



AYK SUSTAINABLE SALMON INITIATIVE

Project Synopsis

AYK REGION-WIDE



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(Robert J. Wolfe)

PROJECT 903

PRINCIPAL INVESTIGATOR

Robert J. Wolfe
*Robert J. Wolfe
and Associates*

CONTRIBUTING ORGANIZATIONS

Alaska Connections

*Alaska Department
of Fish and Game*

*Alaska Department
of Labor*

*Bering Sea Fishermen's
Association*

Research North

*University of Alaska
Anchorage*

*University of Alaska
Juneau*

RESEARCH PERIOD

December 2009 -
March 2011

BUDGET

\$340,282.00

WORK-IN-PROGRESS HUMAN SYSTEMS AND SUSTAINABLE SALMON

MODELING FUTURE HARVEST

A pressing need exists for new and continued research on AYK salmon stocks, and for the integration and coordination of research and assessment programs across government agencies, scientific disciplines, and biological boundaries to advance research and achieve sustainable salmon management. Through implementation of this Research Priority, the AYK SSI will contribute to shaping management measures for the future. This project seeks to maximize its impact on future research programs through broad, effective communication across all research sectors—state, federal, local communities, fishers, and academia.

The AYK SSI Steering Committee, with guidance from the Scientific Technical Committee, convened an Expert Panel for the purpose of addressing Research Priority #5 from the AYK SSI Salmon Research & Restoration Plan. Research Priority #5 was drawn from Research Framework #2: *Human Systems and Sustainable Salmon: Social, Economic, and Political Linkages*. The framework acknowledges that human interactions with salmon are complex, primarily as directed or bycatch harvests of adult-phase salmon in the marine and freshwater environments. Additionally, the following general research statement was advanced for this Expert Panel: *"In the AYK region, human populations will increase over the next fifty years, but alternative affordable food resources will become more available, causing fishing and harvest of salmon to remain the same or to decline."*

**RESEARCH
FRAMEWORK:**
HUMAN SYSTEMS –
PRIORITY #5

SNAPSHOT

An Expert Panel, convened by the AYK SSI, will create a model that incorporates various factors affecting AYK salmon harvests and use the model to predict changing harvests under different future conditions.



(Robert J. Wolfe)

Development of a model for predicting future salmon harvests for subsistence, commercial, and sport uses in the AYK region will enable fisheries managers to better understand and anticipate how fishers respond to changes in salmon abundance, and how different management strategies affect salmon harvests.

OUR OBJECTIVES

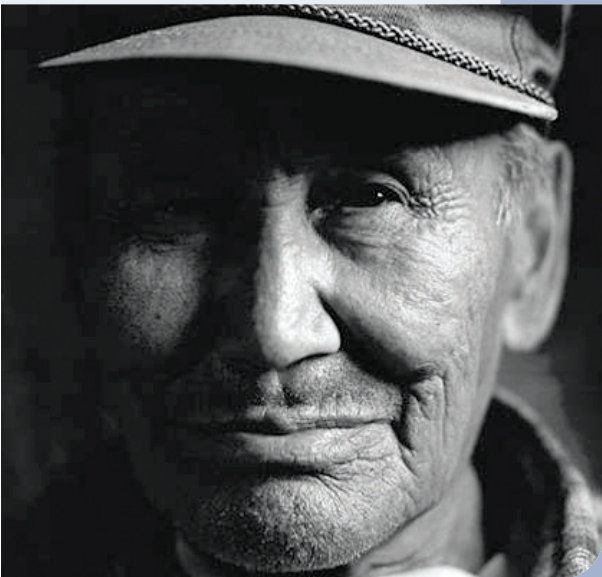
Organize an Expert Panel to assist with addressing this research priority. The panel will identify collections of historic salmon harvest data and the factors related to the demand and harvest of AYK salmon. The panel will develop a model relating future potential harvests and demand to these factors, run the model under alternative scenarios, and identify the management implications of model outcomes.

HOW WE WILL DO IT

The model will use quantitative data and assumptions about present and future conditions to predict future salmon harvests for subsistence, commercial, and sport uses in the AYK area in response to demographic, economic, cultural, and biological factors. It will predict harvest by use categories at the levels of drainage, major area, and stock. The model will predict possible future harvests under different future scenarios involving human populations, salmon abundance, numbers of dog teams, monetary income, and other factors.

REPORT COMPLETION

March 2011



(Council of Athabascan Tribal Governments Staff)

AYK SSI Mission: To collaboratively develop and implement a comprehensive research plan to understand the causes of the declines and recoveries of AYK salmon.

ARCTIC-YUKON-KUSKOKWIM SUSTAINABLE SALMON INITIATIVE

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