South Atlantic Fishery Management Council
Scientific and Statistical Committee Meeting Report
November 8 – 10, 2010
Holiday Inn
North Charleston, SC 29418

Synopsis:

The purpose of this meeting is to review the SEDAR 24 assessment of South Atlantic red snapper and provide fishing level recommendations for red snapper, review rebuilding projections and alternatives for red grouper, and to review several amendments that are under development.

1. Introduction

Actions

Approve Agenda

Agenda was revised to accommodate Council staff and NOAA presenter schedules. Agenda Item 4 (SEDAR 24 Assessment Review), Agenda Item 9 (Snapper-Grouper Regulatory Amendment10), Agenda Item 5 (Comprehensive ACL Amendment) and Agenda Item 6 (Snapper Grouper Amendment 18A) were shifted to the end of the agenda. Discussion on items 4, 9 and 5 were scheduled to start Tuesday morning, beginning with a presentation from Kyle Shertzer. Under other business the SSC was asked to recommend two volunteers for a SEDAR sponsored workshop to discuss the analysis and current information on MPAs. This workshop was requested by the Caribbean Council, as there are currently many forms of MPAs applied throughout their management area.

Approve August 2010 Meeting Minutes

August 2010 meeting minutes were approved.

2. National SSC Workshop Report

Overview

The SAFMC hosted the third annual National meeting of fishery management Council SSCs October 19 - 21 in Charleston, SC. The group discussed progress on ABC control rules and reviewed regional assessment and peer review programs.

Actions

Dr. Belcher discussed the topics presented at the meeting. The South Atlantic SSC was strongly represented with Drs. Barbieri, Belcher, Berkson, Boreman, Cadrin, and Crosson sitting on the panel. Dr. Reichert and Ms. Lange were in

the participating audience as well. Overall, the meeting was a success, however, participants indicated that less presentations and more topical focus~~es~~ could help future discussions. The next meeting, which the Mid-Atlantic Council has agreed to host if funds are available, will focus on how socio-economic information is brought into the process. Dr. Rick Methot also informed participants at the national meeting that NMFS has formed an ABC Control Rule Review team that will be reviewing the regional control rules.

3. SEDAR Items

Overview

The SEDAR Steering Committee met October 4-6 in Charleston to discuss procedural issues and the assessment schedule. Considerable changes were proposed, which will be considered for approval at a February 2011 conference call. The SSC was asked to comment on the proposed changes.

The Steering Committee approved elevating the South Atlantic black sea bass update to a benchmark. Golden tilefish, last assessed as a benchmark in SEDAR 4, will be assessed in the same workshops. The SSC was asked to review and comment on the schedule and Terms of Reference, and recommend SSC participants, for black sea bass and golden tilefish.

Actions

Comment on the proposed process changes

The SSC discussed the need for a well-defined process for incorporating assessments conducted outside of the SEDAR process. SSC members indicated the potential need for an additional uncertainty buffer as these assessments could be less safe. Ideally, these models should go through a SEDAR type review, however, it was recognized that an SSC review of the assessment could work as to provide a "placeholder" or proxy for OFL/ABC values until a benchmark can be conducted. The suggestion of letting an assessment that had been published in a journal stand as "reviewed" caused some concern, as SSC members did not feel the review process was adequate. This inadequacy is more a function of the type of review (i.e., reviewed for scientific contribution, not management) not that the journal review process itself is inadequate.

Additional discussion fell to the perceived slowness of SEDAR from folks not involved in the process. Members who have been involved in SEDARs many times feel rushed through the process. Members did not feel the process could be shortened without compromising the quality of the assessment.

Additional discussion relative to SEDAR included comments on the difference between the stipends paid to the CIE reviewers and the SSC reviewers. The

workload is essentially the same, but the daily rate is significantly different. John Carmichael indicated this could cause a budgeting issue, but the comment would be passed to the Steering Committee for consideration.

Comment on the sea bass and tilefish schedules and TORs

Black sea bass and golden tilefish are to be assessed as a standard assessment, which will allow for new data sources and methodology changes. The SSC did not have issues with the TORs for either assessment. The SSC did not have issues with the schedule developed for these assessments.

Recommend participants for the sea bass and tilefish assessments

DW participants: 2-3 SSC, recommend others
Dr. Marcel Reichert and Chip Collier will attended the DW.

AW participants; 2 SSC, recommend others
Drs. Andy Cooper and John Boreman will attend the AW.

Anne Lange and Jim Berkson have volunteered to be at the RW.

Dr. Gary Grossman from the University of Georgia was recommended as a potential participant.

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4. SEDAR 24 Assessment Recommendations

Overview

SEDAR 24 assessed South Atlantic red snapper, culminating in a review workshop October 12 – 14 in Savannah. The SSC was asked to review this assessment and to provide fishing level recommendations.

SEDAR 15 determined that red snapper were overfished and experiencing overfishing. Actions were developed in Amendment 17A to address red snapper, including a rebuilding plan and a closure to all snapper-grouper fishing between Sebastian, FL and the GA/FL border. Amendment 17A is currently under Secretarial review. SEDAR 24 developed a new benchmark for red snapper to evaluate recruitment trends since SEDAR 15, to incorporate increased age samples, and re-evaluate historic catch and discard mortality estimates. The Council is considering a regulatory amendment (RA 10) to modify the actions proposed in Amendment 17A in accordance with current stock conditions as indicated by SEDAR 24.

Actions

Review the assessment and recommend whether it is adequate for management

The SSC complemented all of the contributions from the data, assessment and review teams. Given the many data limitations, the teams did a commendable job of synthesizing all information in a comprehensive assessment, which provides a sound basis for management. Despite the efforts of the SEDAR teams, the stock assessment will continue to have major uncertainties unless investments are made to develop a fishery-independent survey, at-sea observing, and discard sampling. Conclusions about stock status (overfishing and overfished) are robust to all alternative data and model decisions. General management advice (substantial reduction in F) is also robust. Specific catch advice is more sensitive to alternative decisions. The assessment shows that previous management actions were effective for delaying fishery selectivity, but not effective for limiting fully-recruited fishing mortality. The 12" size limit decreased age-1 selectivity by for-hire fleet, and the 20" size limit decreased age-2 selectivity by commercial line and recreational fleets. Fully-recruited F (or apical F) did not respond to management actions in the assessment series (1955 to 2009). The SSC did recommend using the assessment for management.

Provide fishing level recommendations for red snapper

The SSC discussed several alternative approaches to deriving fishing level recommendations, including: 1) long-term stochastic projections that allow rebuilding, 2) reductions in incidental bycatch, and 3) short-term, deterministic projections from a range of viable assessment configurations.

1) The SSC concluded that the retrospective pattern associated with the re-weighted assessment and model sensitivities precluded using long term stochastic projections as a basis for catch advice (e.g., a scenario that achieved rebuilding by 2047 with at least 50% probability allowed for a 2011 catch of approximately 200klb).

2) A reduction in incidental bycatch could be based on the estimate of discards that result from recent management measures (e.g., the SEDAR approximation of 2010 catch was approximately 300klb).

3) The SSC decided to base its fishing level recommendations on deterministic projections from three viable assessment configurations.

The most influential statistical weight was for the headboat landings index. The iterative reweighting procedure caused a retrospective bias pattern in the headboat index and was not known at the review workshop. Since the headboat index was considered the most reliable index by the data and assessment workshops and the iterative reweighing caused a retrospective bias, the lead analyst and a subgroup of the SSC inspected model diagnostics from three viable alternative weightings for the headboat index ('hb=0.2', 'hb=0.25', and 'hb=0.3'; see table below). All three alternatives had similar model diagnostics, with increasing goodness-of-fit to the headboat index.

Weights	Fmsy	SSBmsy	MSY	F/Fmsy	SSB/MSST	steep	R0(1000)
base hb=0.11	0.178	156.01	1842	4.12	0.09	0.85	535
all 1	0.203	214.17	2835	3.7	0.06	0.85	748
hb=0.2	0.188	162.39	1891	3.27	0.11	0.85	547
hb=0.25	0.196	165.37	1908	2.98	0.12	0.85	552
hb=0.3	0.206	167.73	1926	2.76	0.14	0.85	554

The SSC decided to base catch advice on deterministic projections from each of these alternative model configurations to present viable projections and a range to represent model uncertainty. Given the inability to evaluate a revised long-term rebuild plan, projections assumed the fishing mortality associated with existing rebuilding plan (98% of $F_{30\%MSP}$) in Amendment 17A, because it was similar to the estimate of F_{MSY} from the base model. The SSC also recognized that a new benchmark assessment would be conducted in the next five years due to the closure of the recreational and commercial fisheries (the two data streams used as indices in the assessment) and an expansion of the fishery independent survey.

Request additional projections, sensitivities, or uncertainty evaluation if needed

The SSC did not discuss additional projections, but in thinking further on this issue, managers may also require projections from each run based on other F rates, Fmsy and F30%SPR in particular, if those can be provided in time for the December Council meeting. John Carmichael passed this request on to Dr. Shertzer.

5. Comprehensive ACL Amendment

Overview

This amendment will apply to a number of Council FMPs and will address ACL and AMs for all stocks not addressed through Snapper-Grouper Amendments 17A, 17B, Golden Crab Amendment 5, Mackerel Amendment 18 and CE-BA 2. This amendment will include the ABC control rules for assessed and unassessed stocks developed by the SSC.

Actions

Review species groupings alternatives, comment on the adequacy and appropriateness of suggested groupings, and provide guidance for further work if necessary.

Review data needs and provide guidance
Final review of fishing level recommendations and alternatives.

The SSC provided the following for overall guidance for the amendment. Alternatives should be written in a consistent manner across the actions. Do not set ABCs equal to a percentage of OFL when we cannot define OFL (e.g., for unassessed species). It would be better to set ABC equal to a percent of median or average landings and say OFL is unknown as outlined in the SSC's draft ABC control rule. It is possible that setting ACTs would better serve the Council and help avoid triggering AMs. Refer to these control rules as "Interim control rules" that will be in effect until the final control rules are decided upon. Be careful with overly prescriptive AMs (e.g. only allowing adjustments to the bag limits) - this could limit management options and rule-out more appropriate approaches down the road. Much of this could be handled via regulatory amendments or frameworks.

Comments on specific actions

Action 2: Make sure there are no problems with species identification and that NS1 guidelines hold.

Actions 4 and 5: Combine these. OFL should not equal median catch, because then will overfish 50% of the time and require significant cuts

Action 6: Make sure the recreational data is valid for the years in question

Action 7: Why does the ACL not equal ABC in some cases? Implementation error could be included in the ACT instead.

Action 8: Need both proactive and reactive measures with respect to preventing overfishing. ACT is proactive to avoid having to trigger AMs. AMs are reactive and should be last line of defense.

Action 14: ACLs are split into sectors, not ABCs. Having 3 sectors for ACLs is probably a good thing since they will likely have different levels of implementation errors.

Action 15: Make sure the percentages all add up to 100%.

Action 16: This is well ahead of the rest of the document. There may be timing issues with the AMs. How will overage be defined (the 3-year average compared to the ACL or that year's landings compared to the ACL, but only triggered if 3-year average exceeds ACL). Using 3-year averages may smooth out the trends, but will also result in exceptionally high landings to propagate over time. The AMs need further development and clarification. Specifically, how were they chosen?

Action 17: Can't judge options based on available information

Action 18: Lead people through the logic of these. What are the goals and do the alternatives achieve these goals?

Action 20: If there is a closure under the commercial ACL, do those fish landed under the bag-limit restrictions count towards the recreational ACL? How are they accounted for? Do not be overly prescriptive - Alternative 7 could tie your hands and decrease the flexibility for management. The socio-economic data necessary to evaluate many of these alternatives is completely missing.

Action 21: Don't be overly prescriptive.

Action 25: Why a 5-year average or a 3-year average. What are the effects of these?

Action 30: Currently gives the RA the choice of adjusting the ACL or the ACT. These will have very different effects with respect to future fishing regulations and AMs. Does the council really want to give the RA the option?

Discussion on Species Groupings Analysis

The cluster analysis method is based on statistical association not predictive ability and should not be used to identify indicator species. The use of indicator species can be difficult because it is possible to impact a well-assessed and potentially healthy species due to restrictions on less-well-assessed species. If this method is to be used to generate species groupings for unassessed species, there is still a great deal of work that should be done before acceptance. Many statistical issues need to be resolved as the current methodology makes many assumptions that may not hold. Another issue is understanding the uncertainty associated with the species groupings, what the drivers are, or how sensitive the groupings are to the particulars of the inputs. Most importantly, how will the use of complexes compare to the draft SSC control rule for unassessed species? It is quite likely that the draft SSC control rule for unassessed species will outperform complexes in both regulatory ease and allowing fishermen to keep fishing for other species. There is no guarantee (or even analysis) to demonstrate that the groupings defined by this method will contain species that respond similarly to management actions. This is a critical weakness of the method and the groupings it recommends.

General problems with this method and with using species complexes, in general.

1. Difficult to achieve OY while preventing overfishing.
2. Fishermen will likely have to forgo catch on some species and will likely overfish others.
3. Additional uncertainty will have to be added to both the scientific buffer (to account for uncertainty in the groupings themselves) as well as the implementation buffer (to account for increased uncertainty in how the catches will respond to management).
4. It is not known how uncertain the groupings are and how well we'll be able to detect when the groupings need to be changed.

5. It is not known if groupings allow for a better understanding or will impede understanding the socio-economic impacts of management actions.
6. The statistical underpinnings of the approach are questionable given the temporally correlated and seasonally-impacted data.

Benefits of the approach:
1. It provides a better understanding of how catches are correlated across species and may help with understanding how the management of one species may affect the catch of another.
2. The results are easily comprehended by laypeople.

The SSC recommends against using this method to define complexes for ACLs, and in fact, recommends against using complexes in general unless used to aid with issues of species identification. The SSC feels the single-species approach outlined through the draft ABC provides the best solution for unassessed stocks.

6. Snapper Grouper Amendment 18A

Overview

The SSC originally received this as Amendment 17, intended to address stocks currently experiencing overfishing. Some actions in the original Amendment 17 were moved to a new Amendment 18 following the December 2008 Council meeting. Amendment 17 was split in 17A and 17B at the June 2009 Council meeting.

Amendment 18 included actions to address golden tilefish and black sea bass effort trends, extend the range of the snapper-grouper FMP northward, modify snowy grouper and gag quotas and quota management, and improve reporting.

Amendment 18 was split in September 2010 into 18A and 18B.

Amendment 18A

- Limit participation and effort in the golden tilefish fishery (endorsements);
- Allow for transferability of golden tilefish endorsements;
- Changes to the golden tilefish fishing year;
- Change golden tilefish fishing limits;
- Limit participation in the black sea bass pot fishery;
- Limit effort in the black sea bass pot fishery;
- Implement measures to reduce bycatch in the black sea bass pot fishery; and
- Changes to improve data collection.

Amendment 18B

- Extend the range of the snapper grouper fishery management plan north and

- Designate EFH and EFH-HAPCs in the northern areas.

Note: NMFS and NOAA GC are to review the requirement to extend the FMU north to account for mortality in that area when tracking the ACL. If it is not required then this amendment will not move forward.

Action

Review and Comment

Members of the SSC expressed concern tilefish trip limits for those without endorsements would be low enough to prevent targeting. It sounded like a 300lb trip limit was still high enough for longliners to target. Another concern focused on potential latent effort that could be generated by giving endorsements to those who are not currently fishing. Latent effort could cause problems for future management and could have negative impacts on the market / trading of endorsements. A few latent endorsements will likely command a higher price for new entrants than if there are many latent endorsements.

The SSC supported the Socio-Economic Subcommittee being involved in the process to design the endorsement trading program. Some of the questions that need to be answered include: Can potential entrants see the previous sale price of endorsements? How will the time lags impact the market? The importance of understanding how the market could be affected by potential regulations was also stressed.

Drs. George Sedberry and Jeff Buckel indicated that data currently exist through MARMAP and pot studies conducted though UNC that could provide information on bycatch in black sea bass pots. However, no data exists for the impacts of ghost traps.

7. Snapper Grouper Amendment 24 – Red Grouper Rebuilding

Overview

The amendment proposes a number of rebuilding strategies for red grouper based on constant fishing mortality projections at 85%Fmsy, 75%Fmsy, and 65%Fmsy. The amendment also includes a rebuilding strategy for red grouper requested by the SSC that sets FOY equal to FREBUILD, and would have a 70% probability of rebuilding success in ten years. At their June 2010 meeting, the Council requested an additional projection, which would rebuild the stock sometime between the minimum amount of time that the fishery can be rebuilt in the absence of fishing (three years) and the maximum amount of time allowed by the MSA (ten years) to rebuild an overfished stock.

Two additional projections were requested from the SEFSC. They are

- FREBUILD that would result in the stock being rebuilt in seven years
- Yield at F45%SPR, which is the status quo optimum yield.

Actions

Review and comment on additional projections.

The SSC discussed the projections of red grouper for $F_{45\%}$ and $F_{rebuild}$ and noted the potential problems with the projections. The SSC focused on the third and fourth bullets of section "3 Comments on projections" in Attachment 9. These were:

Third bullet:"Fishery sectors were assumed to continue fishing at their estimated current proportions of total effort, using the estimated current selectivity patterns. New management regulations that alter those proportions or selectivities would likely affect projection results."

The SSC discussed the proposed closed area (off of FL and GA) as a management regulation that would likely impact the red grouper projections through direct and indirect effects. Directly, the closed area will reduce red grouper landings within that area; to what extent this would be important relative to the coastal landings has not been examined to the SSC's knowledge. Members of the SSC noted that RG landings in the closed area were low and suspected that the closure would have minimum direct effects on landings (see figures below).

However, the SSC did believe that an indirect effect of the closed area would be a shift of effort into other areas and that this should be evaluated. For example, there have been management measures taken by NC to handle the movement of fishers from FL to NC during parts of the year. The spatial shift in commercial effort will likely continue and this will increase the proportion of effort where abundance of red grouper appears to be higher (assuming again that their catch of RG in the closed areas was low). This would lead to a decrease in the speed of rebuilding and should be taken into account as rebuilding moves forward.

Fourth bullet: "The assessment's estimate of Fcurrent (2006–2008) was applied in projection years 2009 and 2010. It is expected that the recently implemented four-month grouper closure would affect mortality rates, but for now the realized effect is unknown."

The SSC discussed this assumption and felt that the four month closure might cause a large reduction in the landings; if so, the projections that do not take this temporal closure into account might be overly pessimistic. This potential reduction in landings and potential to increase the speed of rebuilding should be examined as landings after the spawning closure are reviewed.

It was recognized that any shifts in effort or reduction in landings would not be able to be quantified until the regulations have been in effect for a couple of years. There

should be an effort to compare actual landings to the projected landings in the future to quantify the effect of the regulations on red grouper fishing mortality rates and biomass level. The SSC felt these projections were based on the best available science.

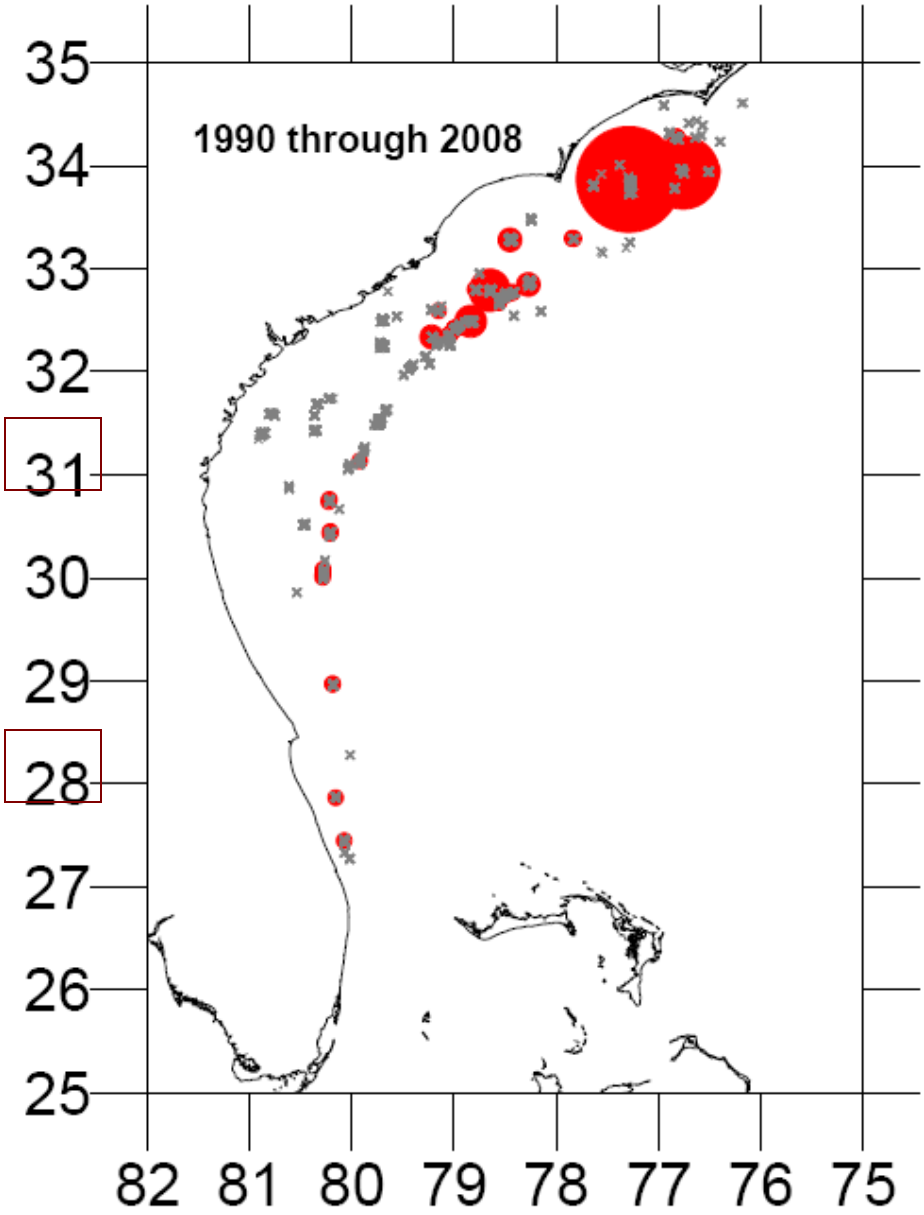

Figure 5.1. Effort and number of red grouper observed per chevron trap set during the MARMAP Survey (1990 – 2008). Gray crosses represent effort (5662 chevron trap sets). Red circles indicate trap sets where red grouper were observed. The diameters of the circles are linearly related to the number of red grouper observed during each chevron trap set (non-zero range: 1 – 12 red grouper per chevron trap set).

Source. SEDAR 19 Red grouper stock assessment report. Latitudes highlighted are the areas that will close in 17A.

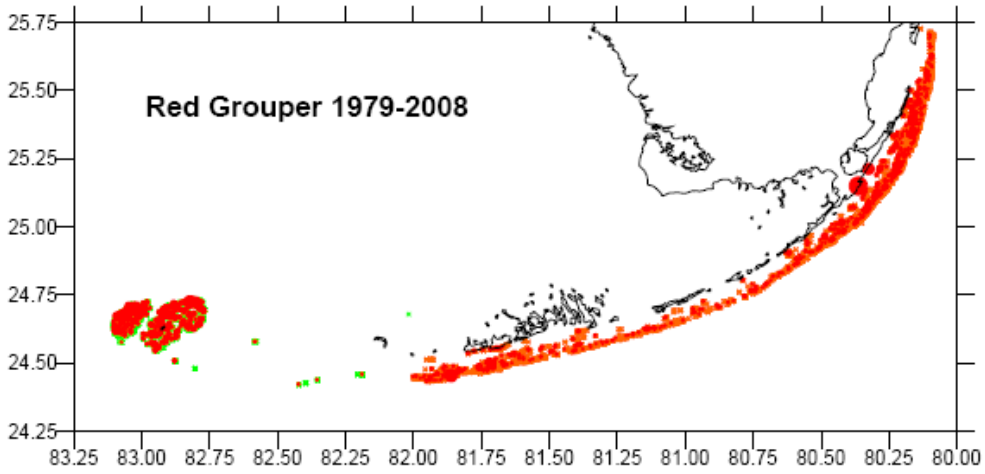

Figure 5.3. Effort and number of red grouper observed per sampling plot during the RVC for both the Florida Keys (1979 – 2007) and Dry Tortugas (1994 – 2008). Orange crosses represent RVC effort for the Florida Keys sampling area (14715 sampling plots); while green crosses represent RVC effort for the Dry Tortugas sampling area (4005 sampling plots). Red circles indicate plots where red grouper were observed. The diameters of the circles are linearly related to the number of red grouper observed at each sampling plot (non-zero range: 1 – 10 red grouper per sampling plot).

Source. SEDAR 19 Red grouper stock assessment report.

8. Snapper Grouper Regulatory Amendment 9

Overview

This Regulatory Amendment establishes trip limits for several snapper-grouper stocks and adjusts black sea bass measures.

- Trip Limits for black sea bass, vermilion snapper, gag and greater amberjack
- Black sea bass fishing year and spawning season closure

Action

Review and comment on actions and alternatives

For Amendment 9, the SSC did not get a chance to look at the Science Center's spreadsheets or any analysis from them, so the committee was not able to provide comment. It was agreed the Socio-ec subpanel would meet before the next SSC meeting in April and review the work, including implications for the makeup of the fleet (small vs large boats etc). The Subpanel will probably meet in February or March next year.

9. Snapper Grouper Regulatory Amendment 10

Overview

This Amendment modifies red snapper actions. At their September 2010 meeting, the Council decided that a Regulatory Amendment through framework action and an environmental assessment would be the proper level of analysis in order to analyze a change in regulations from those actions proposed in Amendment 17A. The Council provided the following two alternatives to act as bookends for the analysis:

(1) The combination of the red snapper closure and the smallest possible spatial closure to close snapper grouper fishing.

(2) The combination of the red snapper closure and the closure in Amendment 17A but possession and retention [of snapper grouper species] would be allowed a portion of the year.

Actions under this RA are dependent upon the findings of the SEDAR 24 benchmark of Atlantic red snapper.

- Modify red snapper regulations in response to the new stock assessment

Actions

Review and comment on actions and alternatives

The SSC recommended updating the values used in the area model to reflect the estimates generated through SEDAR 24. These values include estimates of bycatch mortality, and the % reduction in F generated for each of the projections recommended under the SEDAR 24 discussion.

10. Comprehensive Ecosystem Based Amendment 2

Overview

Actions in the Amendment

- Remove octocorals from the FMU under the South Atlantic Coral FMP.
- Extend the FMU for octocorals into the Gulf Council's area of jurisdiction.
- Modify the ACL for octocorals in the South Atlantic.
- Modify management of South Carolina SMZs.
- Modify sea turtle release gear requirements for the snapper grouper fishery.
- Amend the Shrimp FMP to designate new EFH-HAPCs.
- Amend the Snapper Grouper FMP to designate new EFH-HAPCs.
- Amend the Coastal Migratory Pelagics FMP to designate new EFH-HAPCs.
- Amend the Coral FMP to designate new EFH-HAPCs.
- Amend the FMP for Pelagic Sargassum Habitat to designate new EFH
- Amend the FMP for Pelagic Sargassum Habitat to designate EFH-HAPCs.

Note: At their September meeting, the Council decided to remove Actions specifying MSY, OY, ABC, ACL, and AMs. These actions were replaced with a discussion. A new action modifying the ACL for octocorals was added.

Actions

Review and comment on actions and alternatives.
Comment on the new alternative to modify the existing ACL in the Gulf and South Atlantic for octocorals to 50,000 colonies for state and EEZ waters combined.

The SSC didn't have any major comments or concerns regarding the proposed actions and alternatives in CEBA 2. The proposed new alternative to modify the existing octocorals ACL in the Gulf and South Atlantic to 50,000 colonies for state and EEZ waters is consistent with the SSC's ABC recommendation for octocorals, i.e., the SSC's recommended ABC was intended to cover both state and federal waters.

11. Information and Updates

Gregg Waugh was not available to discuss the current status of the various FMPs. Dr. Belcher referred SSC members to the roadmap for the current timeline of the amendment currently in the Council queue.

12. Next Meeting

Proposed meeting dates for 2011
April 5 – 7, 2011 in Charleston, SC
November 8 – 10, 2011 possibly in Raleigh, NC

13. Other Business

Dr. Neer requested two participants for a SEDAR sponsored workshop to discuss Marine Protected Areas (MPAs) in the South Atlantic and Caribbean regions. The Caribbean region has a large number of MPAs that the effects of the protection have never been assessed. The purpose of the meeting is discuss the methodologies used to assess the effects of the protected areas as well as looking to other evaluations as a measure of success for some of the more common MPA types. The meeting is scheduled for the week of March 14, and will be held in St. Thomas, USVI. Given past and current involvements with MPAs, Anne Lange and Dr. George Sedberry volunteered to participate. Dr. Marcel Reichert has also offered to be a back up participant if either one has a conflict.

14. Adjourn

Meeting was adjourned at 12:20 Wednesday November 10.