MODEL EVALUATION WORKGROUP REPORT ON 2013 SALMON METHODOLOGY REVIEW

Model Evaluation Workgroup (MEW) has three items for the Methodology Review agenda; the first two pertain to usage for 2014 pre-season planning while the third can be considered as a progress report with work continuing through 2014.

1) Development of a standardized methodology for calculating Age 2 Chinook forecasts based upon the stock specific Age 3 forecast. This methodology will address the problem of setting Age 2 abundances when annual forecasts for FRAM stocks are in terms of Age 3 and older fish. Having Age 2 Chinook forecasts consistent with current production/abundance will help address Chinook FRAM's sensitivity to the age composition of forecasts, and will provide more year-to-year stability to stock specific exploitation rates. Implementation of this methodology would also help address the discrepancies between observed sub-legal encounters and model estimated values. Implementation for 2014 is pending co-manager review.

2) Incorporate estimates of legal and sub-legal Chinook fishery encounters from recent sampling information into FRAM's base period type data. The updated sublegal encounter estimates, for all FRAM fisheries, uses recent and "best" data sources such as test fishing, interview data, updated agency estimates, etc.

   Associated with incorporating recent sublegal and legal encounter information into modeling, the FRAM encounter algorithms that maintain a consistent number of total encounters for a fishery if the minimum size limit changes (as presented last October) is being re-evaluated. If implemented, the 'constant encounter algorithm' would only be needed if a size limit change is proposed; this would be an interim measure until a new Chinook FRAM calibration allows incorporation of new size limit algorithms. The recent year sublegal encounter information in FRAM will be available for 2014. Implementation of a method to evaluate changes in minimum size limits for 2014 is pending co-manager review.

3) Progress Report: Development of new Chinook FRAM base period incorporating recent year (2007-2011) CWT recovery data, encounter rates, etc and modifications to FRAM algorithms on assessing sublegal and legal encounters and changes in minimum size limits.

There were other topics identified as potential MEW responsibilities last spring:

Regarding the task to "explore incorporating the coho FRAM bias correction method for mark-selective fisheries into Chinook FRAM", initial work has demonstrated that coding this bias-correction method would be considerably more difficult for Chinook FRAM. Given the relatively small bias demonstrated in large coho mark selective fisheries, the bias resulting from comparably small Chinook mark selective fisheries does not warrant increasing the complexity of the Chinook FRAM program.

A FRAM User Manual, updated for the FRAM Visual Studio version, is still a work in-progress.

Evaluate bias in coho mark rates in preseason forecasts and postseason estimates in mark-selective coho fisheries north of Cape Falcon. Little progress made here.

PFMC
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