

## Atlantic Croaker Technical Committee

August 29, 2006  
Raleigh, NC

### MEETING SUMMARY

#### Participants

Rob O'Reilly, Chair (VMRC)  
Russ Allen (NJ DFW)  
Harry Rickabaugh (MD DNR)  
Nichola Meserve (ASMFC)

Mike Potthoff (NC DMF)  
Charlie Wenner (SC DNR)  
Helen Takada (NC DMF)

Joseph Munyandorero (FL FWRI)  
Wilson Laney (USFWS)  
Gabe Gaddis (GA DNR/CRD)

Absent with foreknowledge: Erik Williams (NMFS), John Clark (DE DFW)

#### Meeting Summary

The Atlantic Croaker Technical Committee met on August 29, 2006 in Raleigh, NC. The major items on the agenda for the TC to address were: 1) review data and analyses required for assessing the triggers in Amendment 1; 2) determine which material would be presented to the South Atlantic Board at the Annual meeting, scheduled for late October 2006; and 3) determine future work for improving the triggers.

#### Approval of Agenda

Agenda approved with two additions.

- 1) Discussion of Chair and Vice Chair positions: Rob O'Reilly will continue to serve as the Chair until the Annual Board meeting in October. The TC had yet to elect a vice chair. Wilson Laney nominated Mike Potthoff of the NC DMF Pamlico District. Mike accepted the nomination, which was approved unanimously.
- 2) Description of an Atlantic croaker parasite study out of the College of Charleston by Charlie Wenner. This study examined over 300 infected Atlantic croaker and determined that the parasitic fauna showed a distinct northern group (north of North Carolina), southern group (south of North Carolina), and mixing group (off North Carolina) of Atlantic croaker. Charlie will email the thesis abstract to the TC.

#### Public Comment

No members of the public were present.

#### Amendment 1 Triggers

On May 16, 2006 the Technical Committee met via conference call to determine data collection and analysis tasks in preparation for this meeting. The task list was reviewed and the TC found that most of the tasks had been completed or were near completion.

#### **I. Landings Triggers**

The landings triggers are the main "hard" triggers being used to determine the need for a stock assessment this year. Amendment 1 states:

- 1) Relative percent change in landings
  - A) A stock assessment will be triggered if the most recent year's commercial landings are less than 70% of the previous two year's average landings.
  - B) A stock assessment will be triggered if the most recent year's recreational landings are less than 70% of the previous two year's average landings.

The TC expressed its satisfaction with the landings triggers being based on a comparison of the current year's landings to an average of the previous two years' landings, because Atlantic croaker has shown the capacity to crash very quickly. Prior to the meeting, Rob O'Reilly created a table that showed the commercial and recreational 2005 landings compared to the 2003-2004 average landings and the 2004 landings compared to the 2002-2003 average landings for the Mid-Atlantic and South Atlantic regions (see: trigger\_ldgs.exl). The TC agreed that the table was based on the best available data and presented the information well. The TC liked that the table would give the Board some perspective on the variability in landings data by presenting the trigger calculations for both 2004 and 2005. The TC asked that Rob O'Reilly specify that the South Atlantic data are based predominantly on Florida data when he presents this material to the Board. The TC concluded that the 2005 landings do not trigger a stock assessment.

## II. Biological Data Monitoring Triggers

The TC had gathered some state information to consider the biological data monitoring or "soft" trigger in Amendment 1, which state:

- 2) Biological Data Monitoring:
  - A) The technical committee will compare the most recent year's mean length data from the recreational fishery to the average of the last two years' mean lengths.
  - B) The technical committee will compare the most recent year's mean size (length and weight) data from the commercial fishery to the average of the last two years mean size (length and weight) data.
  - C) The technical committee will monitor the overall age composition (proportion at age) and calculate the mean size at age for the age groups that are present in the state samples.

### A. Recreational Biological Data Monitoring

The TC reviewed the compiled data and tables that compare the average mean length of recreationally caught Atlantic croaker from the last three years in the mid-Atlantic and South Atlantic regions (see: Cro mean 1.exl). The TC approved the table for presentation to the Board, but agreed that the raw data from the MRFSS would be required for the 2009 assessment.

### B. & C. Commercial Biological Data Monitoring

The TC determined to focus on 2.C. rather than 2.B. because it provides a more meaningful representation of the fishery and any changes from the previous two years.

#### *Mean size at age*

The TC had gathered commercial mean length and mean weight at age data from three states: Maryland, Virginia, and North Carolina. The TC reviewed the data and tables in the file: "Mean length and weight at age VA MD NC.exl." These graphs depict mean weight or mean length, per gear or all gears, per age, for 2003, 2004, and 2005.

- Maryland: all data is from the pound net fishery, which is close to 80% of the fishery. **Task:** Rob O'Reilly will make a note in the table that this is the case. Sample size increases in each subsequent year. Measurements are in total length. In the graphs, each age is shown (i.e., there is no plus group). There are some age 0 in the data.
- Virginia: data is from three major gears: gillnet, haul seine, and pound net. Mean length data are per gear; mean weight data are all gears combined. The figures use a 9+ age group. Age 2 in 2004 is sometimes low as compared to 2003 and 2005, which might be related to the sample size. Total sample size is above 300. Measurements are in total length.
- North Carolina: samples were taken at fish houses. Measurements are in total length. For this reason, Mike indicated the mean length and weight data were characteristic of the North Carolina commercial fisheries, but the age data was not collected in the

same manner.

Currently, Florida, New Jersey, and Delaware do not have this kind of data. New Jersey is starting an ACCSP sampling program on September 1 to collect 500 Atlantic croaker samples.

The TC approved these graphs with minor changes. The mean length at age figures will be altered by starting the y-axis at a higher number (~ 6 inches) to better depict the data. The figures will either all use an age 9+ age group, or have all ages separate. The figures will remain state specific. These figures (post changes) will be presented to the Board at the Annual meeting.

**Task:** Rob O'Reilly will alter the figures accordingly.

#### *Age composition*

The TC had gathered Atlantic croaker age composition data from two states: Maryland and Virginia. The TC reviewed the compiled data and figures in the files: "MD croaker info for triggers 2005usethislast.exl" and "03-05 croaker\_CAA.exl". These figures depict the age composition of the MD and VA commercial landings in 2003, 2004, and 2005.

The TC approved the graphs for presentation to the Board with minor changes. The figures will stay state specific, but each state's data will be separated into three graphs, one for each year of data. The figures will be stacked vertically so the reader can easily follow a specific year class. When the figures are presented to the Board, the difference in sampling time of year between Maryland and Virginia will be mentioned.

**Task:** Harry Rickabaugh will make the alterations to the Maryland figures.

**Task:** Rob O'Reilly will make the alterations to the Virginia figures.

The age composition data from a North Carolina fishery-independent study (NC 930 program) will not be presented to the Board at the Annual Meeting. The study suffers from low sample size and thus requires the extrapolation of data. This is a large undertaking, meanwhile the deadline for the meeting CD is fast approaching and the landings do not trigger a stock assessment. As such...

**Task:** Mike Potthoff will continue to work on this data and Rob O'Reilly will let the Board know that work is under way at the Annual Meeting.

There was some discussion of concerns about the aging conventions used by states. Desire was expressed to have an aging workshop. It was felt that because the otoliths of Atlantic croaker are easy to read, it should be straightforward to get all states to use the same methods. Rob O'Reilly will not mention this concern to the Board, but the TC will work to address it internally.

**Task:** Charlie Wenner and Rob O'Reilly will look into an Old Dominion University report on the methodology used, and states are encouraged to send slides of age samples. Charlie Wenner is the best source to contact, for those states that wish to circulate age samples.

**Task:** Mike Potthoff will circulate North Carolina's ageing methodology.

### **III. Catch-Per-Unit-Effort Triggers**

Amendment 1 states:

3) Effort vs. Landings (commercial)

- A) CPUE considerations for the near future: as effort data increases in quality, the trigger should change from a commercial landings basis to commercial CPUE by gear type. At this time, the technical committee will monitor effort (e.g. trips or days fished) vs. landings, on a gear type basis, to track parallel trends.

The TC maintained its recommendation to use CPUE (rather than landings) for the hard trigger

and has begun steps to move towards its use in the future as effort data increases in quality and quantity. The TC concluded that there is still much work to be done to reach the goal of CPUE as the premier trigger for determining the necessity of stock assessments for Atlantic croaker

The TC reviewed the quality and availability of CPUE data per state.

*Virginia:* Rob O'Reilly has looked at some effort data for Virginia, which has had daily reporting since 1993. With an entry license that provides an i.d., the sellers' transaction records are used to audit buyers. There is one problem that is in the process of being remedied in which some double counting of landings occurs between the state and NMFS. Rob O'Reilly thought that this could be happening in some other states too.

The TC looked at the file: "cpue\_VA.exl." Although the data had been cleaned up a little (i.e., ridiculous outliers removed from the raw data), Rob O'Reilly knows the data need further parsing before they can be considered as a primary trigger. The harvest shows some real variability, probably based on year class strength. This figure will go to the Board at the Annual meeting after being cleaned up some more.

**Task:** Rob O'Reilly will improve the graphic representation of the Virginia CPUE data by separating the data into individual figures per gear type. He may also remove more outliers, although he expressed reluctance to take out any data points that were borderline okay.

*Maryland:* Harry Rickabaugh has looked at Maryland's effort data but he said that it is not presentable because of all the reporting changes. He gave a brief overview of the changes that have occurred in Maryland's reporting system. Up to 2002, reporting was monthly only. Starting in mid-2002, Maryland tried daily trip reporting in a pilot area. After this some changes were made and then more areas were added over time. Because daily reporting wasn't implemented all at once, any daily data had to be collapsed back down to monthly. This year will be the first full year that the whole state is on the daily reporting log. There is still some inconsistency and identification error between dealer and fisher logs and the reporting of in- versus out-of-state sales. These can't be used to audit one another yet. (Note: Maryland is a small part of the mid-Atlantic data). Because of the reporting issues, Maryland data will not be used this year to look at CPUE nor reported to the Board in October.

*Florida:* while not collected before this meeting, it appears that Florida has some data that can be used to determine CPUE.

**Task:** Joseph Munyandorero will provide Florida's effort data to Rob O'Reilly by September 19 (in time for the Annual meeting briefing CD).

*North Carolina:* uses trip ticket reporting.

**Task:** Helen Takada and Mike Potthoff will produce some catch per trip data by gear to Rob O'Reilly before September 19.

*Delaware:* no representative was at the meeting, and no one present knew with certainty if the state has any data for calculating croaker CPUE.

*New Jersey:* no effort data currently available.

**Task:** Russ Allen will look back at some small mesh reporting in the next few months, although he suspects that there is probably not much Atlantic croaker being caught until the last few years.

*Georgia:* Gabe Gaddis reported that Georgia has little, if any, effort data.

## **Review MRFSS CPUE trigger**

Amendment 1 states:

- 4) The technical committee will continue to derive a MRFSS CPUE, on a directed trip basis, to examine state-by-state catch rates on an annual basis.

The TC recalled that this analysis had been produced by Janaka deSilva in the past, and that no further work had been done on it since 2002. Discussion moved to what to tell the Board about the TC's work on this trigger. It was decided that because the TC would be focusing on getting together commercial CPUE, the analyses for MRFSS CPUE would be too much to do before the Board meeting, especially because the methodology to do so was not clearly known by TC members present and there had been questions as to whether this was a suitable trigger to pursue at the last TC meeting.

**Task:** Rob O'Reilly will revisit the past work and circulate to the TC the methods that went into it. He will ask Eric Williams about the usability of that last index (through 2002). Preparing the data for this trigger will be a long-term assignment for the TC, if the committee finds reason to continue this index as a trigger.

**Task:** Charlie Wenner will supply some length frequency and CPUE data from a South Carolina recreational creel survey that has some croaker intercepts.

### **Review fishery-independent data**

Amendment 1, states:

5) Surveys

While considering the file "useSummaryINDEXES.ex1" which compiles the available fishery-independent indices, Rob O'Reilly provided a brief history on the use of the different indices in the assessment models. Because of this history, it was suggested, and determined, that the focus be placed on the NMFS, SEAMAP, and VIMS fishery-independent indices in the TC presentation to the Board at the Annual meeting. Board members would then be referred to a handout if they wished to look at the other state fishery-independent indices. For future trigger workshops, some additional indices from Georgia will be included as well.

**Task:** If not already done, each state will update the file "useSummaryINDEXES.ex1."

**Task:** Charlie Wenner will update the NMFS and SEAMAP indices, making sure they report in weight (not number), and send them to Rob O'Reilly.

**Task:** Joseph Munyandorero will do some research on Florida's indices that he had questions on.

### **Discussion on how to improve the calculations of the triggers**

It was determined that the "biological data monitoring" part of the Amendment 1 triggers needed clarification or alteration. Vice-chair Mike Potthoff suggested that this discussion might be more appropriate after the Board has seen the first trigger presentation from the TC.

Overall, the TC felt comfortable (risk adverse) in concluding that the changes seen in the landings data in the mid-Atlantic did not warrant a stock assessment (for example, the 16% decrease in recreational landings could result from year class effects or increasing gas prices, and other smaller changes could be within the error range for the calculations). There was general consensus that more data (other than just Florida) was necessary to increase confidence in the South Atlantic data. The TC felt that the Board ought to help the TC get more data from the South Atlantic, particularly to avoid a situation like that which occurred recently with weakfish (lack of data).

The TC also discussed the Board's concern regarding where to split the stock. It was felt that the Board wants to split at Cape Hatteras, NC, yet the TC feels that the way the data is collected makes that difficult, if not impossible. There was general consensus that the TC is in good shape and ahead of the game.

### **Meeting Adjourned**