

ALASKA SALMON PROGRAM



Making sure that salmon fisheries remain healthy and productive is beneficial for both the ecosystems they support and the economies they are connected to. Rooted in a decades-long history, the Alaska Salmon Program's leading research develops new leaders and science to help keep Bristol Bay's ecosystems and industries thriving and continues to underpin conservation efforts across the world.

THE IMPORTANCE OF THE ALASKA SALMON PROGRAM

When the UW School of Aquatic and Fishery Sciences launched its Alaska Salmon Program in 1946—more than a decade before Alaska became a state—researchers were tasked with determining why Alaska's sockeye salmon catches had declined over two decades from 22 million to 10 million fish per year. Prior to that time, salmon biology and management were poorly understood. In the years since, Bristol Bay's half-million square miles of rivers and streams have faced a host of new challenges, from a growing population and increased demand for fish as a protein source to potential impacts from climate change.

WORKING TOWARDS SOLUTIONS

What started as collaboration between the UW and the Alaskan salmon industry is now much broader and includes local residents, fishermen, processors, and scientists. Understanding how ecosystems function helps support healthy fish populations, robust commercial and recreational economies, and equips us to better deal with long-term changes. Research from the program has directly contributed to the successful management of regional salmon fisheries, and has also provided critical insights for watershed protection in the region, and for developing sustainable fisheries globally.



One of the most productive watersheds in the world, the greater Bristol Bay ecosystem is home to some of the largest salmon runs anywhere.



ADVANCING THE SCIENCE

Through their research, scientists with the Alaska Salmon Program pioneered many of the methods and data sets needed to sustainably manage salmon in Alaska. Since then, the program has expanded its research dimensions to include more than the original “count, measure, and harvest salmon” mission. The program has been able to estimate the long-term abundance of salmon going back centuries based on the geochemical characteristics contained in the sediments in lake bottoms, and shown that the systems have been far from constant, showing periods of high and low productivity. Based on this information, they have developed methods to set harvest goals that are robust to accommodate for these changes in productivity.

Innovative approaches to understanding ecosystems, salmon biology, and watershed ecology continue today. Current initiatives include using genetics and genomics to understand salmon's relationship to their environment, bioeconomic analyses, studies of how landscapes form, and the movement and distribution of freshwater to understand watershed responses to a changing climate.

BUILDING STRONG PARTNERSHIPS

For more than 70 years, the Alaska Salmon Program has benefitted from partnerships with the seafood processing and harvesting industry, the State of Alaska, policy makers, conservation groups, other government agencies and scientists. These partnerships have expanded to also include internship opportunities with the Bristol Bay Native Association, and research and teaching collaborations with regional organizations such as the Bristol Bay Economic Development Corporation and the Bristol Bay Regional Seafood Development Agency. As research and educational

programs continue to grow, partnerships and funding sources are becoming more diversified to include the National Science Foundation, philanthropic foundations, and state and federal agencies.

FOSTERING NEW LEADERS

Alaska Salmon Program takes undergraduate and graduate students directly into the field to do actual, hands-on science. It fosters an understanding of salmon and their aquatic ecosystems, and students are able to see their work applied to resource management strategies for conservation groups, government agencies, and industry. Through their training and education, students create new and vital connections with scientists, industry professionals, government officials, and key stakeholders. Students who participate in the program walk away knowing that they helped provide access for everyone to experience the nature of healthy salmon runs and vibrant watersheds, and many have become leaders in Alaska fisheries management.



Through the Alaska Salmon Program, students spend time in the field gaining critical practice and knowledge in research.

All photos by Jason Ching

Learn more online at www.fish.washington.edu/research/alaska