

SEDAR 70 Assessment Webinar III
Gulf of Mexico Greater Amberjack
August 20, 2020 from 1:00 PM to 2:30 PM
Summary Report

Progress through Assessment Webinar II was reviewed. Commercial longline age composition data were reviewed, with low sample sizes resulting in several years being dropped from further analysis. Recreational age composition data come mostly from the for-hire mode, and were weighted by the corresponding length composition data, with only a few years dropped due to sample size. The same was true for headboat age composition data; however, more years of the headboat data were dropped due to low sample size. This exercise helped to clean up the age composition data, and helped address low sampling, especially in the 1990s.

Fleet-specific time blocks are being used to account for changes in the regulatory environment. Model fits to the commercial handline weighted length compositions are improved, but remain poor for the commercial longline, private recreational, headboat, and the combined video survey indices. Generally, the model appears to be missing smaller fish in the observed landings. Despite this, residual patterns are much more reasonable than those from SEDAR 33, which is the result of the weighting of the composition data and the use of a spline function instead of the typical delta lognormal approach. Fits to age composition data tend to miss the peak of the distribution for all fleets, but follow trends satisfactorily.

Parameterization of the base model was described, as in the previous assessment webinars. Notably, steepness, R_0 , and σ_R are all being estimated by the base model. The terminal year for data is 2018. Jitter analyses result in four of 100 runs falling outside of the result reached by the base model, indicating stability; any lack thereof is still coming from composition data, which were subject to the aforementioned sample size issues. Steepness is predicted to be 0.68, or 0.79 without using a prior with a narrow standard deviation. Without a prior, R_0 profiled to an estimate of 8.545. σ_R was set at 0.6 in SEDAR 33, but the current base model settled on an estimate of 0.4496. Retrospective analyses, which look at removing successive years of data to search for variability in model results, demonstrated good stability. Jackknife analyses, which remove individual indices to see if the model is overly sensitive to any one index, also showed the model was stable, and didn't rely on any one index disproportionately to the others. The AW Panel was comfortable moving forward with the predicted values for steepness, R_0 , and σ_R .

Sensitivity analyses were reviewed, and a supplemental surplus production model will be developed for comparison purposes to the proposed base model. Assessment Webinar IV will be held on September 11, 2020. The draft Assessment Report will be due thereafter.

Participants:

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