



New England Fishery Management Council

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John Pappalardo, *Chairman* | Paul J. Howard, *Executive Director*

**MEMORANDUM**

**DATE:** July 13, 2011  
**TO:** Groundfish Oversight Committee  
Science and Statistical Committee  
**FROM:** Augmented Groundfish Plan Development Team  
**SUBJECT:** **FY 2012 - 2014 ABCs: APDT Conference Call, July 6 2011**

1. The APDT held a conference call to continue development of a method for setting FY 2012 – 2014 ABCs. Participants in the call included Tom Nies and Anne Hawkins (NEFMC), Steve Cadrin and Sally Roman (SMAST), Steve Correia (MA DMF), Kohl Kanwit (Maine DMR), Tom Warren, Sarah Heil, and Melissa Vasquez (NMFS NERO), Chris Legault, Paul Nitschke, Liz Brooks, Chad Demarest, and Mike Palmer (NMFS NEFSC).

2. The APDT reviewed SSC advice from the June, 2011 SS meeting, received an update on data availability, discussed the analysis of projections, and discussed alternatives to the projection approach.

**Data**

3. All survey indices have been updated through spring 2011. Catch data is still being compiled. Recreational data for CY 2011 will not be available until early August; this may cause delays in addressing GOM cod, GOM haddock, pollock, and winter flounder stocks.

**Projection Analyses**

4. The review of how well projections perform is continuing. Preliminary results are expected to be available the week of July 11, 2011. These results will not explore the causes of differences between the projections and actual stock sizes. The APDT agreed that subsequent to the review of these results, some time should be spent exploring the differences. This might lead to identifying ways to modify the projection assumptions to improve their performance.

5. The APDT agreed that these projections will be based on the fishing mortality targets that have been previously identified. Since there aren't updated assessments, no attempt will be made to recalculate rebuilding mortality rates.

### **Alternative to Projection Approach**

6. The APDT discussed several approaches for setting ABCs if the projection approach is deemed unreliable. Some of these approaches were identified by the SSC (e.g. holding ABCs constant until an assessment update is available, setting ABC at a percentage of recent catches, etc.). Most for the APDT discussion focused on an approach suggested at the SSC meeting that would adjust ABCs based on the relative change in survey indices. The APDT discussed specifics of this approach and attempted to resolve a number of details. Attachment (1) documents the proposed method and reflects the decisions discussed below.

- Survey calibration: Some groundfish stocks use a length-based calibration factor to convert Bigelow survey indices (numbers at age) to Albatross equivalents. A similar calibration to convert weight has not been developed. The calibration for weights that will be used were developed during the review of the calibration experiment and are not adjusted for length. This introduces uncertainty into the conversion.
- The APDT discussed how to calculate the change in the survey index. One approach that was considered would calculate the relative change between successive years and then average the change over the period since the last assessment. Another approach would average the change between the first and last year of the period. The APDT decided to calculate a lagged three-year average for each survey, determine the relative change between the first and last year of the period, and average the changes over the multiple surveys that are available. Since 2007 is the terminal year of the GARM III assessments, that will be the starting year. The 2007 value for a survey would be the three-year average (2005, 2006, 2007); this would be compared to the 2010 value (2008, 2009, 2010 average).
- In concept the APDT agreed that all surveys used in the assessment model should be considered, but survey q's will be examined first to make sure the surveys represent similar ages of the population. If, for example, a state survey is sampling only young fish, it may not be appropriate to include it as an indicator of the changes in stock size.
- Survey indices will be plotted with CIs to indicate whether the relative change is significant.

- With respect to the three-year period for the ABCs, the APDT considered whether ABCs should be set assuming the recently observed stock size change continues. The APDT recommends ABCs remain constant for the entire period.

Comparison of Alternatives to Projection Approach

7. Table 1 below summarizes the advantages and disadvantages of several alternatives to the use of projections for setting ABCs.

**Table 1 – Advantages and disadvantages of alternatives to using projections to set ABCs**

<b>Method</b>	<b>Advantages</b>	<b>Disadvantages</b>
Hold ABC constant at FY 2012 value	Simple If stocks are rebuilding, effectively reduces F over time	Sacrifices yield from growing stocks; may lead to overfishing of stocks that are declining in size  Ignores indicators of current stock conditions
Set ABCs at percentage of recent catch	Stability in catches	Ignores external factors that may have limited catches (new management regime, market forces)  Prevents increased harvest of available yields as fishery adapts to sectors  Ignores indicators of current stock conditions
Adjust ABCs proportional to changes in survey indices	Considers recent indicators of stock conditions (surveys)	Given short time period, survey variability may give misleading indication of resource trends