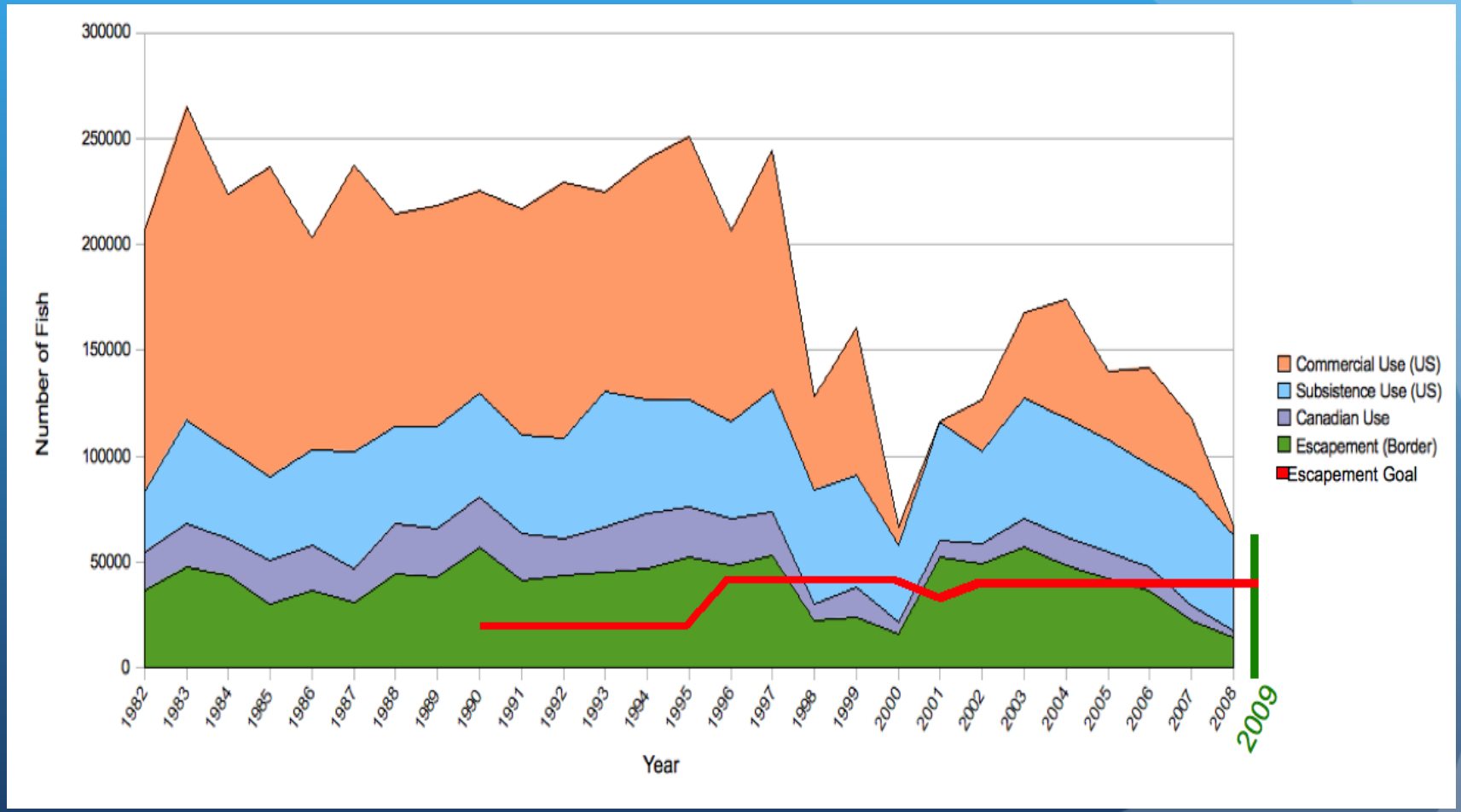
Salmon and Food Security in Alaska:

Emerging Issues and Local Concerns

Philip A Loring, Ph.D.

Human Dimensions Lab at the Water and Environmental Research Center
University of Alaska Fairbanks

Noteworthy Declines



Constant Crisis

- King salmon failures in 2009, 2012
- Disasters declared, but compensation only available to commercial fishers
- In 2009, management actions were considered a success (escapement was made)
- Food and fuel prices in rural AK are high and rising

December 9, 2009 LOGIN

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Rural Alaska

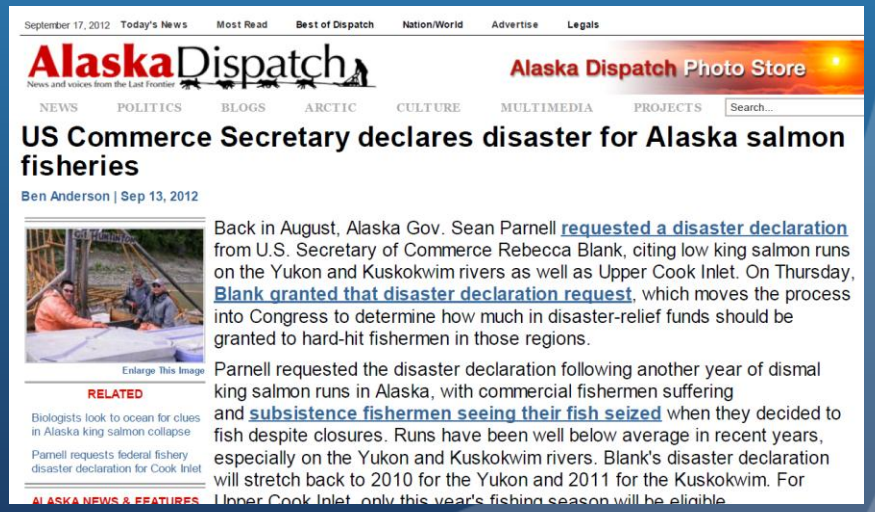
Alaska awaits word on fisheries disaster

Jill Burke

Dec 7, 2009

Four months after putting in a request for a federal fishery disaster declaration with the U.S. Department of Commerce, the state of Alaska is still waiting for an answer. Closures to the Yukon River king salmon fishery this summer shut off crucial income opportunities for fishermen, and also impacted their ability to fish for food. An answer from Secretary of Commerce Gary Locke is expected soon, but approval of the request doesn't itself guarantee financial relief to the families that need it.

The process of declaring a disaster can take from several weeks to a number of months, according to Gaylen Tromble, chief of the Domestic Fisheries Division of the National Oceanic and Atmospheric Association. Fisheries disaster assistance is administered by NOAA through the National Marine Fisheries Service and the Department of Commerce. Once a determination is made, NOAA acts as a conduit between any money set aside by Congress for relief and the state. No congressional appropriation is currently in place for Yukon River fisheries disaster assistance; however, congressional



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US Commerce Secretary declares disaster for Alaska salmon fisheries

Ben Anderson | Sep 13, 2012

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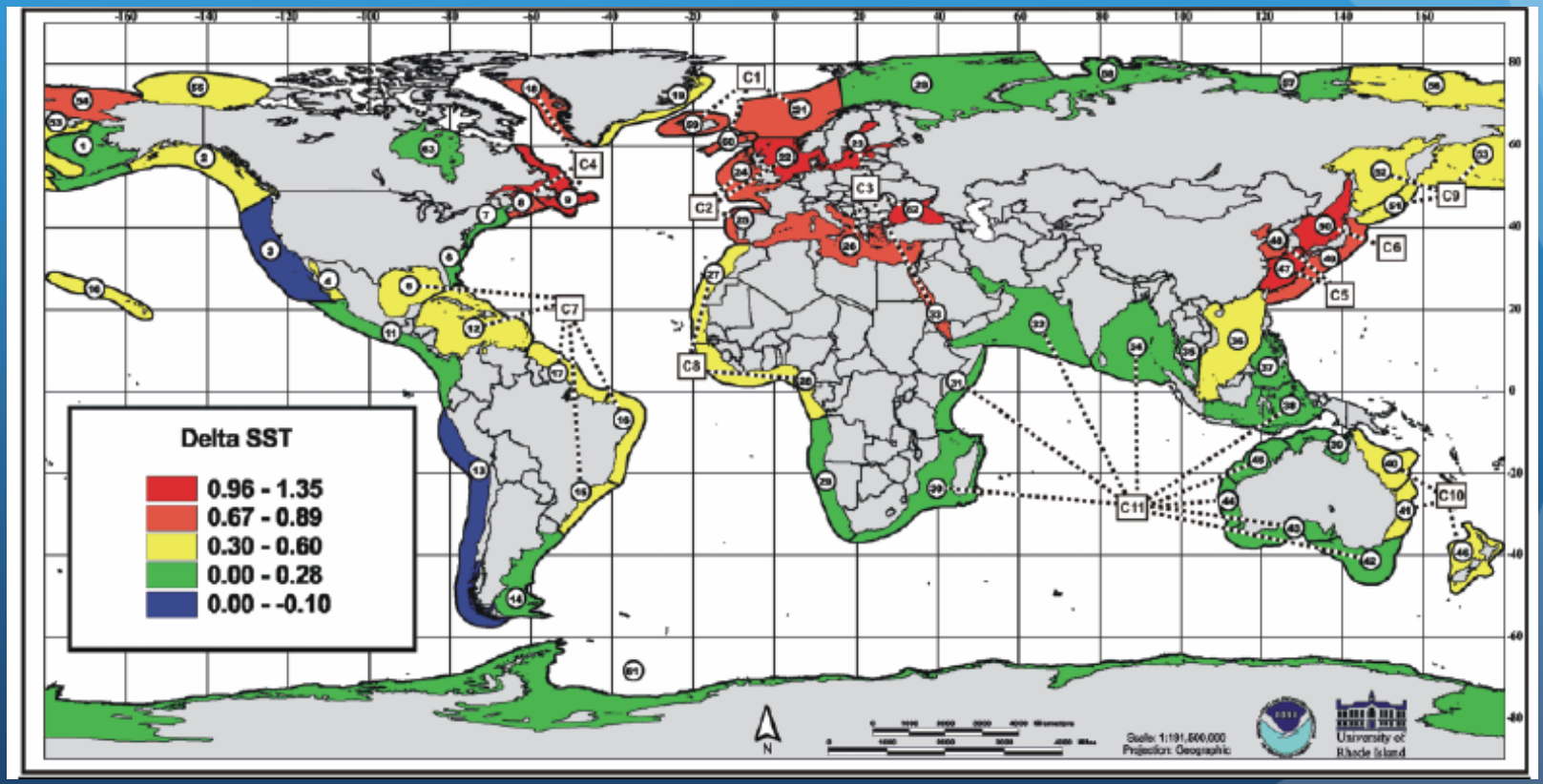
ALASKA NEWS & FEATURES

Back in August, Alaska Gov. Sean Parnell requested a disaster declaration from U.S. Secretary of Commerce Rebecca Blank, citing low king salmon runs on the Yukon and Kuskokwim rivers as well as Upper Cook Inlet. On Thursday, Blank granted that disaster declaration request, which moves the process into Congress to determine how much in disaster-relief funds should be granted to hard-hit fishermen in those regions.

Parnell requested the disaster declaration following another year of dismal king salmon runs in Alaska, with commercial fishermen suffering and subsistence fishermen seeing their fish seized when they decided to fish despite closures. Runs have been well below average in recent years, especially on the Yukon and Kuskokwim rivers. Blank's disaster declaration will stretch back to 2010 for the Yukon and 2011 for the Kuskokwim. For Upper Cook Inlet, only this year's fishing season will be eligible

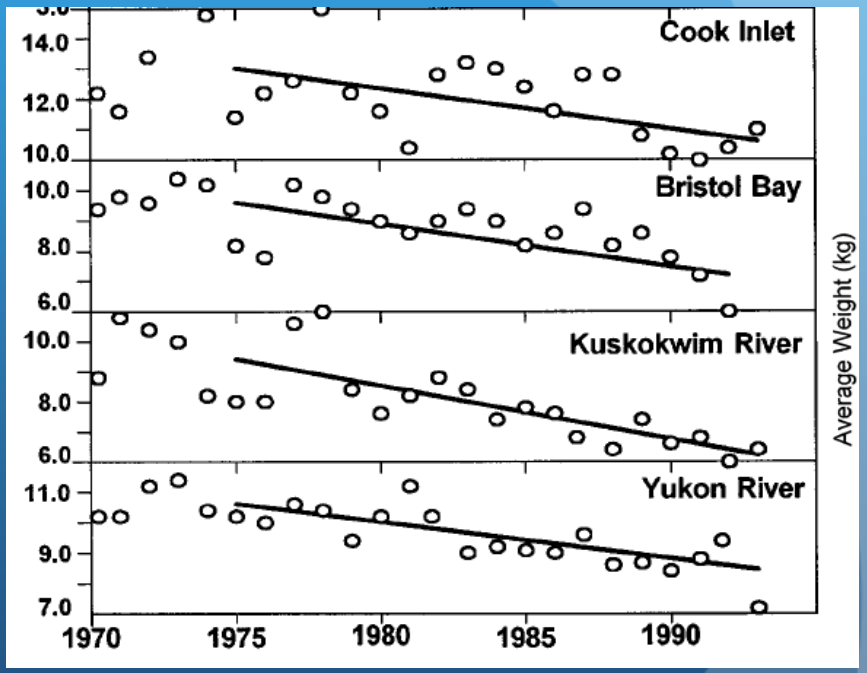
What is Changing?

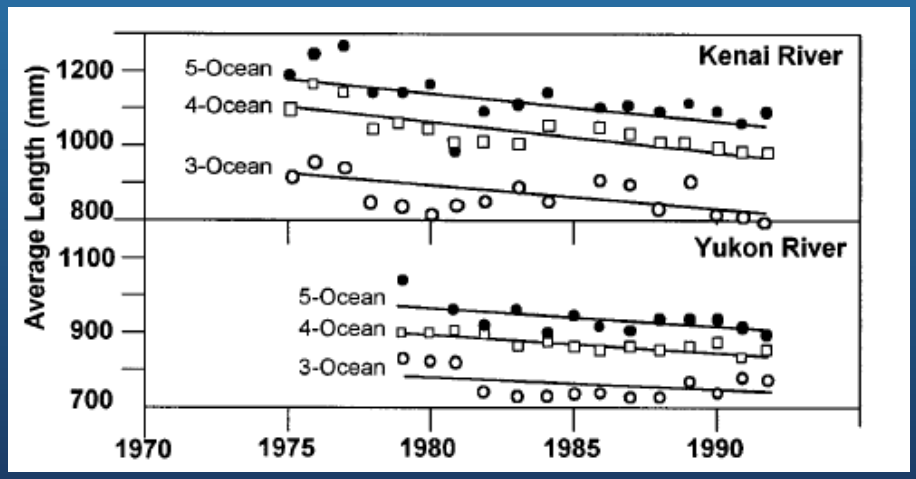
- Climate-driven changes are expected for all LMEs



1982-2006, From Sherman et al. 2009

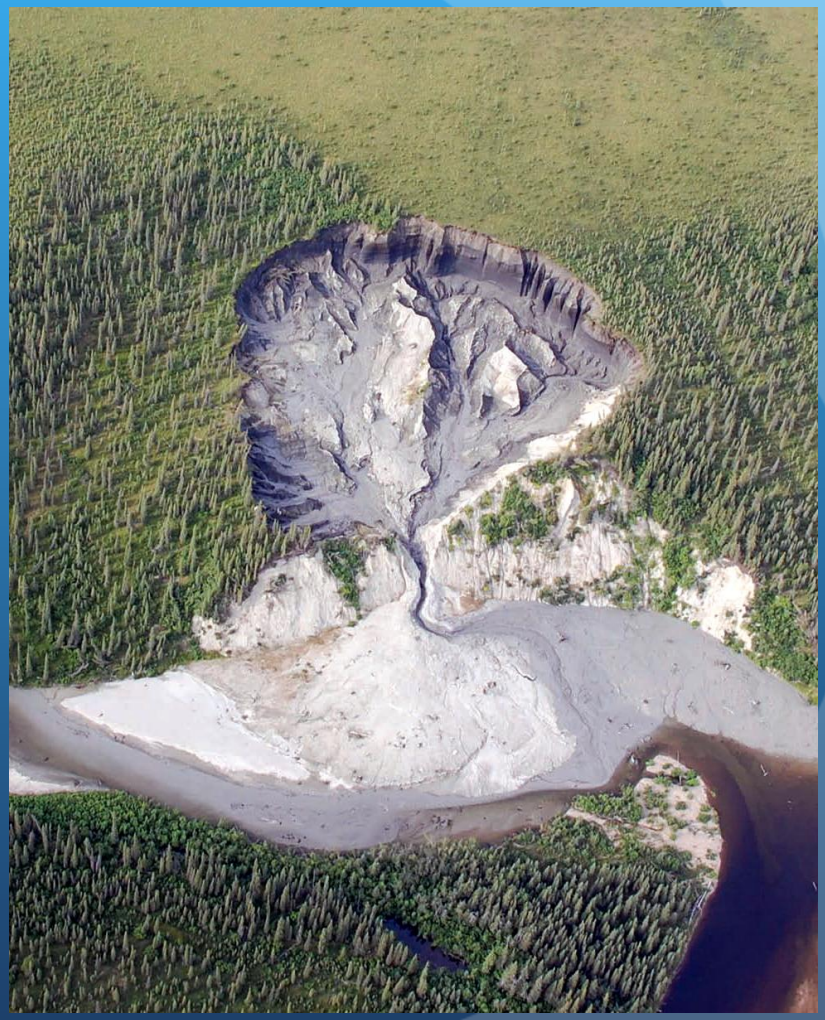
Changes in size, age



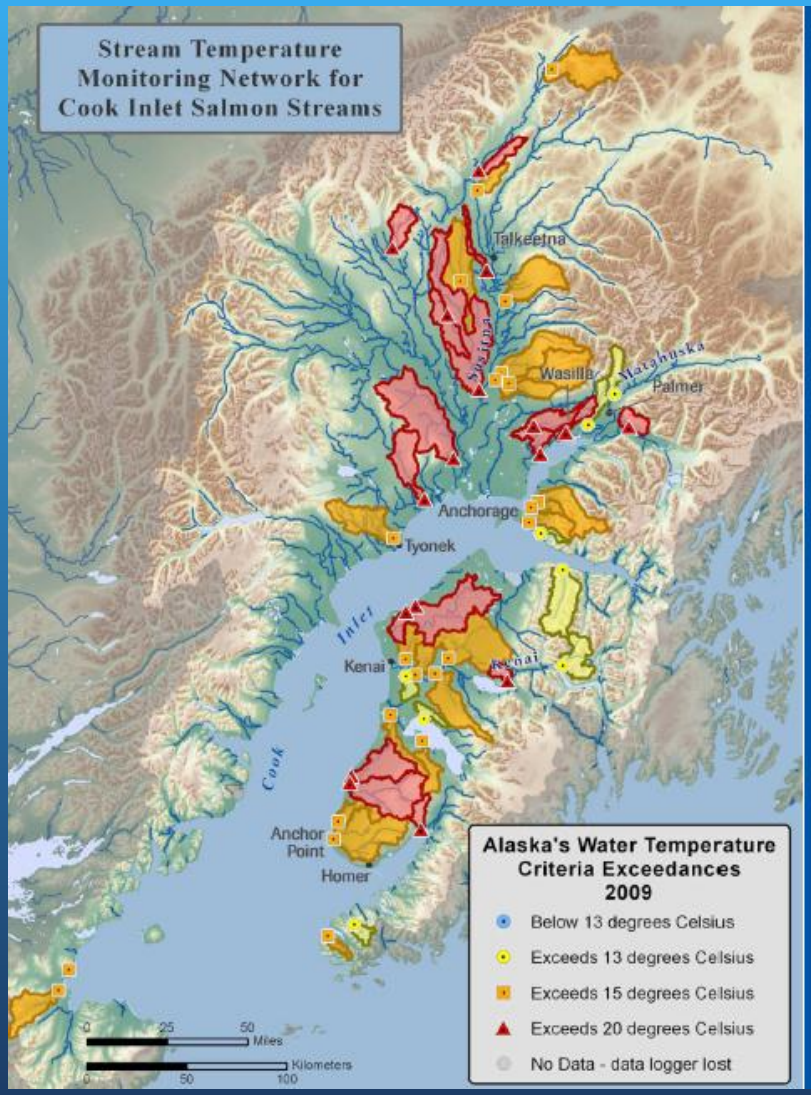


Changes in the Land

- Seasonality
  - Break-up
  - Freeze-up
- Hydrological change
  - Drying
  - Water temp
  - Floods, erosion, etc
- Habitat change
  - Changes to spawning grounds



Changes in the Rivers



2009 Results
Maximum Temperatures

13°C
(55.5°F)

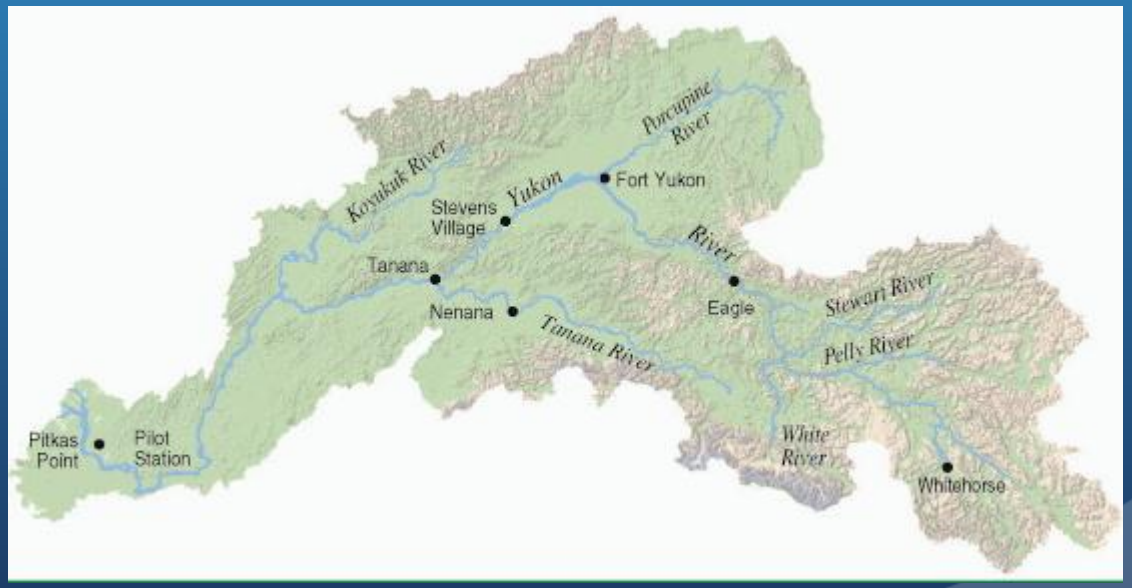
15°C
(59°F)

20°C
(68°F)

Courtesy of Cook InletKeeper

Where are the Fish Spawning?

- On the Yukon, assumed that 50% spawn in Canada
- Limited monitoring of terminal streams
- As rivers change, spawning locations change!



Other Variables

By-catch from at-sea fisheries

- At-sea mortality is biggest unknown
- Average 48k chinook/year since 1990
- Storminess can mix chinook and pollock
- Origin of salmon is unknown
  - Could be 20-70% Yukon-bound

Where You Come In

- Local observations of change
  - Spawning grounds
  - Unhealthy fish
- Conserving habitat, biocomplexity
- Helping us to understand the impacts
- How are you responding to these changes?

For More Information

Upcoming Webinar:

Climate Change and Impacts on Bristol Bay Salmon

Rebecca Aicher, Jason Todd, & Joe Ebersole, U.S. EPA

Wednesday, September 26, 2012; 10-11am Alaska Local Time

http://ine.uaf.edu/accap/teleconference.htm

Please Contact Me!

Philip A Loring

University of Alaska Fairbanks

ploring@alaska.edu

907-474-7163