

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON REVIEW OF 2009
FISHERIES AND SUMMARY OF 2010 STOCK ABUNDANCE FORECASTS

Dr. Robert Kope of the Salmon Technical Team (STT) provided the Scientific and Statistical Committee (SSC) with an overview of the 2009 salmon fisheries and the forecast of abundance for the 2010 salmon fisheries.

The Sacramento River Fall Run Chinook (SRFC) continues to be a concern. The SSC commends the STT for their development of confidence intervals for the predictions of SRFC. Dr. Michael O'Farrell of the STT presented a range of approaches to expressing the error structure in this regression. This general topic deserves further attention.

The SRFC escapement was roughly 1/3 of the predicted value in 2009. There are reasonable explanations for its under-prediction. The Sacramento Index (SI) is not age-structured, but jacks are predictors for age 3 fish. In most years of the time series there are also age 4 and 5 fish present, and these are built into the regression, with the implicit assumption that they are a constant proportion of the population. Since 2007 there have been very few SI fish, so the expectation is that there are few older-age fish present. This may have contributed to the high prediction in 2009 and suggests that the predictor for 2010 may again be biased high. Nonetheless, the SSC endorses the use of this estimator, but cautions that escapement goals should be precautionary. The performance of this estimator under variable conditions could be improved by the availability of age structured data.

Because of the dependence of salmon management on sibling regressions all along the coast, and the need to characterize the associated uncertainty, the SSC recommends a workshop on sibling predictors.

PFMC
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