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New England Fishery Management Council

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 C.M. 'Rip' Cunningham, Jr., *Chairman* | Paul J. Howard, *Executive Director*

MEMORANDUM

DATE: March 12, 2012
TO: Scientific and Statistical Committee
FROM: Paul J. Howard, Director
SUBJECT: March 28, 2012 Scientific and Statistical Committee Meeting Terms of Reference

I. Meeting Terms of Reference (TORs)

The Council asks the Scientific and Statistical Committee to complete the following terms of reference with respect to reviewing the paper by Dr. Doug S. Butterworth and Rebecca A. Rademeyer concerning Gulf of Maine cod stock assessment issues and also to provide acceptable biological catch (ABC) recommendations for a number of groundfish stocks for fishing years 2013 and FY 2014 based on assessment updates that were completed in February 2012.

- 1) Review the paper, "An Investigation of Differences Amongst SCAA [Statistical Catch at Age] and ASAP [Age Structured Assessment Program] Assessment (including Reference Point) Estimates for Gulf of Maine Cod" (January 2012) by Doug S. Butterworth and Rebecca A. Rademeyer and advise the Council on its applicability for revising management reference points and the approach used to assess Gulf of Maine cod in SAW/SARC-53 based on the following issues addressed in the paper:
 - a. Pope vs. Baranov dynamics
 - b. Estimation of the starting numbers-at-age vector
 - c. The selection of the starting year for the assessment
 - d. Allowance for additional variance in fitting to the time series of abundance indices
 - e. Fitting abundances indices expressed in terms of mass or of numbers
 - f. The form of the term for catch-at-age proportions in the log-likelihood
 - g. Domed vs. flat selectivity-at-age for the NEFSC surveys
 - h. Estimation of a stock-recruitment curve
- 2) Discuss the performance of projections for groundfish stocks based on the February 2012 groundfish assessment updates.
- 3) Review assessments and develop FY 2013 and FY 2014 ABC recommendations for redfish, Georges Bank haddock, Gulf of Maine /Georges Bank windowpane flounder, Southern New England /Mid-Atlantic windowpane flounder, ocean pout, wolffish and halibut.

II. Information

A. Documents for term of reference 1

1. "An Investigation of Differences Amongst SCAA and ASAP Assessment (including Reference Point) Estimates for Gulf of Maine Cod" by Doug S. Butterworth and Rebecca A. Rademeyer (January 2012)
2. Response to Comments by NMFS on Reference Point Estimation for Gulf of Maine Cod by Butterworth and Rademeyer, D. S. Butterworth, February 2012
3. Applications of Statistical Catch-at-Age Assessment Methodology to Gulf of Maine Cod, Doug S. Butterworth and Rebecca A. Rademeyer (October 2011)

B. Documents for terms of reference 2 and 3

4. February 2012 Groundfish Assessment Updates – *available from the following link:*
<http://www.nefsc.noaa.gov/publications/crd/crd1206/>
5. FY 2013-2014 ABC memo dated March 20, 2012
6. Powerpoint Presentation – 2012 Groundfish Assessment Updates Broad Issues
7. Powerpoint Presentation – FY 2013 – 2014 Groundfish ABCs

C. General background information - available from the following link under GOM Cod

Assessment Peer Review documents: <http://www.nero.noaa.gov/nero/hotnews/gomcod/>

- a. 53rd SAW Assessment Summary Report
- b. SARC 53 Review Panel Summary Report
- c. Bell - SARC 53 Reviewer Report
- d. Paterson - SARC 53 Reviewer Report
- e. Trzcinski - SARC 53 Reviewer Report
- f. Presentation by Mike Palmer, NOAA Fisheries, to New England Fishery Management Council Scientific and Statistical Committee

Additional background on the assessment working group's consensus decisions is in Part A; Gulf of Maine Cod Stock Assessment for 2011 at <http://nefsc.noaa.gov/publications/crd/crd1205/parta.pdf>