Menhaden Technical Committee
Meeting Summary
September 28, 2010

Participants:

Alexei Sharov (MD)	Joe Smith (NOAA)
Jason McNamee (RI)	Kurt Gottshall (CT)
Matt Cieri (ME)	Jeff Brust (NJ)
Doug Vaughan (NOAA)	Micah Dean (MA)
Trish Murphey (NC)	John Maiolo
Behzad Mahmoudi (FL)	Rob Latour (VA-Menhaden TC Chair)

Others: Bill Goldsborough, Ron Lukens, Mike Prager

Staff: Genny Nesslage, Brad Spear, Bob Beal

Review of Amendment 1 Triggers and 2010 Fishery to Date

- Reviewed two triggers from Amendment 1: CPUE and proportion of 2-4 year olds in catch-at-age matrix over past 20 yrs; both declined slightly in 2009 from recent yrs , but do not fall below threshold(s)
- Landings are up in 2010; 45% over landings for equivalent time in 2009; 32% over previous 5-yr average.
- A projection of 'final' coastwide 2010 landings for reduction: may be similar to 2007, ie, ~175,000 metric tons.
- Fishery in Chesapeake Bay started ~ two weeks earlier (~May 10th) than in recent years; Warm spring, fish appeared in good numbers early in VA waters.
- Atlantic menhaden abundant in Ches Bay and Va ocean waters through summer.
- Omega Protein plant still with processing problems; combined with abundance of fish, Omega boats fishing in Ches Bay this summer on factory-imposed ½ boat-load daily quotas
- Good fishing off NJ July and August also
- Five "snapper" vessels fishing for bait in VA in 2010; one more than in 2009
- Numerous boats fishing on menhaden for bait off NJ this summer: ~5-6 NJ vessels, 2 from RI and several from ME; some RI and ME boats using 'run boats' to transport catches back to New England. Considerable amount of bait fishing off NJ in EEZ. Much of NJ catch going to N England for lobster bait.
- Herring fishery catch off N England is down this year which is increasing the amount of menhaden used for lobster bait; heavier fishing off NJ

Joe will send spotter log data with write up to the TC

Review Board tasks/priorities regarding alternative reference points

- Brad S. reviewed board tasks/priorities regarding the reference points.

- The TC would like to conduct a policy optimization. The TC could recommend a MSE but the board would need to focus its goals. The first step is to introduce a concept and develop a roadmap.

Presentation and discussion of %MSP Report

- Alexi reviewed the %MSP report based on data inputs from the 2010 stock assessment
- Difference between full F and N-weighted F must be made clear so that we are comparing apples to apples
- Neither time-varying M nor a sensitivity to a range of M's was considered. This will have profound effect but wanted to deal with the F issue first
- The analysis showed consistency with peer review back of the envelop calculation of % current unfished biomass of <10%
- TC is to review and check numbers in the calculation
- There is an inconsistency in mid year fecundity and end of year assumed in the stock assessment- this should be double checked and made consistent
- There is a sensitivity in choices of M. Can give a range to the Board with caveats based on multi species interactions predicted by MSTC. TC should explain to the Board the concept that M can remain constant even as consumption changes if population size changes.
- The model can look at feedback comprising of a range of steepness and Fs.
- Question raised about ability of population to produce higher harvests (Fig 5) at higher Fs if 2010 report showed decline in yield at higher Fs.
- Alexei will refine projection work given feedback from TC. Will use four F scenarios presented by Jay as a starting point for analyses (add uncertainty to current SR, interquartile ranges, random SR values, or broken into time periods). This will be completed in time for a web based call at the end of October.
- Will ask the SAS to make parallel YPR runs using BAM software to compare output with toolbox software.
- Rob and Alexei will put together the pros and cons and put them into context for the Board
- Rob will summarize caveats/assumption of SPR calculations for Board
    - Equilibrium
    - Time invariant M – doesn't jive with assumptions BAM time-varying M
    - Selectivity and growth assumptions are time-specific
    - Underlying density dependent relationship is ignored
    - Fishing at F=0 you get virgin biomass
    - Strictly F, no Biomass
- Rob will summarize caveats/assumption of F_{med} for Board
    - Based on F_{rep} so long-term average should replace itself (median should = F_{med}), but F_{med} depends on history of stock exploitation and it not always a true measure of Frep (e.g. if population in consistent decline, or if regime changes)
    - Trying to find empirically through observation over long time period, the level of Frep
    - Derived from managing fishery performance point of view (vs. manage relative to some unfished target SPR approach)
- Rob will put together info for Board presentation to articulate difference between Fmed and %MSP approaches (measured against past fishing to achieve certain productivity vs based on objective to achieve certain % of unfished biomass).
- Alexei will check if selectivity is on small fish historically

- Show Board other %MSP examples for comparison (wide range even among clupeids)-40 grouper, 20 herring

Presentation and discussion of simulation study plan to test appropriateness of F-based ref points

- Discussed framework/approach for conducting simulations. Expect results within a year.
- S-R relationship- how to model it? Lower priority because produces results with huge variation but sill useful to force BAM to see future cycle.
- Natural Mortality. Do we model/project using MSVPA model or using species specific models? For consistency, MSVPA is preferred but in short term not possible so use information from single species model projections. A caveat is the retrospective bias of each.
- Fishing Mortality. Test effect of F on the population. Also use results of SPR analysis. Can go back 20 years for data to conduct simulations. MSVPA only goes back 20 years. Use Full F and state it clearly. What are the criteria to evaluate if F-based is appropriate? Jay will look at after he has time to do his tasks.

Presentation and discussion of abundance-based reference points

- Matt will clean up presentation
- Almost all of the species are managed to achieve reproductive capacity. If Board gives abundance/numbers need justification.
- Abundance might be a better predictor of recruitment than SSB but this doesn't make biological sense.
- Density dependent picture different from Gulf Menhaden, Atlantic Herring, and Pacific Sardine. Might be most like the Atlantic Herring.
- If tie reference points to model generated abundance it shows very much overfished. This is a very different picture than Fecundity reference point. It can be explained by high variation in WAA.

Mike P. will send NMFS Beaufort paper on the correlation between striped bass and menhaden to Rob to circulate to the TC.

Rob will work with ASMFC staff to raise importance of Beaufort and its institutional knowledge to NMFS and the Board. State clearly the areas needed for transition planning: modeling and aging.

Jeff Brust is nominated and elected Vice Chair