

WEST COAST SALMON

GENETIC STOCK IDENTIFICATION COLLABORATION

<http://projectcroos.com/west-coast-genetic-stock-identification-collaborative>

Project Summary (as of January 28, 2010)

Background

- ❖ West Coast Salmon Genetic Stock Identification Collaboration is an interdisciplinary partnership between the salmon troll industry and university, federal, state and tribal agency scientists and managers.
- ❖ Independent projects in California, Oregon (Project CROOS) and Washington (Ocean Genetics Project) united in 2007 to develop strategies to achieve common goals and objectives.
- ❖ Federal Klamath River disaster relief, the Oregon Watershed Enhancement Board, a Saltonstall-Kennedy Grant and other state and federal funds provide support for California and/or Oregon Projects. Washington projects were supported by the Pacific Salmon Commission and Washington State General Funds.
- ❖ The concept for this project emerged in 2005 during discussions with Oregon's Congressional delegation in developing approaches to address the Klamath salmon disaster.
- ❖ Sampling protocols developed in 2006 have produced two years of fine-scale fish distribution data and fishing effort to support long term ecosystem-based fisheries science and management.

Project Goals and Objectives

- ❖ **Prevent coast-wide fishing closures and enhance economic benefits to the salmon fishery and fishery-dependent coastal communities.**
- ❖ Improve salmon management and avoid harvest of weak salmon stocks by identifying – in “real time” – movement and location of individual stocks and relationship with oceanographic conditions.
- ❖ Improve ecosystem-based fisheries management by applying ecological, economic, and environmental information to management decisions.
- ❖ Link management of freshwater, estuarine, and coastal salmon ecosystems, and maintain salmon fisheries while conserving salmon stocks.
- ❖ Evaluate ocean life history and etiology of the *Shasta* parasite to determine the effects of parasites during the marine life phase of Klamath salmon.
- ❖ Create an interactive, “real time”, and “market driven” website to enable fishery managers, scientists, fishermen, consumers, marketers, educators, and the public to effectively use project data and findings.
- ❖ Support innovative market development through use of bar codes/digital technologies.

Organization

- ❖ Leadership: Oregon Salmon Commission, California Salmon Council and Washington Department of Fish and Wildlife.
- ❖ Partnership: Oregon State University, Oregon Department of Fish and Wildlife, Oregon Sea Grant, Community Seafood Initiative, National Marine Fisheries Service Northwest and Southwest Fisheries Science Centers, California Department of Fish and Game, University of California, Santa Cruz, Washington Trollers Association, and Northwest Indian Fisheries Commission.

Progress

- ❖ Over 200 salmon fishermen representing 15 counties in Oregon, California, and Washington have been trained in sampling protocols.
- ❖ Members of the fishing community, including vessel operators and crew members, fleet managers, and port-liaisons have received more than \$600,000 in compensation.
- ❖ NMFS sponsored a Scientific Research Permit to support West Coast Salmon GSI Collaboration research.
- ❖ Tri-state standardized data collection and sampling plan is in development and, season permitting, at-sea data collection will commence May 2010.
- ❖ Oregon's interactive “real time” website www.pacificfishtrax.org went online February 2009.
- ❖ Prototype electronic at-sea data entry system is in development for testing and data collection in 2010.
- ❖ Strategic implementation document is in development and will be approved at the Spring 2010 meeting.

Future Actions

Long term funds for ocean research need to be a part of federal efforts to aid the fishery and improve management and science. Based on research findings, this project will help industry access healthy stocks, protect weak stocks, improve economic benefits, and become a model for future collaborative fishery research. The tri-state partnership between California, Oregon and Washington will support a Coast-wide integrated approach to salmon science, management, and has potential to provide economic benefits to the fishing industry.

Figure 1. Spatial distribution of West Coast Genetic Stock Identification Collaboration sampling and genetic estimates of stock proportions from Chinook salmon (n = 2,413) encountered during July, 2007 in four Pacific Fisheries Management Council areas. Horizontal lines represent current management zones; areas north of San Francisco in California were closed to commercial fishing.

