

*from Rep. Paul Seaton, Homer AK*



# WEST COAST SALMON GENETIC STOCK IDENTIFICATION COLLABORATION

## 2012 Summer Update

The 2012 sampling season is underway in Washington, Oregon, and California.

Fishermen collect data such as barcoding (left), length measurements (bottom left), scale samples for aging (below), and genetic data, as well as other catch information.

Laboratory staff are working to analyze the genetic data, enter it into the databases, and share the data as quickly as possible.

*Photos courtesy of Evan Merz, Paul Merz, and Doug Fricke, commercial salmon fishermen.*



**West Coast Salmon Genetic Stock Identification Collaboration** is a working partnership between fishermen, scientists, and managers in Washington, Oregon, California, and Idaho that aims to benefit fish and strengthen west coast salmon fisheries by protecting weak stocks, providing sustainable harvest, and improving economic opportunities and fishing practices through better understanding of stock specific ocean distribution and migration patterns of salmon.



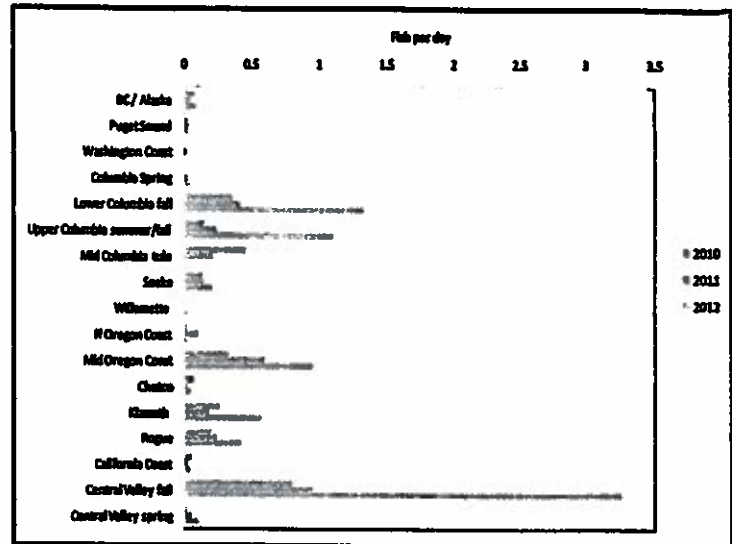
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## Project Goals

- Goal 1: Improve understanding of the ocean ecology of salmon by Integrating stock-specific distribution patterns over space and time with biological and environmental data.
- Goal 2: Integrate multiple disciplines to develop and apply new scientific technology to improve fisheries management strategies across geo-political boundaries.
- Goal 3: Improve economic opportunities for fishermen and coastal communities.

## Latest Genetic Stock Identification results

- There is overall improvement in the 2012 commercial fishery since 2010 and 2011. This improvement is most significant in the stocks from the Columbia River and California Central Valley.
- GSI produces usable data faster than coded wire tags (CWTs). Genetic results can be available 24-48 hours after sampling.
- GSI supports regional management of Pacific salmon fisheries. Fish from California rivers comprise a large segment of the Oregon commercial fishery; management of Pacific salmon by single states would be insufficient.  
(See the Central Valley fall contribution to catch.)
- With data collected over many years, we can analyze long-term trends and the effects of variables such as ocean conditions, river conditions, annual rainfall and other weather patterns.



Oregon catch rates, August. Combined catch per unit effort (number of fish caught per boat-day) for 17 stocks. Data are shown for the Oregon commercial salmon fishery in August of 2010, 2011, and 2012. Stocks are displayed in north to south order of the natal river.

### 2012 Season

- From May through August 2012, more than 1000 Chinook salmon tissue samples have been collected at sea in Washington, over 6800 samples in Oregon, and over 7500 in California.
- In June and July 2012, Oregon conducted the second and third fishery-independent survey trials. This study explores the possibility of test fishing to determine stock distributions. Fishermen sample in a fixed grid pattern and scientists compare their catch with commercial catch from the same time period.
- Preliminary data show that, to date, catch per unit effort (CPUE) is much higher in California and Oregon in 2012 than in either 2010 or 2011.
- The SeaTab at-sea data entry system is under development and has been live tested on fishing boats to record catch and fishing data and transmit it directly to the FishTrax™ database on shore.

### WCS-GSI Collaboration

- The Oregon Salmon Commission, California Salmon Council and Washington Trollers Association lead the Collaboration. Partners include Oregon Sea Grant, Community Seafood Initiative, Columbia River Inter-Tribal Fish Commission, University of California—Santa Cruz, Oregon State University, Oregon and Washington Departments of Fish and Wildlife, California and Idaho Departments of Fish and Game, National Marine Fisheries Service North-west and Southwest Fisheries Science Centers.
- This project has produced five years of fine-scale fish distribution data and fishing effort to support long term ecosystem-based fisheries science and management.
- A major objective is to prevent coast-wide fishing closures and enhance economic benefits to the salmon fishery and fishery-dependent coastal communities.

Please visit our website at [www.fishtrax.org](http://www.fishtrax.org). For more information and to stay informed about our project, please contact Joe Dazey (Washington Trollers Association, [jdzey@centurytel.net](mailto:jdzey@centurytel.net)), Nancy Fitzpatrick (Oregon Salmon Commission, [nancy@oregonsalmon.org](mailto:nancy@oregonsalmon.org)) or David Goldenberg (California Salmon Council, [golden59@pacbell.net](mailto:golden59@pacbell.net)), Sarah Bates, GSI fleet manager