

## MID-ATLANTIC FISHERY MANAGEMENT COUNCIL

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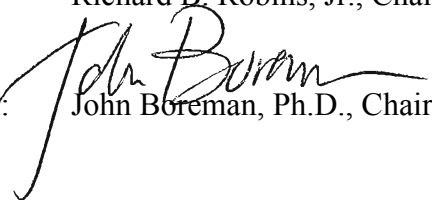
800 North State Street, Suite 201  
Dover, Delaware 19901  
Tel 302-674-2331  
Toll Free 877-446-2362  
Fax 302-674-5399  
www.mafmc.org

**Christopher M. Moore, Ph.D.**  
Executive Director

### MEMORANDUM

**DATE:** March 26, 2012

**TO:** Richard B. Robins, Jr., Chairman, Mid-Atlantic Fishery Management Council

**FROM:**  John Boreman, Ph.D., Chairman, MAFMC Scientific and Statistical Committee

**Subject:** Report of March 2012 Meeting of the MAFMC Scientific and Statistical Committee: Part 1  
– ABC Recommendation for Golden Tilefish

The Scientific and Statistical Committee (SSC) of the Mid-Atlantic Fishery Management Council (MAFMC) met on 21-22 March 2012 primarily to review stock assessment information and develop an acceptable biological catch (ABC) recommendation for golden tilefish. Additional topics on the agenda (Attachment 1) included discussions of the peer review performed on the management strategy evaluation of the ABC control rules conducted by the University of Maryland, criteria for setting multi-year ABCs for mid-Atlantic species, establishing criteria for prioritizing the SSC's research recommendations, and further development of advice from the SSC for the MAFMC's ecosystem-based fishery management initiative. In addition to SSC members present at the meeting were representatives of the MAFMC, the tilefish fishing industry, the NMFS Northeast Fisheries Science Center and Northeast Regional Office, the Pew Foundation, and the National Coalition for Marine Conservation (Attachment 2).

To ensure that the SSC's ABC recommendation for tilefish gets into the MAFMC's briefing book for their upcoming meeting, the report of our March 2012 meeting is in two parts: Part 1 – ABC Recommendation for Golden Tilefish, and Part 2 – Other Business. Part 2 will be distributed at or immediately before the April 2012 MAFMC meeting.

### **Golden Tilefish**

The SSC's consensus responses to the nine terms of reference associated with the ABC for golden tilefish are provided below.

*1) The materials considered in reaching its recommendations:*

- MAFMC staff memorandum from Jose Montañez to Chris Moore, "Tilefish Management Measures for Fishing Years 2013-2015," dated 29 February 2012. 41 pp.

- 2012 Tilefish (SMB) Advisory Panel (AP) Fishery Performance Report (FPR) (undated). 3 pp.
- MAFMC Staff. Golden tilefish AP information document – January 2012. 18 pp.
- Northeast Fisheries Science Center. 2009. 48th Northeast Regional Stock Assessment Workshop (48th SAW) Assessment Summary Report. US Dept Commerce, Northeast Fisheries Science Center Reference Document 09-10; 50 pp.
- Southern Demersal Working Group. 2009. A. Assessment of Golden Tilefish, *Lopholatilus chamaeleonticeps*, in the Middle Atlantic-Southern New England Region. 48<sup>th</sup> SAW Assessment Report. Northeast Fisheries Science Center. 170 pp.
- Sullivan, P., M. Bell, J. Gibson, and S. Kupschus. 2009. Summary Report of the 48th Northeast Regional Stock Assessment Review Committee (SARC 48). 39 pp.
- Bell, M. C. 2009. SARC 48: Tilefish, Ocean quahog, Weakfish Benchmark Stock Assessments. External Independent Peer Review, Center for Independent Experts. 46 pp.
- Gibson, J. 2009. Reviewer Report to the Center for Independent Experts on the Tilefish, Ocean Quahog and Weakfish Benchmark Stock Assessment Review (SARC 48) held June 1-4, 2009 in Woods Hole, Massachusetts. Center for Independent Experts. 38 pp.
- Kupschus, S. 2009. Report on the 2009 Tilefish, Ocean Quahog and Weakfish Benchmark Stock Assessment. Center for Independent Experts. 43 pp.

All documents listed were available on the MAFMC SSC website prior to the meeting.

*2) The level (1-4) that the SSC deems most appropriate for the information content of the most recent stock assessment, based on criteria listed in the Omnibus Amendment:*

The SSC determined that the tilefish assessment should be categorized as a **Level 4** – the SSC did not accept the reference points from the ASPIC or the SCALE models because of the divergent patterns from these two models and the high degree of uncertainty associated with reference points.

*3) If possible, the level of catch (in weight) associated with the overfishing limit (OFL) based on the maximum fishing mortality rate threshold:*

Because the assessment for this stock was categorized as a Level 4 assessment, it is not possible to provide an OFL.

*4) The level of catch (in weight) associated with the acceptable biological catch (ABC) for the stock. The ABC will be selected based on the overfishing definition contained in the FMP, and will reflect the level of scientific uncertainty inherent in the stock assessment such that the recommended ABC is less than or equal to the overfishing limit consistent with the Council's risk policy described in the Omnibus Amendment, the Act, and the National Standard 1 Guidelines to the Act:*

The SSC recommends a constant landings policy. Specifically, the SSC recommends an ABC of **913\* mt**. The SSC makes the strong recommendation that the Monitoring Committee establish the TAL not to exceed 905 mt, based on the established rebuilding schedule and historical performance of the stock and the fishery at this level of landings.

Following the discussion later in the meeting on establishment of criteria for setting multi-year ABCs (see Part 2 of the meeting report), the SSC recommended setting the ABC of 913 mt for two years in the expectation that a benchmark assessment of tilefish will be performed in 2013. The SSC will revisit its ABC recommendation for tilefish next year, and will be paying particular attention to: (1) the length-frequency distribution of the commercial catch, especially with regard to signs of strong incoming recruitment; (2) any significant changes in the spatial or temporal distribution of fishery effort (as noted in the 2013 report of the Industry Advisory Panel); and (3) any significant changes in the discard pattern

or amount. These or other factors may cause the SSC to change its ABC recommendation for the 2014 fishing year.

\* The 913 mt level is based on a maximum discard of 8 mt (Tilefish AP recommendations 2012). The 8 mt was added to the historical landings threshold ( $905 + 8 = 913$  mt). The SSC also notes the recreational catch was included in scientific uncertainty.

*5) If possible, the probability of overfishing associated with the OFL and ABC catch level recommendations:*

The probability of overfishing associated with the OFL and ABC could not be determined.

*6) The most significant sources of scientific uncertainty associated with determination of OFL and ABC:*

- Reliance on commercial CPUE time series (lack of a fishery-independent index of abundance; lack of fishery-independent indices of stock characteristics including age, sex-ratio, spatial distribution, and habitat associations; lack of understanding of the recruitment pattern; uncertainty over stock structure at regional and local scales; and uncertainty over the fraction of the stock that is vulnerable to exploitation);
- Potential for localized depletion;
- Divergence of ASPIC and SCALE model results because they make different assumptions over population dynamic processes (the episodic recruitment pattern of tilefish challenges the ASPIC, and data demands of SCALE are not fully met);
- Uncertainty over selectivity pattern in the fishery; and
- Uncertainty over lack of information on discard and recreational harvest.

*7) Ecosystem considerations that the SSC took into account, beyond those already incorporated into the stock assessment, in selecting the ABC, and the basis for those considerations:*

No additional ecosystem considerations were applied in calculating the ABC.

*8) A certification that the recommendations provided by the SSC represent the best scientific information available:*

To the best of the SSC's knowledge, these recommendations are based on the best available scientific information.

*9) List high priority research or monitoring recommendations that would reduce the scientific uncertainty in the ABC recommendation.*

- Understand the role of tilefish in creating secondary habitats through their burrowing activity, thereby increasing diversity and the extent to which this diversity is compromised by the removal of these ecosystem engineers by the fishery;
- Understand the causes in the pattern and variability in recruitment;
- Quantify and understand the spatial dynamics of the stock and the fishery (specifically, assess historical changes in the distribution of fishing effort, develop haul-by-haul information on the spatial and temporal distribution of catch, and evaluate the potential of a rigorously-designed study fleet program);
- Assess the potential for and extent of local population structure;
- Assess coherence between north and south Atlantic stocks and evaluate the effects of climate indices in driving stock dynamics;

- Evaluate the potential effect of time-varying catchability on assessment models that rely on commercial CPUE data; and
- Evaluate the potential for a stakeholder survey to assess extent of population outside of normal fishing area.

#### Attachments

cc:

MAFMC SSC Members, R. Seagraves, J. Montañez, L. Anderson, C. Moore

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Mid-Atlantic Fishery Management Council  
Scientific and Statistical Committee Meeting  
21-22 March 2012  
Agenda

**Wednesday March 21, 2012**

- 1000 Tilefish ABC recommendation
- 1200 Lunch
- 1300 Tilefish ABC cont.
- 1500 Report on Peer Review of Management Strategy Evaluation Study
- 1700 Adjourn

**Thursday March 22, 2012**

- 0830 SUN Report on multi-year ABC specifications
- 1000 Subcommittee Report on Research Prioritization
- 1130 Technical Guidance on Ecosystem Based Fishery Management  
-Duke Group Masters Project
- 1300 Adjourn

**ATTENDANCE**  
 Scientific and Statistical Committee Meeting  
 21-22 September 2011

Rich Seagraves	MAFMC Staff
Jose Montañez (3/21 only)	MAFMC Staff
Lee Anderson	MAFMC Vice Chair
Rick Robins	MAFMC Chair
John Boreman	SSC Chair – NCSU
Tom Miller	SSC Vice-chair, UMCES/CBL
Mike Wilberg	SSC Member, UMCES/CBL
Ed Houde	SSC Member, UMCES/CBL
Dave Secor	SSC Member, UMCES/CBL
David Tomberlin	SSC Member, NMFS/ST
Wendy Gabriel	SSC Member, NMFS/NEFSC
Mark Holliday	SSC Member, NMFS/F
Rob Latour	SSC Member, VIMS
Yan Jiao	SSC Member, VA Tech
Doug Vaughan	SSC Member, NMFS (ret.)
Marty Smith	SSC Member, Duke
Doug Lipton	SSC Member, UMCP
Jason Link	SSC Member, NMFS/NEFSC
Fred Serchuk	NMFS/NEFSC liaison
Paul Nitschke (3/21 only)	NMFS/NEFSC
Dan Farnham (3/21 only)	Tilefish AP member
Laurie Nolan (3/21 only)	MAFMC member
Kristen Cervoli	Pew Foundation
Pam Lyons Gromen (3/22 only)	National Coalition for Marine Conservation
Steve Heins (3/21 only)	NYDEC
Doug Potts (3/21 only)	NMFS/NERO