

Atlantic States Marine Fisheries Commission

**Atlantic Croaker Technical Committee**

*September 17, 2007*

*Raleigh, NC*

**Meeting Report**

**Attendance**

Russ Allen (NJ DFW)

Gabe Gaddis (GA CRD)

Wilson Laney (USFWS SA Fisheries)

Joseph Munyandorero (FL FWRI)

Rob O'Reilly (VMRC)

Harry Rickabaugh (MD DNR)

Katy West (NC DMF)

Nichola Meserve (ASMFC)

**Meeting Overview**

The Technical Committee (TC) met with the main objective of reviewing the 2007 trigger exercises and determining what would be presented to the Board. Other agenda items included electing a chair and vice chair and considering the timeline for the next assessment. The TC last met on August 29, 2006.

**Elections**

Harry Rickabaugh and Gabe Gaddis were elected chair and vice chair of the TC, effective immediately.

**Overview of Trigger Exercises**

Prior to the TC's meeting, tasks were assigned to collect the data required for the annual trigger exercises. In the absence of a chair, Rob agreed to lead this data collection and analysis, as he was the chair for the 2006 trigger exercises. Harry will present the triggers to the Board in October. Nichola will prepare a hand out of the presentation with any supplemental materials.

Rob reviewed the triggers in Amendment 1, which if met would trigger a stock assessment sooner than that currently scheduled for the fall of 2009. The main trigger is the landings trigger for both commercial and recreational sectors. This is the only hard, quantitative trigger in use. Next is the biological monitoring trigger, which looks at mean length-at-age, mean weight-at-age, and catch-at-age to provide a qualitative indication of the stock's health. This is the second strongest trigger. Third is the catch-per-unit-effort trigger, which the TC hopes will replace the landings trigger in the future. During the 2006 trigger exercises, the TC determined that this trigger was not yet ready to replace the landings trigger. The MRFSS CPUE trigger has not been updated since the last assessment, because Janaka de Silva previously put it together and he is no longer available. Rob wasn't sure if it was the workload or the trigger's strength that had kept this from being updated, but he advised the TC to keep it in mind as it is being used as an index for other species. Lastly, there is a set of survey indices to help guide the Board on stock status.

These triggers are looked at either by state, or with a north-south split to match the assessment. Because there has not been enough data to conduct a South-Atlantic assessment (South Carolina

through Florida) an assessment for that region cannot really be triggered. Rob also reminded the group that several folks had wanted to redefine the split at Cape Hatteras, North Carolina, rather than at the North Carolina-South Carolina border.

### **Landings Trigger**

This trigger compares recreational and commercial landings for 2006 to the 2004-2005 average for each region. A 70% decline was not seen in any category. The landings for the South Atlantic are drastically smaller than for the Mid-Atlantic. The TC decided to add another column into the figure showing what percent the most recent year's landings were of the previous two years' landings. The TC also determined that the data for the commercial trigger should be NMFS data rather than state data, except if the 2006 NMFS data are still preliminary in which case state-reported data should be used.

### **Recreational Mean Length Trigger**

Rob described the method for developing the weighted mean length per year per region for this trigger. The trigger uses all MRFSS data, information which was added to the table title. Overall, there is a trend towards larger mean lengths and nothing indicated a problem to the TC. Joseph noted that the mean lengths are smaller in the South Atlantic than the Mid-Atlantic. Rob thought that this is a stock difference, rather than the product of any gear selectivity because hook and line is the main gear for both regions. Rob noted that the 2005 and 2006 numbers are a little different from what was shown last year, due to revisions of the "final" MRFSS data used.

### **Catch-at-Age Trigger**

The age compositions of several commercial fisheries were presented for Virginia and Maryland. The 2004, 2005, and 2006 data are shown as numbers at age for Virginia and pounds at age for Maryland. Both sets of graphs need to have the y-axis standardized for the three years. In both states' data you can track several year classes through the years. However, in Virginia, it is the 3-4-5 age classes, while in Maryland it is the 2-3-4 age classes. It was questioned why this should differ for two adjacent states, if it was more than the large difference in numbers of fish caught between the two states. It was noted that Maryland ages its fish at SC DNR, while Virginia uses ODU. Harry thought that it could be the difference of counting the first annulus. It was suggested that Harry be prepared to get this question from the Board (and try looking at recreational releases). This discussion highlighted the need for an Atlantic croaker ageing workshop, something that has been in the list of research recommendations for several years now. Nichola indicated that the Red Drum TC had asked for a red drum ageing workshop to be put in the 2008 budget, and that she would see if the budget could accommodate a dual croaker-red drum ageing workshop.

### **Mean Length-at-Age Trigger**

The mean total length-at-age was presented for three Virginia commercial fisheries and the Maryland and North Carolina commercial fisheries. Although sample sizes are small for the older age groups, each figure is presented without an aggregate age group because eventually it should fill in with more samples. The table of values for Virginia's figure will be included in the handout for the Board. The TC determined that the number of samples for each year should be included in the legend. The North Carolina figure caused some concern for there seems to be a pattern of smaller length-at-age in 2006.

### **Mean Weight-at-Age Trigger**

The mean weight-at-age was presented from Virginia, Maryland, and North Carolina. The TC discussed how the values were calculated and weighted, which turned out to be differently between the three states. While this makes little difference in the values, next year the method should be standardized. The TC thus discussed developing a template, like that used for striped bass, to collect and standardized the trigger exercises. This would also be useful as the next stock assessment gets under way next year. Rob has an Excel file that he uses for Virginia croaker data that can be used as a starting point, which he will share. The Virginia title needs to be changed to include “ gill net, haul seine, and pound net combined.” Virginia shows some increases and decreases at age in 2006. For the Maryland data, in the middle ages (3-6), mean weight-at-age increases annually, while the older and younger ages show some variability. This is likely due to small sample size for the older ages and incomplete recruitment at the younger ages. The Board should be told that the middle ages are the best to look at for an indication of stock size. These figures should include a table of sample size at age per year in the hand out version for the Board. The TC determined that two tables of recreational and commercial landings by state should also be included. Katy indicated that the North Carolina mean weights-at-age might show some decline in 2006, but that it could be a product of sample size and inshore versus offshore fish.

### **Catch-Per-Unit-Effort Trigger**

Harvest, number of trips, and average catch per trip were presented for several Virginia, North Carolina, and Florida commercial fisheries. Overall, the CPUEs are good enough to present, but not ready to be the main trigger yet. Rob reported that Virginia’s data was a bit different from last year, because when Joe Cimino queried the database he removed outliers, such as when a net didn’t soak long enough or too long, which Rob didn’t do this time. Joe thought he could reproduce it for this year, but it might not be worth the time because the change would be small and the CPUEs are not the main trigger yet. For Virginia, there is a lot of data since mandatory reporting began in 1993, and it will take someone with a lot of patience to work on it and decide how best to produce a meaningful index. In Virginia, pound net trips are declining, although so are landings so the CPUE is relatively flat. This highlighted the importance of presenting trips, harvest, and CPUE for each fishery. Gill net trips, harvest, and CPUE show little change over the time series. Haul seine trips and harvest are pretty stable, yet there appears to be a bit of a drop in CPUE after 2003, although it is to levels seen in the mid and late 1990s. It’s worth paying attention to and the TC should see where it goes next year. Several TC members noted that croaker abundance seems to fluctuate on a 20-year cycle and the resource has been high for nearly 10 years and it won’t last forever. For North Carolina, the TC determined that just the flynet and ocean sink gillnet data should be presented, as these are the two main gears. Figures need to be produced for ocean sink gillnet as estuarine and ocean sink gillnets were combined in what was presented. Figures showing harvest and trips need to be produced as well. Ocean sink gillnet trips have been going down, likely because of the abundance of dogfish and other regulations. For Florida, some of the figures were mislabeled in some version of the slides, so care should be taken to make sure they are correct. The TC decided to present just cast net and hook and line for Florida. Gillnets have been prohibited since 1995, so effort is in the EEZ and landings are bycatch. Trawl landings are also bycatch. Cast net in the main gear for croaker.

### **MRFSS CPUE**

This trigger will remain incomplete for this year’s review of the trigger exercises. It has not been produced since the last assessment because it was done by someone who is no longer available to

update it. Harry can report to the Board that the Stock Assessment Subcommittee will need to determine whether or not to produce a fisheries-dependent CPUE index and how when it begins the next assessment.

### **Abundance Indices**

Several improvements were made to the summary table of indices. Harry clarified that one of the Maryland indices (MDDNR CBT GM) was actually an erroneous duplicate of one of the indices that he had sent the right values for, so it was removed. The “NC CPUE weight” index was removed because there is no record of how it was produced, so it is rather meaningless and cannot be updated. Joseph reported that the state’s Fishery-Independent Monitoring group said indices before 1996 were based on variable, non-standardized, sampling designs. The “Florida trawl numbers” index was removed for this reason and because it was only available for the first eight years of the sampling program. For the MRFSS CPUE index in the table an \* will indicate that the SASC will update these in the next assessment. It was discussed whether the indices should be standardized (all geometric mean or arithmetic mean, by calendar year or other) and how the indices might be better presented. The TC decided that the SASC would need to decide these things, and opted to keep the table as is to be handed out to the Board and present figures of the NMFS and SEAMAP indices. The table will be accompanied by some information on each index. Everyone should send Harry a brief sentence or two on their surveys.

### **Other Information for the Board**

The TC discussed if anything else should be presented to the Board such as progress on the research recommendations since the last assessment. One of those items is the ageing workshop. This led to discussion on how research recommendations are acted upon, if the Commission has some method through the Science Department, or if it is up to individual states or other parties to fulfill a recommendation. Nichola will look more into this topic and see if an ageing workshop for Atlantic croaker could fit in the 2008 budget.

### **Stock Assessment Timeline**

The TC was asked for any input on delaying the SEDAR assessment one cycle from the fall of 2009 to the spring of 2010, which may happen due to a heavy SEDAR schedule for 2009. The TC was more concerned about having individuals to conduct the assessment, rather than the actual timing of it. The triggers provide a means of monitoring the stock should the assessment be delayed 6 months. This issue of qualified personnel to conduct an assessment for croaker should be looked into immediately.