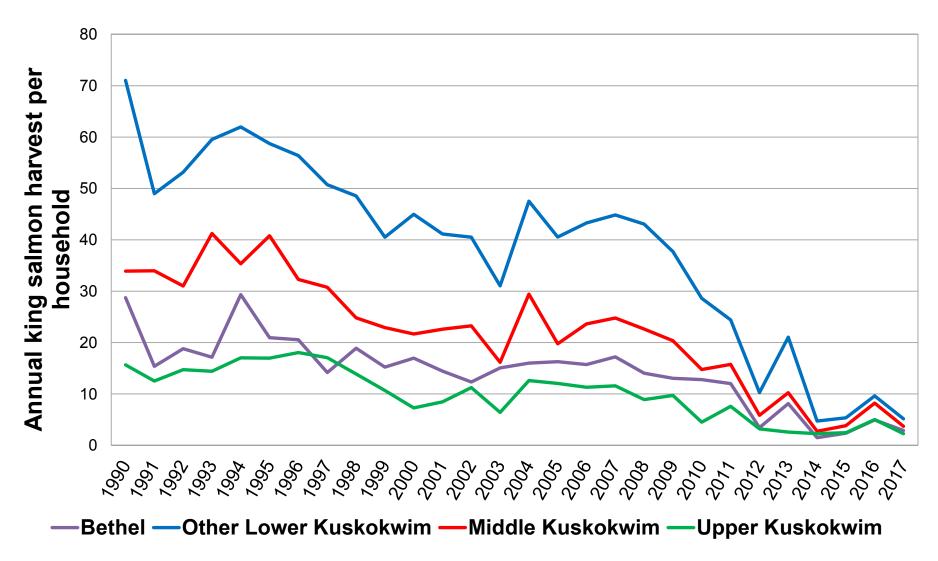
### Kuskokwim River King Salmon Run Size and Total Subsistence Harvest, 1990-2018



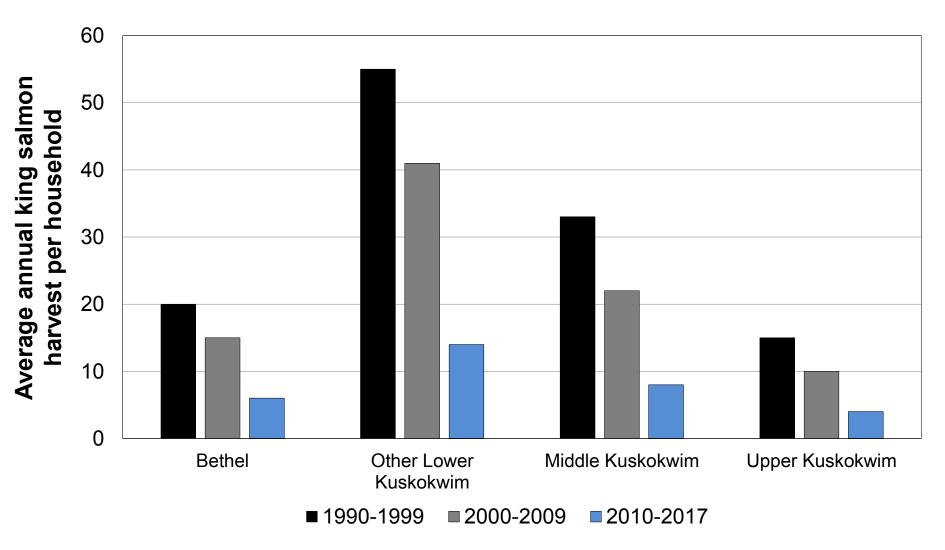
# Kuskokwim River Subsistence King Salmon Harvest and ANS Ranges, 1990-2018



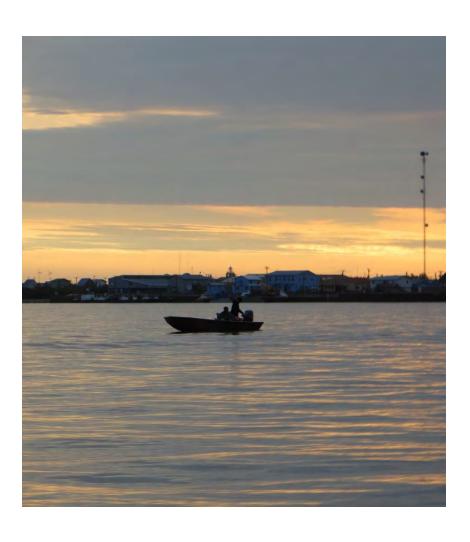
# **Kuskokwim River Subsistence King Salmon Harvest Per Household by Region, 1990-2017**



### Summary of King Salmon Harvest Per Household by Region, 1990-2017



# 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



