

FACT SHEET 2 INTERDISCIPLINARY RESEARCH

...a science-based program working cooperatively to identify and address the critical salmon research needs facing the AYK region.

Understanding the declines in salmon runs

Salmon runs of the Arctic-Yukon-Kuskokwim (AYK) region have been critical to the survival of the people and wildlife for thousands of years. Rural communities in the region depend heavily on the harvest of salmon which forms the foundation of their subsistence diet. However, dramatic declines in salmon runs across the AYK region over the past decade have led to restrictions on subsistence fishing and closure of many commercial fisheries. Since 1997, the unexpected and dramatic declines of AYK salmon runs prompted a total of 16 disaster declarations in different watersheds within the region by the State of Alaska and federal agencies. As a result, harvest restrictions—including those during the 2010 season—have created tremendous hardships for the communities in a region with the highest subsistence dependence on salmon in the state, and who already struggle with some of the lowest incomes in the state. Clearly, there is a need to understand the variations and causes of declines of AYK salmon runs.

Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative

In response to salmon declines, BSFA and regional Native organizations joined with state and federal agencies to create the Arctic-Yukon-Kuskokwim Sustainable Salmon Initiative (AYK SSI), a proactive science-based program working cooperatively to identify and address the critical salmon research needs facing this region.

Collaborative research

The AYK SSI ensures that this unique approach and innovative partnership embodies a legacy of salmon science. The AYK SSI, with the help of our member organizations and principle investigators, is different from other approaches in several important ways.

Collaborative Problem Solving: While funding the highest quality salmon



Giving subsistence and commercial fishermen a voice in the sustainability & development of Bering Sea and western Alaska fishery resources.

Bering Sea Fishermen's Association

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BSFA

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research, AYK SSI remains focused on harnessing that research to understand the causes of AYK salmon declines and to support improved sustainable management of these stocks. The *AYK SSI Salmon Research & Restoration Plan* includes a core focus on the development of new fisheries management tools and the synthesis of information for improved forecasting.

Interdisciplinary: Expanding knowledge of the causes of these salmon declines requires research on all key factors driving salmon populations. As evidenced in the *2002–2010 AYK SSI Research & Discovery Report*, this research program is strongly interdisciplinary, drawing on and synthesizing information from diverse fields includ-

ing: population biology, freshwater and marine ecology, oceanography, genetics, modeling, statistics and social science.

Gravel to Gravel Research: The AYK SSI is dedicated to understanding the causes of the declines of salmon across the freshwater and marine ecosystems of the region, advancing research across the entire lifecycle of the salmon.

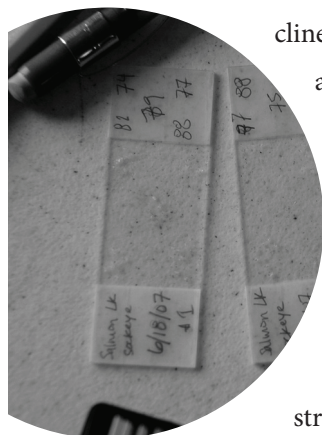
Capacity Building: The approach to conducting research includes an integrated program to expand the capacity of Native and rural organizations to participate in and lead the salmon research we fund.

Research & discovery

Since 2002, AYK partners have funded over 55 salmon research projects implemented by a diverse array of scientists within state and federal agencies, regional organizations, universities, non-governmental organizations and the private sector. These projects address a range of

high priority hypotheses and key research questions drawn from the *AYK SSI Salmon Research & Restoration Plan*. Research project synopses have been published in the *2002–2010 AYK SSI Research & Discovery Report* which provides a brief and accessible view into the depth and breadth of research the AYK partners have sponsored. Explore the work of the AYK SSI and download reports from the website at www.aykssi.org.

AYK SSI is the largest example of co-management of research funding addressing salmon within the Pacific Rim, and is one of the largest successful experiments in the co-management of fisheries and wildlife research in North America. ~~~



AYK SSI SIGNATORY ORGANIZATIONS

Alaska Department of Fish & Game
Bering Sea Fishermen's Association
National Oceanic & Atmospheric Administration
United States Fish & Wildlife Service

Association of Village Council Presidents
Kawerak, Inc.
Tanana Chiefs Conference

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