ASMFC Summer Flounder, Scup, Black Sea Bass Technical Committee Meeting Notes

9/20/2013

The Summer Flounder, Scup, and Black Sea Bass Technical Committee (TC) met to discuss approaches for setting future recreational measures. The TC reviewed two projects- A Model to Evaluate Recreational Management Measures by John Ward ; and Summer Flounder Management Strategy Evaluation by Mike Wilberg and John Weidenmann- to assess their utility in informing the recreational specification process. Listed below are the summary reviews of each project, followed by more detailed review notes. Both models have the potential to inform the management process but need further evaluation before the TC recommends the models for management use. It should be noted that *both* modeling efforts rely heavily upon inputs such as the Marine Recreational Information Program and all of its inherent assumptions.

A Model to Evaluate Recreational Management Measures using MRIP data *(J.Ward)*

The TC expressed interest in the results of this project and methodology, specifically in its capability to predict proportional and directional effects of landings in relation to recreational regulatory changes while also incorporating non-biological factors. The TC would like to request that the analysis be re-run using only the portion of total time series that reflects the current regulatory regime (approx. 1997-present; time period of the implementation of commercial quota into fishery, etc.). Additionally, the TC requests sensitivity runs to determine how sensitive outputs are to changes in some of the fishery variables used in the model. A time table to complete this additional analysis is will be known after further consultation with John Ward.

As currently run, the outputs from the analysis currently lack realism. In particular the model indicates more fish harvested at a 17" minimum size limit than it does at a 16" minimum size. In addition, it does not capture increased harvest by states that had previously fished under more restrictive minimum size rules. Some TC members expressed concerns regarding the off-shore vs. in-shore variable effect on landings at size data. These patterns have to be understood before further work with the model should proceed-the TC will look to discuss this element of the model in more detail with John Ward. The TC requests testing of projected vs. actually landings for the last 3 years as a way to retrospectively test the model's landings output versus what was "known" to have been landed in those years. Lastly, the TC requests more information regarding the response variable calculation.

Overall, the TC expressed interest in this modeling technique and found it to be a tool that has the potential to generate state by state measures in a consistent manner, rather than the current ad-hoc methods employed by the TC. The ability of this tool to incorporate extra fishery

variables in a quantitative manner-which has not been previously available to the TC – would be informative in the specification setting process.

Summer Flounder Management Strategy Evaluation *(PMAFS)*

The TC expressed interest in the analysis presented by Mike Wilberg, specifically in its ability to predict management success with currently available management tools. The TC would like to request PMAFS explore model sensitivity to non-compliance with size limits and possession limits. As estimated by M Wilberg, the time table to complete this additional analysis was estimated to be approximately 3-4 months.

The TC stated that this model could potentially be used to set consistent management measures within a region, and then test variations on those regional management measures to meet some a priori goals such as similar ACL buffers to decrease the probability of exceeding the ACL). The model could also provide a regionally defined allocation level, which could serve as a starting point to examine what allocations are needed in each area to meet fishermen retention goals. As estimated by M Wilberg, the time table to complete this additional analysis was estimated to be approximately 1 month (Due to current workload, any changes to this model would not be started until January 2014).

NOTES:

A Model for Evaluate Recreational Management Measures by John Ward

Current Issues

- As indicated by the principle investigator, the model is not believed to be a tool for precisely predicting landings
- At this point this modeling approach will not completely replace the existing recreational specification setting process
    - The current system uses the most recent year's catch data
- There were concerns regarding assumptions about the quality of the data. These concerns are not very different from assumptions made for the current ad hoc method used to set specifications

- Some in the group felt the current outputs don't have 'realism', particularly with regard to some specific states and their landings outputs from the model

Areas of Interest

- Predicts proportional and directional effects of recreational regulatory changes
- Potentially highly customizable to state, regional, and coast wide levels
- Does incorporate non-biological factors (i.e. economic effects, set of parameters representing extra fishery effects that are expected to affect angler behavior)
- Further exploration of the method is needed
    - Time series (current regime- since conservation equivalency and commercial quotas went into effect)
- Retrospective testing of projected landings versus state specific recreational landings from past years
- Comparative work using this project and PMAFS project
- May have varying degrees of accuracy depending on the state

Summer Flounder Management Strategy Evaluation *(PMAFS)*

Concerns

- Difficulty of defining it beyond the two regions used (north-south divide at Hudson Canyon)
- Assumption in the model of 100% compliance with set regulations

- The stock recruit relationship used in the model projections is a defined function, but has a high level of variance associated with it. This concern is no different than any modeling approach that uses a poorly defined recruitment relationship

- The model incorporates all the same assumptions as the stock assessment
- Season limits or effects aren't currently applied

Areas of Interest

- Actively attempts to minimize discards, which is a stated goal of the management board
- Has the ability to predict management success with currently available tools
- The definition and quality of the input data is good in that it accounts for sex-specific, area specific differences of the species.
- The model has an ability to incorporate length distribution information
- The model has an ability to test broad management scale analyses, such as slot-limits
- The model has an ability to model different hypothesized population dynamics including size, sex, and distribution
- The model has the potential to test the equitable distribution of allocations between the regions by balancing overages and probabilities of management success
- There is an ability to explore the inclusion of ACT buffers in to management (80%,90% in relation to 100%)
- The model is a good tool for assessing risk
- The model is a good tool for testing other management option analyses