

**OVERVIEW - SAFMC Snapper-Grouper Regulatory Amendment 13:
Adjustment of Annual Catch Limits (ACLs) incorporating Marine Recreational
Information Program (MRIP) Re-estimated Landings**

Background

The South Atlantic Fishery Management Council (Council) implemented recreational ACLs for its managed fisheries according to mandates in the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) during 2010 and 2011. Many of these ACLs were computed using recreational catch estimates generated by the Marine Recreational Fisheries Statistics Survey (MRFSS). Following an independent review by the National Research Council and a mandate from Congress, NOAA Fisheries has overhauled MRFSS. The Marine Recreational Information Program (MRIP) was developed to provide more accurate recreational catch estimates by accounting for potential biases such as possible differences in catch rates at high-activity and low-activity fishing sites, or the amount of fishing occurring at different parts of the day. MRIP methods have been used to recalculate previous MRFSS estimates dating back to 2004, and will be the basis for all new estimates moving forward. MRIP is also evaluating the possibility of recalculating MRFSS estimates from pre-2004.

NOAA Fisheries is mandated to monitor catches relative to ACLs, and, if necessary, to implement in-season or post-season accountability measures (AMs). Many ACLs, as currently specified, may be inappropriately scaled to the MRIP information that will be used to monitor them, as they were partially based upon MRFSS data. Regulatory Amendment 13 to the Fishery Management Plan for the Snapper-Grouper Fishery of the South Atlantic Region (Regulatory Amendment 13) will address that disjunction by recalculating the formulaic acceptable biological catch (ABCs), ACLs, and annual catch targets (ACTs) based upon MRIP data for 2004-2011 and recalibrated MRFSS data for 1986-2003. MRFSS data will be recalibrated to MRIP data using scalars for each stock's shore, private and charter landings. The Council needs to adjust ACLs using these revised estimates to appropriately align historical data used to set ACLs with the data currently being collected to monitor them.

During their June 2012, meeting, the Council discussed the need to move forward with ACL adjustments for snapper grouper species as soon as possible. Guidance to staff was to work with NOAA Fisheries to determine the appropriate vehicle to accomplish this adjustment and, if possible, present a document to the Council at the September 2012 meeting for approval. NOAA Fisheries has determined that an Environmental Assessment (EA) is necessary to explain this preliminary round of ABC, ACL, and ACT revisions. The same formulae used to derive ABC and sector ACLs in the Comprehensive ACL Amendment will be applied in this revision; the only differences will be due to the revised recreational catch estimates.

Methods

Recalibration

The Southeast Regional MRIP Recalibration Working Group ('SRWG'), comprised of personnel of the NOAA Fisheries Southeast Fisheries Science Center (SEFSC), NOAA Fisheries Southeast Regional Office, and Council staff, have discussed MRFSS→MRIP re-calibration methods. Below is a summary of the discussions:

- MRFSS landings (A + B1), discards (B2), and associated variances (in number of fish) for all managed stocks should be calibrated to MRIP re-estimates for 1986-2003 based on 2004-2011 MRIP:MRFSS ratios. When 1998-2003 recalibrations become available (anticipated late 2013), accuracy of previous calibrations will be examined, and identical methods will be used to recalibrate the 1986-1997 data unless compelling reasons emerge to alter the methodology.
- Calibrations will be based on methods described in the MRIP Calibration Ad-hoc Working Group Final Report. The Report recommends trimming high and low values if 1-2 years have noticeable impact upon the resulting calibration factor. The utility of this outlier trimming will be explored, but the preference is not to remove outliers.
- Calibrations will be performed based on annual data at the *Stock-Subregion-Mode* level.
- When possible, decisions regarding stock boundaries were based upon SEDAR decisions. However when SEDAR decisions were ambiguous (i.e., either assessed as a unit stock across subregions or SEDAR decisions between subregions are inconsistent) or unavailable (i.e., never assessed or decision not described in SEDAR report), the SRWG is developing consensus recommendations for post-stratification decisions for all managed stocks in the South Atlantic and Gulf of Mexico. Calibrations will be performed on sub-regional estimates and subsequently the estimates will be post-stratified to combine catches for the entire stock.
- The SRWG felt that departing from the MRIP Calibration Working Group recommendations and partitioning calibration factors by *Mode* was important in the South Atlantic due to substantial differences in MRIP:MRFSS ratios by *Mode*, and the interest of both the South Atlantic and Gulf of Mexico Fishery Management Councils in exploring allocation of landings to specific recreational sectors.

ABC, ACL, ACT Updates

If the MRIP recalibrated landings data are available for review by the Council's Scientific and Statistical Committee (SSC) during their October 2012 meeting, ABCs selected by the SSC at that meeting will be used as the start point for the tiered calculations of sector ACLs and recreational ACTs. If the MRIP recalibrated data are not available for the October SSC meeting, revised ABCs will be selected using the same methodology the SSC used for the Comprehensive ACL Amendment. The Comprehensive ACL Amendment implemented ABCs based on median or third-highest landings for unassessed stocks using landings data from 1999-2008.

The Comprehensive ACL Amendment assigned sector ACLs by distributing the ABC between sectors using the following formula:

$$ACL_{sector} = ABC * \frac{(50\% * \overline{Landings}_{sector}^{(1986-2008)} + 50\% * \overline{Landings}_{sector}^{(2006-2008)})}{(50\% * \overline{Landings}_{total}^{(1986-2008)} + 50\% * \overline{Landings}_{total}^{(2006-2008)})}$$

This formula, which distributes the ABC based on a weighted function of mean long-term landings (1986-2008) and mean recent landings (2006-2008), will be used in Regulatory Amendment 13 to recompute sector ACLs to reflect the more accurate re-estimated historical recreational landings data.

Recreational ACTs in the Comprehensive ACL Amendment were computed using the following formula:

$$ACT_{recreational} = ACL_{recreational} * \max((1 - PSE_{recreational}), 0.5),$$

where PSE denotes 'Proportional Standard Error'; an expression of the uncertainty in the recreational landings estimates. In the Comprehensive ACL Amendment, PSEs were calculated as an average of MRFSS PSE from 2005-2009. For Regulatory Amendment 13, PSEs will be computed as an average of MRIP re-estimated PSE from 2005-2009. This revision to recreational ACTs will more accurately express the variance in re-estimated historical recreational landings data.