SSC Roadmap

April 2010

Briefing Book Draft: March 31, 2010

Contents:

Synopsis:

The primary focus of this meeting is to provide fishing level recommendations (primarily ABC) for inclusion in the Council's Comprehensive ACL Amendment and several other FMPs which will include MSRA actions. The Committee will also consider recent stock assessments of black and red grouper.

Documents:

Attachment 1. December 2009 SSC Minutes
Attachment 2. SAFMC ABC Control Rule
Attachment 3. Comprehensive ACL Options Paper
Attachment 4. Shrimp Summary
Attachment 5. NS1 (ACL) Final Rule
Attachment 6. Golden Crab Summary
Attachment 7. Coral Summary
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Attachment 9. South Atlantic Red Grouper
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Attachment 29. Spanish Mackerel Assessment
Attachment 30. Dolphin-Wahoo Decision Document
Attachment 30. Dolphin Assessment 2000

1. Introduction

1.1. Documents

Agenda.
Overview
Attachment 1. December 2009 SSC Minutes

1.2. Actions

1) Introductions
2) Adopt agenda
3) Approve minutes
   - June 2009 SSC meeting (Attachment 1)

2. Nominate SSC Candidates

2.1. Documents

None

2.2. Overview

The Council will consider SSC applicants in June 2010. The SSC is invited to submit candidates for consideration. Staff will provide application information to any individuals nominated by the SSC, and those making suggestions are asked to inform the nominees that they were nominated. The SSC should consider expertise required on the committee when making nominations.

2.3. Actions

Nominate SSC candidates

3. Update on 2010 National SSC Workshop

3.1. Documents

None

3.2. Overview

The SAFMC is hosting the 2010 National SSC Workshop. It will be held at the Charleston Marriott, October 18 – 22, 2010. The SAFMC SSC chair is expected to chair the National Workshop.

Expected topics include: SSC progress report on ABC control rule implementation; update on NS2 guidelines; update on the data poor subcommittee; assessment peer review processes; developing fishing level recommendations, data poor approaches, and defaults

when no recommendations are provided by the SSC. Committee members are asked for feedback on topics of interest and critical questions.

The standard delegation is 3 SSC members (Chair, vice-Chair, and 1 other) and 1 staff. Given the location, there is a possibility that the Council will provide travel expenses for other individuals who may be interested in attending.

3.3. Actions

1. Recommend 2010 National SSC representation.
2. Recommend topics or questions for discussion at the National Workshop.

4. Elections

4.1. Documents

None

4.2. Overview

The Committee elects a chair and vice-chair bi-annually, typically at its June meeting. Chair Belcher and vice-Chair Barbieri were elected in June 2008. Elections will be held at this meeting since a meeting is not expected in the summer of 2010.

4.3. Actions

Elect Chair and vice-Chair.

5. Fishing Level Recommendations I

5.1. Documents:

Attachment 2. SAFMC ABC Control Rule
Attachment 3. Comprehensive ACL Options Paper
Attachment 4. Shrimp Summary
Attachment 5. NS1 (ACL) Final Rule
Attachment 6. Golden Crab Summary
Attachment 7. Coral Summary

5.2. Overview

The SSC-recommended control rule (Attachment 2) was developed using finfish as example stocks. However, the Council also manages a number of other types of organisms, including shellfish, corals, and sargassum. The Committee is asked to recommend ABCs for these managed stocks. The Committee may choose to adapt the current SSC ABC control rule to these FMPs or to develop alternative approaches. The Committee should consider ABC control rule alternatives under consideration by the Council (Attachment 3) when making recommendations to provide a range of ABC values. ABC values will be included in the Council's Comprehensive ACL Amendment, which will amend numerous Council FMPs.

ABC Control Rule Options and Background

This is a critical subject that will be considered throughout the SSC deliberations of ABCs during much of this meeting. Therefore, some background and summarization of recent events is provided here.

According to the NS1 guidelines (Attachment 5), the Council shall specify a process for developing ABC. This includes establishing an ABC control based on input from the SSC. So far, the SAFMC SSC has developed an ABC control rule and presented the SSC recommended control rule to the Council. In March 2010 the Council considered the SSC control rule and directed that staff develop a list of alternative control rules for consideration in the Comprehensive ACL Amendment (Attachment 3). This process is described in the following NS1 excerpt:

(3) *Specification of ABC.* ABC may not exceed OFL (see paragraph (e)(2)(i)(D) of this section). Councils should develop a process for receiving scientific information and advice used to establish ABC. This process should: Identify the body that will apply the ABC control rule (*i.e.* , calculates the ABC), and identify the review process that will evaluate the resulting ABC. The SSC must recommend the ABC to the Council. An SSC may recommend an ABC that differs from the result of the ABC control rule calculation, based on factors such as data uncertainty, recruitment variability, declining trends in population variables, and other factors, but must explain why. For Secretarial FMPs or FMP amendments, agency scientists or a peer review process would provide the scientific advice to establish ABC. For internationally-assessed stocks, an ABC as defined in these guidelines is not required if they meet the international exception (*see* paragraph (h)(2)(ii)). While the ABC is allowed to equal OFL, NMFS expects that in most cases ABC will be reduced from OFL to reduce the probability that overfishing might occur in a year. Also, *see* paragraph (f)(5) of this section for cases where a Council recommends that ACL is equal to ABC, and ABC is equal to OFL.

(i) *Expression of ABC.* ABC should be expressed in terms of catch, but may be expressed in terms of landings as long as estimates of bycatch and any other fishing mortality not accounted for in the landings are incorporated into the determination of ABC.

(ii) *ABC for overfished stocks.* For overfished stocks and stock complexes, a rebuilding ABC must be set to reflect the annual catch that is consistent with the schedule of fishing mortality rates in the rebuilding plan.

(4) *ABC control rule.* For stocks and stock complexes required to have an ABC, each Council must establish an ABC control rule based on scientific advice from its SSC. The determination of ABC should be based, when possible, on the probability that an actual catch equal to the stock's ABC would result in overfishing. This probability that overfishing will occur cannot exceed 50 percent and should be a lower value. The ABC control rule should consider reducing fishing mortality as stock size declines and may establish a stock abundance level below which fishing would not be allowed. The process of establishing an ABC control rule could also involve science advisors or the peer review process established under Magnuson-Stevens Act section 302(g)(1)(E). The ABC control rule must articulate how ABC will be set compared to the OFL based on the scientific knowledge about the stock or stock complex and the scientific

uncertainty in the estimate of OFL and any other scientific uncertainty. The ABC control rule should consider uncertainty in factors such as stock assessment results, time lags in updating assessments, the degree of retrospective revision of assessment results, and projections. The control rule may be used in a tiered approach to address different levels of scientific uncertainty.

Timeline for the Comprehensive ACL Amendment:

A. Scoping – January/February 2009.
B. Review scoping comments and options – March & June 2009.
   Includes SSC Review: June & December 2009, April 2010.
C. Approve for public hearings - December 2010.
D. Public hearings – January/February 2011.
E. Review all comments and approve all actions – March 2011.
F. Review complete document and approve for formal review by Secretary of Commerce - June 2011.
G. Send to Secretary of Commerce for formal review – June 2011.

SHRIMP

Advice varies as to whether shrimp are required to have ABCs. At this time, shrimp ABC and an ABC control rule is included as an action in the Comprehensive ACL Options Paper. Stock status criteria for shrimp stocks are summarized in Attachment 4.

The MSRA includes an exception to specifying ACL for species that live 1 year or less, but according to the following text from the Federal Register notice of the NS 1 Guidelines, ABC and other fishing level recommendations are required:

> "Even though ACLs are not required for these stocks, Councils are still required to estimate other biological reference points such as SDC, MSY, OY, ABC and an ABC control rule. However, the MSA limits the exception and clearly states that if overfishing is occurring on the stock, the exception cannot be used, therefore ACLs would be required. MSA only provided for a 1- year life cycle exception, thus NMFS cannot expand the exception to two years."

And,

> "The MSRA provides two statutory exceptions to the ACL and AM requirements under MSA section 303(a)(15) (see MSRA section 104(b) (adding two exceptions under a MSA section 303 note); see also § 600.310(h)(2) of this proposed action). First, MSA section 303(a)(15) "shall not apply to a fishery for species that have a life cycle of approximately 1 year unless the Secretary has determined the fishery is subject to overfishing of that species" (see MSRA section 104(b)(2)).
>
> NMFS interprets "fishery for species" to be a stock. In addition, NMFS interprets "a life cycle of approximately 1 year" to mean that the average length of time it takes for an individual to produce a reproductively active offspring is approximately 1 year, and that the individual has only one breeding season in its

lifetime. While stocks that qualify for the 1-year life cycle exception would not need to have ACLs and AMs, such stocks should still have SDC, MSY, OY, ABC, and an ABC control rule."

The NS1 guidelines also specify that the Council will need to "propose alternative approaches to satisfying the NS1 requirements" if it choose to deviate from the standard approaches for specifying reference points and management criteria, based on circumstances such as unusual life history characteristics.

GOLDEN CRAB

Golden crab ABC is currently included in Golden Crab Amendment 5 (Attachment 6), but may shift to the Comprehensive ACL Amendment. The Golden Crab amendment includes landings and effort information for 1995 to 2007. The following ABC alternatives are also included:

2.3 Action 3. Establish an Allowable Biological Catch (ABC) for the Golden Crab Fishery of the South Atlantic region.

Alternative 1. No action (THERE IS NO ABC SPECIFIED FOR GOLDEN CRAB)

Alternative 2. ABC = 2 MILLION POUNDS

Alternative 3. ABC = 1.5 MILLION POUNDS

Alternative 4. RECOMMENDATION FROM THE SSC.

Alternative 5. ABC = 4.0-4.5 MILLION POUNDS

CORAL

Landings and fishery information for gorgonians is summarized in Attachment 7. Most, if not all, landings are taken from state waters and records are held by the State of Florida. Coral ABC will be addressed in CEBA II.

SARGASSUM

The SAFMC Sargassum FMP was approved in November 2002. Actions include:

ACTION 1. Establish the Management Unit for pelagic *Sargassum* throughout the South

Atlantic Exclusive Economic Zone (EEZ) and State Waters. The management unit is the population of pelagic *Sargassum* occurring within the South Atlantic Council's area of jurisdiction along the U.S. Atlantic coast from the east coast of Florida, including the Atlantic side of the Florida Keys, to the North Carolina/Virginia Border and within state waters of North Carolina, South Carolina, Georgia, and the Florida East Coast.

ACTION 2. Maximum Sustainable Yield (MSY) for South Atlantic pelagic *Sargassum* is estimated to be 100,000 metric tons (220,460,000 pounds) wet weight per year.

ACTION 3. Specify Optimum Yield (OY) for pelagic *Sargassum* as 5,000 pounds wet weight per year.

ACTION 4. Specify Overfishing Level to meet Magnuson-Stevens Act Mandate for pelagic *Sargassum*. Overfishing is defined as the rate of harvest which compromises the stock's ability to produce MSY. The Maximum Fishing Mortality Threshold (MFMT) is 9.0 to 18.0 units per year. The Minimum Stock Size Threshold (MSST) is 25,000 metric tons (55,115,000 pounds).

5.3. ACTIONS

Recommend ABC control rules and ABC values for these stocks.

6. Assessment Reports

6.1. Documents:

Attachment 8.Southeastern United States Black Grouper
Attachment 9. South Atlantic Red Grouper

6.2. Overview

Assessments for black grouper (Attachment 8) and South Atlantic red grouper (Attachment 9) were developed through SEDAR 19. The Committee is asked to review these assessments to develop fishing level recommendations and ensure uncertainty in the findings is adequately represented and described.

6.3. Actions

Provide fishing level recommendations for black and red grouper

7. ABC Recommendations II

7.1. Documents:

Attachment 10. Control Rule Application (Spreadsheet)
Attachment 11. SSC Data and Analytical Request
Attachment 12. SEFSC Response I to SSC OFL and Data Request
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Attachment 25. Expert Working Group Report
Attachment 26. ParFish Assessment Method
Attachment 27. MARMAP Status of Stocks

7.2. Overview

The SSC is asked to provide ABC recommendations for remaining stocks in the Snapper-Grouper FMP. Many of these stocks have not been assessed so the Committee will first need to develop a yield-based OFL and then determine how to determine ABC from OFL. The Council is considering several alternatives

ABC control rules, some of which will not be applicable for unassessed stocks for which only landings are available.

Included in the alternatives is the control rule recommended by the SSC (Attachment 2). The Committee briefly discussed application of the control rule to data poor stocks in December but did not develop any firm recommendations. Staff built on these discussions (Attachment 10) to develop example buffer values for managed stocks. One critical decision that remains is to determine how the control rule-derived buffer value will be used to adjust OFL to provide ABC.

OFL

The Council requested, on behalf of the SSC, that the SEFSC provide OFL estimates for all stocks managed by the South Atlantic Council (Attachment 11). The SEFSC was not able to fulfill this request in its entirety, and advised that the SSC consider average landings for determining OFL (Attachment 12, Attachment 13).

Staff compiled a landings time series from which alternative averages can be considered for OFL and landings trends can be evaluated, and to which the DCAC approach is applied (Attachment 16).

For the landings evaluation, data available to SAFMC staff from MRIP, the ALS, and the headboat program are included for 1986 to 2007, based on data compiled during 2009. It is anticipated that this time series will be useful for evaluating trends and comparing general, ad-hoc approaches to assessment estimates. However, it is acknowledged that more recent data are available, and may be considered when the SSC makes its final recommendations to ensure consistency with subsequent Council actions on other criteria. Efforts were made to obtain a more up to date time series. However, recent data files provided by SEFSC, including additional years at both ends of the time series, were not included in these analyses due to delayed submission and ongoing difficulties in determining confidentiality, variable definitions, and the appropriate approaches for separating landings into Gulf and Atlantic components. Moreover, it is now known that the SERO developed a database approved by SEFSC to use in evaluating ACLs, ACTs, and AMs. Staff recently requested average landings from this dataset for consideration in making ABC recommendations, which, if obtained, will help ensure consistency in data used throughout the process. Results will be provided at the meeting if possible.

ABC Approaches

Several alternatives for deriving ABC from OFL are explored. These include the “DCAC” approach by MacCall (Attachment 19), a range of flat rate adjustments from ABC tied to a landings level or yield from a pre-determined reference point as described in the current Council Options Paper (Attachment 3), application of the ABC control rule (Attachment 2) and its buffer values based on various criteria as proposed in Attachment 10, and the “Cooper approach” as described in Attachment 17.

The DCAC approach application to South Atlantic stocks is described fully in Attachment 15, accompanied by a spreadsheet (Attachment 16) which can be

used to explore alternative assumptions. The DCAC method of MacCall (Attachment 19) requires average landings, estimates of M, and two scalar parameters, one that reflects the reduction in biomass over time and another which reflects the relation between M and Fmsy. The general approach applied for this exercise was to fix the Fmsy scalar at 1, which in practice assumes Fmsy=M for those stocks for which an M estimate is available, and also assuming M=0.2, thus Fmsy=0.2, for the remaining stocks. Next, a value for the biomass trend scalar was found such that provided a 25% reduction in average catch, to be consistent with the rule of thumb of ABC=75% MSY. Any of these assumptions can be modified or based on more informed information if available. For more information, see applications of this approach described in draft documents provided by the North Pacific Council SSC (Attachment 20, Attachment 21, Attachment 22). In addition, MARMAP status of stocks reports contain fishery-independent CPUE trends which may provide information of stock biomass trends for refining the DCAC parameters (Attachment 27).

Application of the ABC control rule alternatives is fairly straight forward, once OFL is agreed. Some, in particular those tied to reference points or particular P* values, cannot be evaluated for unassessed stocks due to a lack of reference points and estimates of current stock abundance. Staff explored initial application of the SSCs ABC control rule to develop buffers between OFL and ABC for unassessed stocks (Attachment 10). The Committee will need to agree to the tier values, an OFL, and a means for applying the control rule buffer to the OFL. Finally, the Cooper approach provides a further alternative (Attachment 17). This approach also builds from the ABC control rule, but treats the derived buffer as a P* adjustment, as done for assessed stocks, and converts the point estimate of OFL to a distribution based on an assumed CV. Staff also pursued examples of this approach for consideration (Attachment 18).

The Committee should review the range of alternatives for developing ABCs in data poor situations. To facilitate this process and comparison of the various approaches that are pursued through numerous documents and spreadsheets, a summary of the OLF and ABC alternatives is provided in a single spreadsheet (Attachment 18). Please note that these remain ‘works in progress’ to some extent, and we may provide updated versions prior to the meeting. In addition, reference documentation of some long-standing approaches to addressing OFL and ABC for unassessed stocks include a data poor workshop report from 2001 (Attachment 23) and the Restrepo et al. technical guidance prepared for the 1998 SFA (Attachment 24).

The Committee is asked to recommend ABC for each stock and to review the ABC control rule alternatives under consideration by the Council.

7.3. ACTIONS

Review and comment on approaches for determining OFL for unassessed stocks in the snapper-grouper complex.
Recommend OFL for each stock.

Review and comment on alternatives for determining ABC for unassessed stocks in the snapper-grouper complex.
Recommend a range of ABC for each stock.

8. ABC Recommendations III

8.1. Documents:

Attachment 28. Updated Mackerel Projections
Attachment 29. Spanish Mackerel Assessment
Attachment 30. Dolphin-Wahoo Decision Document
Attachment 31. Dolphin Assessment 2000

8.2. Overview

Coastal-Migratory Pelagic FMP

King and Spanish mackerel were both assessed through SEDAR recently and both assessments were reviewed by the SSC in December 2008. Additional projections in support of OFL and ABC determinations are available for king mackerel as requested by the SSC (Attachment 28). The Spanish mackerel assessment (Attachment 29) was partially accepted, with the SSC endorsing the review panel conclusions regarding stock status and determining that current exploitation and biomass estimates are unreliable. Landings data are available for other species in the CMP complex.

Dolphin-Wahoo FMP

Landings and status criteria alternatives for the Dolphin-Wahoo FMP are summarized in Attachment 30. The 2000 exploratory assessment of Dolphin is also provided (Attachment 31)

8.3. Actions

Recommend OFL and ABC for stocks in the Coastal-Migratory and Dolphin-Wahoo Fishery Management Plans

9. Review Recommendations and Draft Committee Report