Atlantic States Marine Fisheries Commission

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Shad & River Herring Stock Assessment Subcommittee
Call Summary

December 21, 2016

Technical Committee Members: Mike Brown, Mike Bailey, Kiersten Curti, Kevin Sullivan, Ben Gahagan

ASMFC Staff: Jeff Kipp

The Stock Assessment Subcommittee met to review the data that has been submitted by states, discuss SCAA models for Massachusetts and North Carolina, review the prior calculations for Z reference points and divide the river herring trend analyses tasks.

Jeff reviewed the data submitted to this point and went over the spreadsheet used to track the specific data sets for analyses and where to find these data sets on the FTP site. SAS members can use this spreadsheet as a reference for pulling data. Data should be cross referenced with the description and figures/tables of data sets used in the 2012 benchmark assessment to confirm they match. For example, if an analysis was done be sex for a river, the analysis should be updated by sex. Jeff will send the spreadsheet to TC members so they can confirm the correct data sets are being used. The only state that has not submitted data is NC. Kiersten will submit index and biological sampling data from the NMFS bottom trawl survey.

Jeff updated the group on the status of the SCAA updates. All three models (Monument, Nanticoke, and Chowan) still have continuous data sets necessary for updating these models. The Nanticoke will not have catch, as the fishery was closed after the benchmark. Gary Nelson volunteered to update the Monument and Chowan models and Jeff will update the Nanticoke model.

Kiersten will look into data used for total mortality reference point calculations and new data available for updated reference point calculations. The group also reviewed language in the ASMFC *Development and Use of Reference Points*. The SAS is leaning towards not updating the total mortality reference point calculations, citing this language, but will make a final decision once the data for calculations is reviewed.

Jeff mentioned that new data sets were not highlighted when data were submitted. The group discussed if new data sets should be considered. The group came to the conclusion that if a data set was specifically noted as not used in the analyses in 2012 because of a short time series, it can be considered for use in the update. The data set would also need to be a

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minimum of 10 years or the number of years used as criteria by the SAS in 2012. Jeff will look through the assessment to identify if a time series criteria is mentioned. He will also compile a list of data sets that could be used in the analyses, but were not in the benchmark because the time series was too short (explicitly stated in the report).

The trend analysis workload was divided by data type. Kevin Sullivan will work on the trend analyses of run counts, YOY surveys, and mean length. Mike Brown will work on trend analyses of Z estimates (age-based and repeat-spawner based). Ben Gahagan will work on trend analyses of max age and repeat spawner rates. Kevin and Ben will work together on the trend analysis of mean length-at-age. Mike Bailey will work on trend analyses of commercial CPUE, trawl surveys, and other surveys. Jeff will work on trend analysis of in-river exploitation. Jeff will reach out to the trend analysis leads from the benchmark assessment to get R code, if available, and will upload code to the FTP site.

Kiersten is hesitant to volunteer for ARIMA due to workload on other assessments. Jeff will check to see if Ed Hale is able to do the analysis for all indices. Code was provided by John Sweka for this analysis. The SAS agreed that reference point decisions made during the benchmark assessment should be followed in the update. Below is language from the assessment report describing the reference points for the ARIMA analysis.

"In this analysis, the final year of a given trawl survey was compared to the 25th percentile of the fitted index values and a confidence level of 80% was used to assess the probability of the final year of the survey being less than the 25th percentile reference point [P(<0.25)]."

The next call will be in January to discuss any remaining needs (data or clarification on methods) to start analyses. Kiersten will update the group on data for total mortality reference points. Jeff will provide a list of data sets not used in the benchmark that could potentially be used in the update.