

# PROJECT CROOS

## Collaborative Research on Oregon Ocean Salmon

[www.PacificFishTrax.org](http://www.PacificFishTrax.org) & [www.projectCROOS.com](http://www.projectCROOS.com)

### Scale Analysis Project Summary (*as of January 6, 2010*)

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The Scale Project of the Oregon Department of Fish and Wildlife interprets circuli patterns on scales to determine age composition, hatchery or wild origin, life history, and growth information for salmonid and warmwater fish species (<https://nrimp.dfw.state.or.us/crl/default.aspx?pn=FS>). For Project CROOS, we determined the total age of Chinook salmon that were sampled from the ocean troll fishery and had high probability of assignment to a genetic group. Our data will provide age composition of wild stocks, determine if stock-age trends exist, help with status assessment and, if continued in the future, may be used for cohort/sibling analyses for predictive models.

#### Progress

- ⇒ In 2006, we mounted 2,094 scales samples and were able to determine the age of 2,045 Chinook salmon from the commercial troll fishery off the central Oregon coast.
- ⇒ We mounted 2,835 scales samples and were able to determine the age of 2,456 Chinook salmon from the general fishery in 2007.
- ⇒ In 2008, due to the complete closure of commercial troll Chinook fishery south of Cape Falcon, Oregon, no samples were collected.

#### Results to Date

- ⇒ The age composition for the 2006 collection was 0.1% age-2, 57.0% age-3, 38.5% age-4, 3.9% age-5, and 0.5% age-6. The Project CROOS annual report for 2006 can be found at <http://projectcroos.com/reports-and-publications>.
- ⇒ The age composition in 2007 was 0.04 % age-2, 54.2 % age-3, 36.9 % age-4, 8.2 % age-5, 0.6 % age-6, and 0.04 % age-7. The Project CROOS annual report for 2007 can be found at <http://www.pacificfishtrax.org/about-us/reports-and-publications>.
- ⇒ Generally, stocks of Chinook salmon from the central Oregon north to British Columbia had a larger component of age-5 and age-6 fish while stocks from southern Oregon and California tended to be younger.
- ⇒ In 2007, prevalence of age-3 and age-4 Chinook salmon in the age composition by time and area was strongly influenced by presence of Klamath and Central Valley stocks in the fishery, respectively.

#### Future Actions

Once weak Chinook salmon stocks recover enough for Pacific Fisheries Management Council to allow a research fishery or an open Chinook salmon fishery, we will read scales to provide ages for all fish whose genetic stock origin can be identified. We will continue to explore stock-age relationships and would like to test if we can identify maturing and non maturing fish from their scales.