

**Mid-Atlantic Fishery Management Council** 

800 North State Street, Suite 201, Dover, DE 19901-3910 Phone: 302-674-2331 | Toll Free: 877-446-2362 | FAX: 302-674-5399 | www.mafmc.org Richard B. Robins, Jr., Chairman | Lee G. Anderson, Vice Chairman Christopher M. Moore, Ph.D., Executive Director

# M E M O R A N D U M

DATE: 25 November 2015

TO:Richard B. Robins, Jr., MAFMC ChairmanFROM:John Boreman, Ph.D., Chair, MAFMC Scientific and Statistical Committee

SUBJECT: Report of the November 2015 Webinar of the MAFMC SSC

On 24 November 2015 the SSC met via webinar to address terms of reference concerning Spiny Dogfish that related to a motion passed by the Council at its last meeting:

Move that the Council request that the SSC, with guidance from the NEFSC, determine the OFL and the ABC for 2016 using a 3-yr average of mature female biomass for 2015, 2013, and 2012/2011 combined and any other options that the SSC/Center consider appropriate.

The final agenda for the webinar is attached (Attachment 1). A total of 15 SSC members were in attendance, which constituted a quorum (Attachment 2). Also in attendance were representatives from the Council, Council staff, NMFS Regional Office, state agencies, the fishing industry, and the general public.

Dr. Paul Rago, Northeast Fisheries Science Center, provided a background document (Rago 2015) for the webinar that served to guide the SSC's discussion of the terms of reference. He also walked the SSC through the document via a PowerPoint presentation during the webinar. The SSC received this document on Monday, November 23<sup>rd</sup>, which did not provide much time for review. As noted in the response to the second term of reference, the SSC wants to spend more time on an in-depth review of the approach proposed by Dr. Rago for estimating female spawning stock biomass prior to setting specifications for the 2017 fishing year.

The SSC's consensus responses to the Council's two terms of reference are as follows:

1. Estimate the 2015 spiny dogfish stock biomass using the existing approach, a three-year average of 2015, 2013, and 2012/2011 combined, and a Kalman filter approach.

The female spiny dogfish stock biomass was calculated by three approaches, as detailed in Rago (2015). The SSC accepts the following estimates:

Approach	2015 Female Stock Biomass Estimate (mt)		
	Median	10 %ile	90 %ile
Current method	138,903	76,580	201,227
(3-yr moving average)			
Council proposed			
method	189,705	92,430	286,980
(5-yr average using 4			
yrs of data)			
Kalman filter	167,983	100,682	235,283

# 2. Based on an evaluation of the performance of the approaches, provide 2016-2018 ABC/OFL recommendations that represent the best scientific information available.

The SSC accepts the Kalman filter as the best available approach to overcome the data gap resulting from the incomplete 2014 survey. The SSC reached this conclusion because the Kalman filter provided an objective foundation for analyzing time series data, did not demonstrate a substantial retrospective pattern, and provided more stable estimates of survey abundance and hence catch advice.

The SSC recommends a three-year specification of ABC. The SSC used the 2016 OFL value of **29,218 mt** from the Rago report (Table 14 in Rago 2015). By using an assumed lognormally distribution of OFL with a CV of 100% for a typical life history, the following ABCs were developed:

Method	ABC (mt)			
	2016	2017	2018	
Kalman filter	23,617	23,045	22,635	

However, the SSC notes that it expects, at a minimum, to evaluate the statistical properties of the Kalman filter, as applied to the spiny dogfish stock, at a meeting before reviewing its specifications for the 2017 fishing year. The SSC requests support from the Council to provide participation of NEFSC center staff in this evaluation.

## Reference Cited

Rago, P. 2015. Evaluation of Alternative Smoothing Options for Spiny Dogfish Abundance Estimates. Draft Working Paper for Pre-dissemination Peer Review Only. Northeast Fisheries Science Center. 28pp.

http://www.mafmc.org/s/Evaluation-of-Alternative-Smoothing-Options-for-Spiny-Dogfish-Abundance-Estimates.pdf

cc: SSC Members, Lee Anderson, Chris Moore, Rich Seagraves, Jason Didden, Paul Rago

### Attachment 1

Mid-Atlantic Fishery Management Council Scientific and Statistical Committee Webinar November 24, 2015 Final Agenda

- Introductory Comments (Boreman/Robins/Seagraves)
   Purpose of Webinar
   Motion by Council
   Terms of Reference (TORs)
- 2. Presentation by NEFSC (Rago)
- 3. Supplementary Comments by MAFMC Staff and SSC Lead (Didden/Jiao)
- 4. Public Comments (only if related to TORs)
- 5. TOR Deliberations by SSC (Jiao)
- 6. Adjourn

#### Attachment 2

#### MAFMC Scientific and Statistical Committee 24 November Webinar Attendance

#### <u>Name</u>

Members in Attendance: John Boreman (SSC Chairman) Tom Miller (SSC Vice-Chair) Dave Secor Doug Lipton David Tomberlin Mark Holliday Doug Vaughan Sarah Gaichas Sunny Jardine Bonnie McCay Olaf Jensen Ed Houde Yan Jiao Mike Frisk Wendy Gabriel Others in attendance: Rich Seagraves Jason Didden Kiley Dancy Paul Rago **Richard Robins** Lee Anderson Chris Batsavage Rob O'Reilly Jeff Kaelin Greg DiDomenico Dave Borden Eric Schneider Greg Hinks **Tobey Curtis** Jason McNamee John Whiteside Nichola Meserve David Pierce Katie Mae Laumann Matt C (?) Holly White Fiona Hogan Ashton Harp Angel Willey

#### Affiliation

NC State University University of Maryland - CBL University of Maryland - CBL NMFS NMFS Office of Science and Technology NMFS (Retired) NMFS (Retired) NMFS Northeast Fisheries Science Center University of Delaware Rutgers University Rutgers University University of Maryland – CBL VA Tech Stony Brook University NMFS Northeast Fisheries Science Center

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