

## Summary of Assessment Oversight Panel Meeting

July 27, 2015

Woods Hole MA 02543

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As part of the Operational Assessment process for the 20 Groundfish stock assessments, the Assessment Oversight Panel (AOP) met in Woods Hole to review the assessment plans for each stock. The meeting was also broadcast as a Webinar.

The AOP consisted of:

Jake Kritzer, Environmental Defense Fund, Boston, MA

Jean Jacques Maguire, Sillery, Quebec

Steve Cadrin, SMAST, University of Massachusetts

Paul Rago, Northeast Fisheries Science Center, Woods Hole

In addition to lead scientists for each stock and other staff from the Population Dynamics Branch, participants included: Tom Nies (NEFMC Exec Director), Jonathan Peros (NEFMC staff), Terry Alexander (NEFMC member), Mike Simpkins (NEFSC) and Jim Weinberg(NEFSC). Participants on the webinar included Aja Szumylo (GARFO), Amanda Helwig, Chris Kellogg (NEFMC), Erica Fuller, Katie Almeida (GARFO), Sally Sherman (MEDMR), Sarah Robinson, Vito Giacalone, Jackie O'Dell, and Doug Butterworth.

The following reports and presentations were reviewed or served as background for the meeting.

- Individual presentations by stock, combined in the file= "AOP 7-27-2015 All Presentations. Pdf"
- Overview of NEFMC Multispecies Groundfish: Data and Model Configuration Summary, in the file "Model-Data-Summary.pdf"
- Summary of Stock Assessment Prospectuses for all stocks assessed by the NEFSC in the file "Stock Prospectus.pdf"
- Memo of June 30, 2015 from Regional Administrator John Bullard and Science and Research Director William Karp to NRCC on guidance for Operational Assessments. File = "nrcc-memo.pdf"

The meeting began at 10:00 am. Lead scientists for each stock gave a series of presentations on the data to be used, model specifications, evaluation of model performance, the process for updating the biological reference points, and the basis for catch projections. Presentations ranged from 10 to 25 minutes and we were able to address all 20 stocks before 4:30pm. Three background documents were provided to the Panel. The first was an updated prospectus for each stock. The second was an overview summary all the salient data and model information for each stock. The third was the NRCC Guidance memo on the Operational Assessments. The NRCC guidance memo was recognized as particularly relevant to the deliberations of the AOP.

The meeting served as a valuable forum for standardizing methods across assessments and resolving a number of potentially contentious issues. The overarching issues addressed included:

- A 90% confidence interval for fishing mortality and spawning stock biomass will be used as an objective way of applying a retrospective adjustment to terminal year stock size estimates. When the Mohn's rho adjusted F and SSB lie outside the joint confidence region of the terminal year estimates, the terminal year abundance estimates will be adjusted by the SSB rho estimate for stock status determination and catch advice projections.
- The likelihood function for the ASAP stock recruitment relationship will not include the constants as part of the function. This precedent was established at the most recent Operational Assessment of Atlantic herring and will be continued here.
- Projections for stock size and catches will be based on the  $F_{msy}$  proxy and 75%  $F_{msy}$  (or  $F_{rebuild}$  if this rate is already in effect as the default for management (e.g. witch flounder).
- Estimates of catch in 2015 will be provided by the GARFO and will be used in all projections.
- The data quality assurance filter for tows from the FSV Bigelow bottom trawl survey will be based on TOGA criteria rather than SHG, an earlier filter used for the R/V Albatross.
- Values of all assessment reference points will be updated and based on updated growth and maturation values for reference point determination. Biological information will be averaged over the same time period (e.g., 3 or 5 years) as in last assessment. However, there will be no adjustments to the basis of biological reference points (e.g., change from  $F_{40\%}$  to  $F_{30\%}$ ).
- Changes to natural mortality rate will not be allowed per the NRCC memo.
- For only a few stocks with issues identified in the table below, sensitivity runs will be presented to the Review Panel.
- The AOP provided a review of a study discard mortality rates of GOM cod that is currently in review for the ICES journal. The AOP agreed that the results of the study were sufficient for use in the September Operational Assessments for both the GOM and GB cod stocks.
- The NRCC guidance memo noted the possibility of changing other discard mortality rates if appropriate, and scientifically sound studies were available. In particular, consideration will be given to studies for wolffish and Atlantic halibut.
- The SSC will determine the most appropriate method for determining the OFL and ABC. In the absence of an approved model, this would likely utilize recent average catch over a number of

years to be determined based on the trends observed in the stock. If an ABC has already been approved by the Council under Framework 53 for the 2016 fishing year, it might be utilized in the event the updated model is an insufficient basis for catch determination.<sup>1</sup>

- No alternative dynamic models will be applied in the event that the operational model for a given stock that was approved in the most recent benchmark assessment does not pass the upcoming peer review. Development and application of an alternative model for assessment generally requires a benchmark assessment with a greater scope for review and participation than is feasible in an Operational Assessment.

One of the general conclusions from the meeting was that recommendations for benchmark assessments should be expected for assessments that reveal either revised status or poor agreement between data and models (i.e. lack of fit or strong retrospective patterns). Decisions on benchmarks and their timing will be made by the Northeast Regional Coordinating Council.

Specific recommendations for each assessment were summarized in the attached set of Powerpoint presentations. In general the AOP approved these plans but highlighted a number of clarifications as summarized below:

<b><i>Stock Name</i></b>	<b><i>Lead Scientist</i></b>	<b><i>Major Comments</i></b>
Overview of Process	Paul Rago	Terms of Reference listed in presentation will be used.
Gulf of Maine Cod	Michael Palmer	Results for both the Mramp and constant M will be presented. Discard mortality for recreationally caught fish will be reduced from 30% to 15%.
Georges Bank Cod	Loretta O'Brien	Discard mortality for recreationally caught fish will be reduced from 30% to 15%. The M=0.8 VPA and associated consequence analysis developed by the TRAC for EGB cod are outside the scope of the update, and any inconsistency between the GB cod update, and EGB cod assessment methods or TMGC decisions will need to be reconciled in the Council process.
Gulf of Maine Haddock	Michael Palmer	Base run should turn the likelihood constants OFF but should be turned on for a sensitivity run.
Georges Bank Haddock	Liz Brooks	Base case model will omit certain strong recruitments from bootstraps but a sensitivity analysis will include them. Results are relevant to estimation of 2013 year class.
Cape Cod/Gulf of Maine Yellowtail Flounder	Larry Alade	No comments
Southern New England/Mid-Atlantic	Larry Alade	Split survey run will not be included. Confirm that recent recruitment is low vis-à-vis projection assumptions.

<sup>1</sup> Subsequent to the meeting NEFMC staff noted that the 2016 ABCs for GM haddock and GOM cod were approved by the SSC only with the understanding that new ABCs would be adopted in the 2015 assessments. Hence it may not be appropriate to use the existing ABCs as "Plan B" alternatives. The AOP did not comment on this.

Yellowtail Flounder		
Georges Bank Winter Flounder	Lisa Hendrickson	Do not use AIM as Plan B. Discard mortality =100% because no satisfactory alternative is available for this stock.
Southern New England/Mid-Atlantic Winter Flounder	Tony Wood	Do not use scaled Q as Plan B for this stock
Acadian Redfish	Brian Linton	No Comments
American Plaice	Loretta O'Brien	No Comments.
Witch Flounder	Susan Wigley	This VPA assessment has a split series. If a significant retrospective pattern is observed, the rho adjustment factor will be applied.
White Hake	Kathy Sosebee	Per the SARC 56 benchmark, a truncated CDF of recruitment will be used for catch projections (1995-2012). Reference points will be based on recruitments from 1963-2012. Plan B = catch for 2016 per Framework Adjustment.
Pollock	Brian Linton	Perform sensitivity analysis with flat-topped selectivity assumption. This sensitivity run has been useful to SSC for setting ABC in the past.
Wolffish	Chuck Adams	Recent average catch will be used as basis for Plan B. Updated maturation data will be used in model formulation. This is additional information collected in same manner as used in previous assessment.
Atlantic Halibut	Dan Hennen	The current model for Atlantic halibut sensitive to initial conditions. The final determination of the model's utility will be determined by the review panel in September. AOP recommended sensitivity analysis of model to assumed discard mortality rate. Plan B = recent average catch.
Gulf of Maine/Georges Bank Windowpane	Toni Chute	Recent average catch will be used for Plan B if assessment model fails. Canadian catches have not been reported in recent years and cannot be used in this assessment. The use of projections was questioned, noting that the PDT has chosen not to use these in recent years. However, the AIM projection method is part of original assessment benchmark and should not be changed.
Southern New England/Mid-Atlantic Windowpane	Toni Chute	As above
Ocean Pout	Susan Wigley	No changes
Gulf of Maine Winter Flounder	Paul Nitschke	No changes to BRPs values expected because no changes in growth rates observed. Empirical model only uses data from Bigelow surveys.
Georges Bank Yellowtail Flounder	Chris Legault	This assessment was updated as part of the TRAC. No further revisions will be done at the Operational Assessment.

The meeting concluded at 4:30 pm. Assessment reports will be prepared by the lead scientists and uploaded to the following website <http://www.nefsc.noaa.gov/groundfish/operational-assessments-2015/>. Draft assessment reports will be made available approximately two weeks before the Peer Review Panel meets September 14-18. In addition to the short summary reports, all of the model inputs and outputs, and supporting tables, figures and graphs will be made available via a web-based tool.