SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

SCIENTIFIC AND STATISTICAL COMMITTEE

Webinar

August 15, 2024

Transcript

Scientific and Statistical Committee

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Attendees and Invited Participants

Rick DeVictor
Dr. Matthew Vicent
Dr. Eirk Williams
Dr. Luiz Barbieri
Dr. Bill Harford
Vania Henriquez
Joe O'Hop

Observers and Participants

Other observers and participants attached.

The Scientific and Statistical Committee of the South Atlantic Fishery Management Council convened via webinar on August 15, 2024, and was called to order by Dr. Marcel Reichert.

INTRODUCTIONS

DR. REICHERT: All right. Let's get started. Welcome to the August 2024 South Atlantic Fishery Management Council Scientific and Statistical Committee webinar today. My name is Marcel Reichert, and this is my first meeting as the new chair, with Dr. Wally Bubley as vice chair. I first want to thank the committee for their trust in electing me as chair, and I thank Wally for stepping in as vice chair.

I would also like to acknowledge Judd, and the other members of the SSC ExCom, Jennifer and Jeff, for assisting with preparing for this meeting. We have a full agenda, and thanks, Trish and Kyle, for joining us today, and it's always good to have feedback from the council, and Kyle as the representative, currently, from the Southeast Fisheries Science Center. Judd, before we start off, perhaps we should do introductions. Judd, or Chip, would you guys take the lead on that?

DR. CURTIS: Marcel, what we'll do is just go down the list that you used to check-in and test your audio, and everybody just, for voice recognition for the record, just state your name and your affiliation, starting with you, Marcel.

DR. REICHERT: Marcel Reichert, SSC.

DR. BUBLEY: Wally Bubley, South Carolina Department of Natural Resources.

MR. ADDIS: Dustin Addis, Florida FWC stock assessment.

DR. BUCKEL: Jeff Buckel, North Carolina State University.

DR. CAO: Jie Cao, NC State University.

DR. CURTIS: I don't see Chris on the webinar yet, and so let's go ahead and skip to Jared.

DR. FLOWERS: Jared Flowers, Georgia DNR, Coastal Resources Division.

MR. GARTLAND: Jim Gartland, Virginia Institute of Marine Science.

DR. LORENZEN: Kai Lorenzen, University of Florida.

MS. MARKWITH: Anne Markwith, North Carolina Division of Marine Fisheries.

DR. NESSLAGE: Genny Nesslage, Chesapeake Biological Lab.

MS. PACKAGE-WARD: Christina Package-Ward, NOAA Fisheries, Southeast Regional Office.

DR. SCHARF: Fred Scharf, UNC-W.

DR. SCHUELLER: Amy Schueller, NOAA Fisheries Southeast Fisheries Science Center.

DR. SWEENEY-TOOKES: Jennifer Sweeney-Tookes, Georgia Southern University.

DR. TURNER: Steve Turner, SSC.

MR. WALSH: Jason Walsh, North Carolina Division of Marine Fisheries.

DR. CURTIS: Trish, if you want to go ahead and give your just voice recognition, for the record.

MS. MURPHEY: Trish Murphey, North Carolina Division of Marine Fisheries and South Atlantic Council Vice Chair.

DR. WILLIAMS: Erik Williams, Southeast Fisheries Science Center.

DR. REICHERT: I see Shep, but I don't hear him.

MR. GRIMES: Shep Grimes, NOAA GC.

DR. REICHERT: Thanks, Shep and Erik, for joining us. Thank you. Next is the Approval of the Agenda. We have a full agenda today, with hard start of the presentation of the management strategy evaluation presentation at 1:00, after our lunch, and, depending on how we're doing, we may adjust the agenda a little bit to accommodate that presentation, and so just as a heads-up for everyone. Any comments or questions or additions to the agenda from anyone? No hands?

DR. CURTIS: No hands, Marcel.

DR. REICHERT: Okay. Then the agenda is approved. We also need to approve the April minutes, which were in Attachment 1b. Any comments, or additions, to the April minutes from anyone? No comments. No hands, and so the minutes of the April meeting are approved. As I mentioned in my email, and sorry that I missed the link to the correct briefing book, and thanks, Fred, for noticing, I didn't assign any tasks for this webinar, but I am asking everyone to make notes for our report. We have a relatively short turnaround, and we'll talk a little bit more about that at the end of the meeting today.

Next up is Public Comment, and we'll have several opportunities for public comment during this meeting. If you would like to provide comments, please raise your hand in the webinar, or send a message to council staff, using the comment box. Before we start with our next agenda item, are there any members of the public who would like to make a comment right now, and I'm also asking, and were there any written comments? I don't think that I saw any, Judd.

DR. CURTIS: I didn't see any, the last I checked, but I will check again at the break and make sure those get on the record.

SEDAR 76: BLACK SEA BASS OPERATIONAL ASSESSMENT PROJECTIONS

DR. REICHERT: Okay. No hands for comment or any comments in the comment box for the public at this point? Seeing none, let's move to Agenda Item 3, the Black Sea Bass Operational Assessment. A couple of comments on my end, and I want to mention that we'll come back to this in our October meeting. The Attachment 3c was for our information, and so I don't intend to have a conversation on the red snapper document, but that's just because it was mentioned in the other attachments. A quick question, and did we receive Attachment 3b, Judd?

DR. CURTIS: No, we did not receive Attachment 3b, and so we'll have to work off the materials that we have, and, just to add to what Marcel mentioned at the beginning, the Attachment 3c is a previous document that was reviewed by the SSC, having to do with the red snapper additional projections scenario, and that was included just as supplementary information, because a similar, potentially similar, approach is being proposed for the black sea bass projections, as they reallocate discard F into landings F, which was requested by the council, and so that's -- As Marcel said, we're not reviewing that document, and that is just there for supplementary information.

DR. REICHERT: Thank you, Judd, and, also, today's discussions should focus primarily on the projections and provide guidance to the South Atlantic Fishery Management Council staff. Judd, do you have any other comments, before we hand it over to -- I think it was Matt Vincent who is doing the presentation.

DR. CURTIS: Yes, that's correct. Before handing it over to Matt, I just wanted to state -- So this is kind of the first stepping stone towards maybe the final projections, and Matt had some questions that he needed answered by the SSC before moving forward with some of the modeling projections for this particular management scenario, which has to do with changing the minimum size limits, and there's also a few other requests into the center from the council and council staff on different mechanisms for the projections, and we'll see some more of those scenarios in October.

DR. REICHERT: Thanks. Is Matt on the webinar?

DR. VINCENT: Yes, I'm here.

DR. REICHERT: Okay. Judd, I will let you take care of providing Matt either with the control or you do the slides, and I will leave that up to you guys.

DR. CURTIS: Matt, I can either hand the presentation capabilities over to you, or I can bring it up as a PDF and just scroll through it.

DR. VINCENT: I'll take it. I've made some changes, and so --

DR. CURTIS: Okay.

DR. VINCENT: Okay. Can you see the presentation?

DR. REICHERT: Yes, we can see it, and, Matt, if you wouldn't mind providing that update to council staff, and we can replace that.

DR. VINCENT: Okay. Yes, I can do that.

DR. REICHERT: Thank you. Appreciate it. Take it away.

DR. VINCENT: Okay. Well, good morning all, SSC, and I've got a lot of questions for you, but I've slightly changed the presentation, and so hopefully it will result in some good discussion, instead of just asking questions, and so we received request from the council for updated projections for black sea bass.

The first topic was to have a change in the size limit, and so they wanted new OFL and ABC projections using a minimum size limit of an L50, an eleven-inch, a twelve-inch, and a thirteen-inch, and so we went and calculated the L50, and this corresponded with an eleven-inch, and so we didn't -- We aren't presenting a specific scenario for the L50, because it corresponds with the eleven inches, and then they also requested maximum size limits with a 50 percent and 100 percent of the populations that are predicted to be male, and so the 50 percent predicted to be male -- I believe that was similar to -- I think that was also eleven or twelve inches, and it was somewhere in there, and then, at the oldest age, we never got to 100 percent males, and it was only like 99.8, or something like that, and so that was the oldest age.

With discussions with council staff, we decided not to pursue any of these projection scenarios at the current time, but maybe in the future, and then on to the second scenario that was requested, and my understanding was that they were requesting projections for having a closed season of discards in Wave 1 and Wave 2, and the scenarios that are presented from red snapper are related to having descender devices and reducing the discard mortality, but this really wasn't discussed, or presented, in any of the previous assessments, and so I didn't really pursue that very much, but I will talk about the assumptions that I think are reasonable for a closed season in Wave 1 and Wave 2, and we'll talk about that more later.

As a reminder of some of the specifics for the projection scenarios that we had previously presented, we assumed that we were separating the discards from the landings, which previously hasn't been done, and so we're going to model the discards using the weighted selectivity from the assessment, and then multiplying it by the recent F, and project this forward in time, and this will give us the discards for our projection scenarios.

Then we determined our landings from the weighted selectivity and then determined what the rebuilding F is for the long-term average recruitment. We are also going to present scenarios for recent average recruitment, to calculate the ABCs, but, in this presentation, we didn't present any of those, just for the sake of time, and have focused mostly on the long-term average recruitment scenarios.

In order to calculate projections, we need to have a selectivity curve and a fishing mortality. Once we separate out the landings and the discards into different selectivity functions, this makes things a little bit more complicated, and so, for the different size limits, we need to set the landings selectivity and the discards selectivity and then the weighting of the relative influence between the landings and the selectivities between those two curves.

How we do this has big implications on the projections themselves, and so, for all of these scenarios, I made the assumption that the discard fishing mortality will be based on the geometric mean of the last three years from the stock assessment. You could potentially make other assumptions, such as using the F that's associated with the period that the selectivities are taken

from, but we didn't think this was a reasonable assumption, but we're just presenting it out there that this is a possibility for different discard fishing mortalities. Then, as I have previously stated, the landings fishing mortalities was based on the -- It was tuned and determined by the F that gave a 70 percent probability of rebuilding from the numerous projection scenarios, or projection replicates. Sorry.

To calculate the different selectivities for the landings, we took different ones for the different minimum size limits, and so, for the eleven-inch size limit, we took the geometric mean of the fishing mortality from the commercial pots, or commercial traps, and calculated that value from 2013 through 2021, and we did the same thing for the commercial handline from that same time period. Using these two Fs, we calculated the weighted average of the two selectivity curves from these two fleets and combined them into a single selectivity curve that gave us something that would approximate an eleven-inch minimum size limit for the landings selectivities.

For the twelve-inch minimum size limit, we took the geometric mean of the Fs from 2007 to 2012, for the recreational and the headboat fishery separately, and then weighted the selectivity curves for these two fleets during that time period, and averaged them together, to give us that twelve-inch minimum size limit selectivity curve, which I'll show those values later on in the presentation.

Then, for the thirteen-inch, we took -- We did the same procedure for the recreational and headboats, but we used the time period from 2013 to 2021, and, luckily, we were able to do this, because they were all easily estimated -- Or they were estimated from the stock assessment, and, if we came up with different size limits, it would be much more difficult to figure out what the selectivity curve would be, because we didn't have something previously to base them on, and so, to get the discard selectivity from this, we took the eleven-inch -- Or we took the combined commercial discard selectivity from 2014 to 2021, and so this time period is slightly different, because there was closed seasons from 2009 to 2013, and so those selectivities were slightly different for the discards, because they had older and larger fish that were discarded during that closed season time period, and so that's why those years are slightly different for the eleven-inch minimum discard selectivity curve.

Then, for the twelve-inch minimum size limit, the recreational and headboats were both mirrored, and so we didn't have to do any reweighting or anything like that, and we just simply took the selectivity from 2007 to 2012 from the stock assessment, and, for the thirteen-inch minimum size limit, we took the time block from the end of the time period that corresponded with the same thirteen-inch minimum size limit.

In order to calculate the weighting of the discards -- The original idea was to calculate the ratio of the fishing mortality from the landings to the discards, and this would give us our different weighting, and so, looking at the figure on the right, on the X-axis, we have the different scenarios, and I will talk a little bit more about each scenario, or how they're calculated, but then, on the Y-axis, and this should probably be just the proportion of F landings to total landings, instead of a proportion kept, and so it's a proportion of fishing mortality from landings to -- Relative to the total fishing mortality for a specific sector.

The first scenario is from the commercial sector, assuming the eleven-inch time block, and, as you can see, this results in nearly 100 percent of the fishing mortality is being allocated to landings, and none is it is being put into the discards, and so we didn't think this was a very reasonable

assumption, given that, if you look at the scenario all from 2009 to 2006, which is where you had an eight-inch selectivity across all sectors, we can see that it's already at a 90 percent being at discards, and so we didn't think this was a reasonable assumption, to have 100 percent of the landings being -- Or essentially no discards, assuming an eleven-inch minimum size limit.

We ended up deciding to use the time period from 2007 to 2008, using all selectivities, and so, for this, or using all fisheries, and so, for this time period, or, actually, for the time period 2007 to 2012, we had a minimum size limit, in the commercial fishery, of ten inches, and a minimum size limit, in the recreational fishery, of twelve inches, and, if we assume that they're relatively evenly split between commercial and recreational, this kind of gives us an eleven-inch minimum size limit, and so that's kind of why we chose that time period.

Then the reason why we narrowed it down to 2007 to 2008 was because, starting in 2009, there were closures in the commercial fishery, and so this resulted, as you can see, in lower -- Or in higher discards during those closed seasons, and so we made the assumption that, going forward, that there wouldn't be any closed seasons in the commercial fishery, and so we used this 2007 to 2008 time period.

Then, for the recreational fisheries, we just based it on the relative proportion of landings F to total F for the recreational fisheries from the MRIP and from the headboat fisheries, and both of these seemed reasonable, but we can also see that the time period that you choose can have an impact on the results, and so, if you look at the second-to-last one, you can see that this is the geometric mean for all fisheries, and so they have the same selectivity blocks for that entire time period, from 2013 to 2011, but it has a lower proportion of discards than you do when you have -- When you just look at the terminal three years, and so the discard mortality in the terminal three years has increased quite a bit compared to that eight-year, or nine-year, time block, and so that's just something to pay attention to.

For each of the minimum size limits, I tested two different scenarios, and so I kind of already talked about the first scenario, that is specific to each of the minimum size limits, and I won't go over those again, but, for all three of them, I also tested, using the ratio of all-landings F to the total landings, or to the total F, for the terminal three years of the assessment, and so this is assuming that they will be -- That the fishing mortality will remain pretty much the same, despite the change in the minimum size limit, and so I don't know if that's a reasonable assumption or not, but it's something that we tested, just to show that there's quite a bit difference in the two, and try to help make sense of the results, to some degree.

On the left, and so this is for the two scenarios with the eleven-inch minimum size limit. On the left, we have the weightings based on all fisheries, from 2007 to 2008, and so I'm going to go through what each of the different colors are. In the black, and these are individual lines from the MCBE, and so it kind of makes a cloud of the range of different values that you have. The green line, with the dots, is the weightings based on -- Or from the base model, using the different assumptions that we have, and, then, as a reference, the red dashed line is what our reference points are based off of, and so this is the weighted selectivity from 2019 to 2021, for all fisheries in that terminal year, and it's what our reference points are based off of.

On the top, we have the total selectivity, in the middle we have the landings, and then, at the bottom, we have the discards, and, as you can see, if we use the weighting from 2007 to 2008, you

have a much lower discard influence than you do if you use the weightings from the most recent three years, and so this has a large impact on your total selectivity, and you can also see that there's quite a bit more uncertainty in the asymptotic selectivity, based on the most recent one, because we have -- Sometimes the discard mortality can be more influential than the landings, using the weighting from the most recent time period.

This plot shows the projection results, and so the values that we're multiplying by -- This is the F that gives us -- Or this is the multiplier of the F 40 percent that gives us the 70 percent rebuilding, and so, if you look at the spawning stock, we end up in fairly similar places between the two scenarios, and we have similar recruitment, but we have widely different fishing mortality, and so you can see here that we have a zero percent multiplier of the F 40 percent, using this most recent weighting, and this is because, even at this scenario, it results in only a -- I want to say 67 percent probability of rebuilding, and so it doesn't quite meet that 70 percent rebuilding threshold.

If we switch to the next slide, we can see that this difference is mostly attributed to the very wide difference in what our discards are, and so we have a much higher discard mortality using the weighting from the most recent time period, and we can also see that there's quite a bit difference in our removals, given that we have zero removals, essentially, for the most recent time period, but we do allow more removals, and you end up having more removals than what the FMSY metrics would allow, but this is because our discards are also much lower than what the FMSY would allow, and so, essentially, we're having -- Well, we'll skip that thought and continue on with the presentation.

This shows the selectivity curves, assuming the twelve-inch minimum size limit, and, as you can see, once again, we have much more influence of the discards for the -- Assuming the weighting of the most recent time period than we do for assuming the 2007 to 2012 time period.

Once again, and so, in this scenario, we end up having to allow a 70 percent probability of rebuilding, and we actually have an F that's above one, and so this indicates that you're likely overfishing, and so, in the actual scenario, I think I would probably cap this to probably a value of one, and possibly even lower, but I just presented this to show that it can allow for an F higher than fishing mortality, or the FMSY, and it allows a 70 percent probability of rebuilding, just because of the change in the selectivity. However, under the scenario with the most recent weighting, it results in a drastically lower F of -- Or a multiplier of F 0.1.

As you can see, our fishing mortalities are drastically different, as you can tell by the multipliers, and our removals are quite different, as well as our discards, and so pretty much I just want to drive home the point that, whichever assumption we make, it will have very large implications upon our results, and then the same thing for the thirteen-inch. It's more similar, because this is -- Well, because the time periods overlap, essentially, and so we won't see quite as large of a difference, but it does have quite a bit difference in terms of the multiplier, and so you have a much lower F in the recent years, if you're assuming the recent weighting of the landings to discards.

Then, once again, we can see that the removals are much higher in the more recent scenario, and it actually ends up in removals above the FMSY, or really close to the median FMSY, but our discards are slightly below the FMSY from the base model.

Moving on to the scenario with the closed season, the proportion of the landings to the discards, we obtained the proportions of the landings to discards in Waves 1 and 2 from the MRIP and the headboats, and so the idea was to calculate an average F between those two fleets and to calculate the landings and discards in the Wave 1 and Wave 2.

However, history has shown that, like whenever we have a closed season, all these fish that are caught during this time, season, become discards, and so the hypothesis that I'm going under is that, if we have a closed season, we're going to have to take the fish that are caught during Waves 1 and Waves 2 and transfer them into the discard fishing mortality.

However, the size selectivity will be different, because we'll be discarding all sizes, but we could just make the simplifying assumption and just transfer them into the smaller sizes, or we could do something more complicated. Additionally, it wasn't clear how this closed season would -- What this closed season would affect, whether it would affect all fishing, and so like nobody would be fishing at all, or if it was just for like black sea bass, and so, if it's a closed season, where you're closing fishing to all fish in an area, then it might be reasonable to assume that we can actually reduce the overall F, but it wasn't quite clear to me what the management actions were, and so, depending on what the management actions were, it will depend on what the reasonable assumptions would be to make.

It also depends to what sectors these closed seasons are, and so, if we're closing just federal waters, we would still have discards from shore or inland fishing, and so these would then potentially also be discards that we would have to account for.

Then there was also additional requests from, and I think it was in June, or July, from the council, and so their first scenario that they requested was to use the current projection method and then incorporate a phase-in of the ABC, using different landings for the first three years of the assessment, or of the projection period, and so -- Then to compare the probabilities of rebuilding for the different time periods, and so I'm not sure if they want me to -- Sorry. There's a lawnmower right outside my window. Hopefully you can't hear it.

They want to compare the probability of rebuilding, and so I'm not sure if they want me to recalculate so that there is a 70 percent probability of rebuilding by each of these years or just to show them the results and allow them to have -- To potentially not meet that 70 percent probability of rebuilding. My additional concern is that it might end up resulting in having very high levels of F, which was a concern to the SSC in our previous attempts, when we were fitting to landings, but I think these -- Doing these things is feasible.

However, going on to their second request, so they want to apply the current commercial and recreational allocation to the total fishery yield and then subtract out the discards from each sector to provide sector-specific ABCs for both the 30 percent and 40 percent SPR scenarios, but so the problem with the 30 percent SPR is I think that it results in a very, very high F, that the SSC kind of deemed was unreasonable to use, and so I'm not sure if we should present those scenarios or not, and then assume status quo selectivity for both sectors.

Based on the ABC phase-in assumption, we can assume that the fishing mortality from the discards will remain the same and that we can solve for the F, to give the proposed phase-in landings, and so this is possible, and we already talked about that. Then we'll have to solve for the new F that

gives the rebuilding for these time periods, and so, since we already talked about that, we'll skip on.

The scenario that seems to be problematic for doing this scenario is this subtracting out the discards from the allocations, and so, when we calculate the geometric mean of F from the terminal three years of the stock assessment, the percent of the discards F from the commercial fishery is less than 1 percent, and so, effectively, all of the discard mortality is from the recreational, and so 99.925 is from the recreational fishery, and so the percent of F from the discards overall, from all fisheries, is 28.8 percent.

Then, from the ABC projections in 2025, the discards, in weight, is 92 percent, essentially, and so it's 500,000 pounds, whereas the landings are 35,000 pounds, and so, as we can see, the recreational discards would overall exceed the allocation, if we were turn the total pounds, or the total landings, into -- The total landings into sector-specific allocations and then take out the discards. Additionally, this implicitly assumes that a pound of discards is equivalent to a pound of landings. However, given that landings are older and larger sizes, this might not necessarily be true, in terms of rebuilding allocations going forward, and so we're sort of looking for some guidance on how best to approach this request and whether these scenarios are reasonable to pursue.

In the draft presentation, I put these discussion questions, to remind us of the questions. However, instead, I'm going to present a couple of strawmen, and, from that, we can then discuss what the questions are.

The first question relates to what are reasonable assumptions for the weighting of landings to discards, and so my strawman is to use the -- For the eleven-inch, it's to use the weightings from the 2007 to 2008 for all fisheries. For the twelve-inch, use the weightings from the recreational fisheries from 2013 -- That can't be right. Sorry. I have 2013 to 2018, and then, for the thirteen-inch, for 2019 to 2021, for all fisheries, using that recent F, because that seems to be the most reasonable assumption.

Then the second question was whether I should make different assumptions about what the F for the discard mortality is, and I think we'll just keep things simple and assume the recent F for the discard mortalities for all of the different minimum size scenarios, and then, for the closed season scenario, my thought is that they would be closing off just black sea bass, and so you would still have fishing mortality in the region, and so what you would do would be to multiply the recent recreational landings F by the seasonal proportions for Wave 1 and Wave 2 and then just transfer this -- Then multiply it by the discard mortality rate from the stock assessment, and then this would give us a new F that we would then add to the current discard Fs.

I think this would end up doing the exact opposite of what they're -- Like you'll end up having less landings, which is what they're hoping to do the opposite of, and you'll have a lower rebuilding F for the landings. However, given what we've seen with red snapper, the closed seasons generally result in more discards, and so I think this is a reasonable assumption, but I'm open to discussion and alternative hypotheses that the SSC would like to pursue.

Then, for the last scenario with the allocations for subtracting out the discard mortalities, the idea would be to not perform the projections, but just to show that the recreational discards alone

potentially exceed the allocations for that sector, and so I will open it up to questions and discussion.

DR. REICHERT: Thank you, Matt. Let's do some clarifying questions first, and then we'll have public comment, and then we can start our discussion, and so does anyone have any clarifying questions to Matt, for Matt? Judd or Chip, can you let me know if there's any hands raised?

DR. CURTIS: Marcel, I am monitoring the hands raised, and I was just going to say that I'll leave Matt as the presenter right now, so he can cycle back to any slides that he has referenced, because we don't have those slides right now.

DR. REICHERT: Okay. No hands?

DR. CURTIS: Marcel, I've got Jeff with his hand raised.

DR. REICHERT: Go ahead, Jeff.

DR. BUCKEL: Thanks, Judd, and thanks, Marcel. Nothing clarifying, but I guess I'm wondering about the process, how we got here. The last -- You know, I gave a presentation in March, with the projections and the SSC's recommended ABC, the recommendations, and so I guess if you can fill me in on the process of if the SSC provided ABCs, and isn't that where things stand, or I'm not -- It sounds like the council is asking for new projections and things that I guess I wasn't expecting, and I was surprised when I saw this analysis in the briefing book, and so if someone can, I guess, fill me in on that, and it just seems like we need to -- You know, we saw Wally's, the South Carolina DNR, report on the catch per trap, and it was the lowest.

Black sea bass at the lowest, and then Nate Bacheler's video report just came out, and 2023 was the lowest on record, and so I feel like, you know, this is something we need some action, and what we're looking at here is stuff that's putting ABCs off into the future, and so, if someone could fill me in on how we moved away from the ABCs that were presented in March, I would appreciate it.

DR. CURTIS: Marcel, I'll chime-in on that, if that's all right.

DR. REICHERT: Sorry?

DR. CURTIS: Jeff, the council reviewed the SSC recommendations, right, and it was noted that cuts would need to be made to the ACLs, and so part of the management options that were proposed by the council were to change those minimum size limits, and that, of course, changes the selectivity inputs into the assessment projections, and so that's what Matt is presenting here, is how a change in the minimum size limit changes the projection schedule.

As well, the council discussed then using the new ABC control rule phase-in approach option to work their way down towards the MSY level that they need to achieve in the rebuilding plan, as opposed to taking that one hit all at the same time, and so those projections then were not available in the initial stock assessment report, and projections, and so that was another task for the Science Center to work on, is a phase-in approach, which we'll see in October. These are some of the questions that Matt has proposed, that he needs some input on from the SSC, before continuing to

produce the new projection results, based on the management options that are on the table, and hopefully that clarifies some things.

DR. REICHERT: Jeff, does that clarify it?

DR. BUCKEL: Yes, and thanks, Judd, and so the idea is we've got this stock that's got these issues, and we're going to a smaller minimum size, and is that what is being proposed?

DR. CURTIS: Yes, and there were several options on the table for the council, and it was either equalizing the minimum size limits between the recreational and the commercial sectors, because they're currently different, changing one or both, and so the eleven, twelve, and thirteen-inch limits were the proposed alternatives that they wanted to explore, and so that's why you see those three minimum size limit analyses here today.

DR. BUCKEL: Thanks, Judd.

DR. REICHERT: Jeff, let me ask you this question, because I've struggled with this a little bit myself, too. For our October meeting, would it be useful to start off where we have this black sea bass discussion, to kind of start off with a very brief overview of how we got here, perhaps, or does this clarify things enough for the committee?

DR. BUCKEL: Yes, I think it would be helpful to have a brief review, but, you know, I guess the other thing is that some of these approaches, right, have been examined, in recent analyses, and I don't -- These changes in the size limit, or closed seasons, they haven't reduced F, right, with these high-discard fisheries, and so I guess that's the other thing I'm wondering, is, you know, I hate to see Matt spend a lot of time on all these projections with approaches that have been -- I think, from some of Kyle's analyses with red snapper, that, you know, they're not -- They haven't been shown to get us to where we need to be.

DR. REICHERT: Yes.

DR. BUCKEL: That's a bigger concern, that what we know from other analyses.

DR. REICHERT: Thanks. We'll discuss this, and I think it would be good to kind of refresh everyone's memory, and I appreciate that.

DR. CURTIS: Marcel, I've made a note here, and I can put together an overview presentation for our October meeting on, you know, the decisions made by the SSC, and how we got here, similar to what we did for Spanish mackerel at the previous meeting, to kind of bring the entire SSC up-to-speed and what decisions need to be made in October.

DR. REICHERT: Thank you. I think that would be very helpful. Jeff, or anyone else, other clarifying questions? I have two, if there is no hands.

DR. CURTIS: Go ahead, Marcel. I'm not seeing any other hands.

DR. REICHERT: Okay. Did you guys -- Matt, did you guys look at potential effects of the changes in minimum size on reproduction, and I'm thinking especially about the whole low-recruitment issue, and I assume that you kept all those parameters the same in all of your analyses.

DR. VINCENT: Yes, and we did not explore changing any of those reproductive -- They're all assumed to be the same, and the SPR is based on the sum of male and female mature weight.

DR. REICHERT: Okay. Thank you, and, as you mentioned, closing federal waters only would be very different from closing all waters, including state waters, and remind me, and do we have information on the proportion of black sea bass catches in state versus federal waters? I think that would be critical information to understand the impact, because black sea bass is mostly a shallow-water fishery, correct?

DR. VINCENT: I am honestly not sure about that. I will have to look into that. I believe there might be some information, but I'm not sure how detailed the MRIP data are.

DR. REICHERT: I was just wondering, and I guess that would make the projections really complicated, and I was just wondering about that, what the effect of closed season -- Of closing federal waters would have overall, and that goes -- I think it also goes back to Jeff's comments earlier, that, no matter how we cut it, you know, rebuilding will continue to be very problematic, right?

DR. VINCENT: Yes.

DR. REICHERT: Okay. Any other clarifying questions? If not, are there any hands raised for public comment at this point, Jeff or Chip?

DR. CURTIS: I am not seeing any hands. I had a question though, Marcel, for Matt, if that's all right.

DR. REICHERT: Absolutely.

DR. CURTIS: Matt, I think on the -- I think it was the eleven-inch scenario that you had provided, and you had, you know, the -- In those projections, you had shown that -- I think it was the next slide, and it had landings and removals. Yes, that one. Landings and removals and then the projected discard removals, and it noted that, you know, for the landings, you're way above that FMSY value, but then the discards are way below, and is there a combined analysis, where you could see if combined removals and combined landings and discards compare to that FMSY threshold, because that's the idea in reallocating the discards to landings, would be just that, and if it's -- If it goes below that FMSY threshold, then, you know, that would be an achieved goal.

DR. VINCENT: So part of the issue here is that, like I said later in the presentation, that like pounds of removals don't equally equate to pounds of discards, especially for going forward in the population, in terms of the SPR and rebuilding threshold, because, if you're removing discards, you might have a lot more smaller fish that you're removing to get the equal weight of removals of older mature fish, and so combining the two --

I mean, you can kind of combine them eyeballing it, looking at like that's around 1,500, in terms of weight, and then we've got maybe 600, in terms of discards, and then you can compare it to the 2,000 or more of dead discards, over on the right, and you can kind of eyeball it in terms of that weight, but, like I started to say, the problem with that is that you kind of implicitly have different -- Because you're changing the selectivity, there's an implicit underlying different reference point, essentially, but to recalculate these reference points doesn't necessarily make sense, because we don't really know, A, what the weighting ratio of the discards to landings is going to be, and so we kind of just have to compare it to the existing reference points, even though they might not necessarily end up being what is -- What the future stock assessment says what those FMSYs should be, if that makes sense. Did I answer your question?

DR. CURTIS: Yes. Thanks.

DR. VINCENT: In previous ones, they had been in different units, and so, to try to make things easier to interpret and compare, I've put the landings and discards both in terms of thousand pounds whole weight, and, previously, they were in pounds and numbers of fish, and, if you want both of them in numbers of fish, I could potentially present that as well, but just let me know.

DR. REICHERT: I was thinking about that, Matt. I mean, if that's in the report, I think it would be -- Because of the issue that you just explained, I think it would be good to have them both, to look, you know, at the impact, because catching and discarding is generally done by numbers of fish, and, as you said, there's a big difference between the numbers and the biomass, and so I think that would be useful information. Thank you. Anyone else? There are two main action items for this agenda --

DR. COLLIER: Marcel, I had a question.

DR. REICHERT: Okay. Go ahead.

DR. COLLIER: Or a couple of questions, and I'm just wondering, when we're looking at how to estimate some of the discards, would it be useful to dig into some of the observer data that might be available for the commercial fishery and as well as for the recreational fishery, at least the headboat fishery, and I know there's information there where you could potentially look at the size of fish that are being caught on a trip and, you know, maybe get some information there on selectivity.

DR. VINCENT: So we have selectivity from the stock assessments for those minimum size limits, and so the selectivity itself I don't really think is the issue, because we have those. It's the weighting of relative proportion of the landings to the discards, and so I guess I didn't really explain what the different scenarios kind of underlying assume, and so, for using the time periods that are presented on the screen, essentially, you're assuming that the minimum size limit is what's causing the proportions of landings to discards to change over time.

Alternatively, you can make the assumption that it's the fishing effort itself that has changed, that would be the assumption where you would use the most recent fishing mortality across all three minimum size limits, and I can see arguments for either one. I guess I was actually leaning towards using the weighting using the most recent time periods for all three of the minimum size limits.

However, I noticed that, once you go to -- When you go to smaller size limits, it actually results in you having less landings, or even none, at the eleven-inch minimum size limit, and I think that kind of didn't make sense to me, when I was going over it this morning, and so that's why I've proposed these alternative strawmen, but, yes, it's -- You're making an assumption, and I'm not really sure which one to go with, and that's why we've presented it to the SSC.

We're presenting this for a strawman, but, if you want to switch to the other one, or come up with something else, I would be happy to do that, but I don't think the discards, or the observers, will provide that ratio of the landings to discards weighting, given that they're really only for the recent time period anyways, and we have that F from the assessment.

DR. REICHERT: Does that address your question, Chip?

DR. COLLIER: I guess. I mean, I'm just -- I would think that you would be able to get a ratio of landings to discards from a trip, and look at the distribution within there, and say, if we change our size limit, here's the new distribution, but I see Erik has his hand raised.

DR. REICHERT: Erik, go ahead to that point.

DR. WILLIAMS: Maybe this will clarify some of the difficulty that we're having, is that recognize that the ratio of landings to discards is not only dependent on your assumptions about selectivity, which is driven by the minimum size limit, but it's also driven by what the age structure looks like, and so this becomes the problem, is we have a certain age structure we're dealing with in the recent years, which is sort of an extreme case, because we're at historically low levels for this stock, compared to we're trying to then extract information on what that ratio of F might be from a different size limit, but that was computed during a period where the age structure was very different, and so this is the dilemma we're facing.

Then, when you add on top of that where you're trying to deal in absolute numbers of landed -- You know, numbers of fish, or pounds of fish, as Matt points out, a pound of discards is not the same as a pound of landings, and that difference between those two is also dependent on the current age structure, and so this is where it all just gets really wrapped around the axle and confusing, and we have to make some assumptions then about, you know, given the current age structure, what does that ratio look like under a minimum size limit that we haven't experienced right now in the recent time period, and what can we infer from the past, in terms of that effect.

Then sprinkle on top of that, you know, which we haven't even discussed, because this is all academic, in a sense, but there's the whole problem of the management action itself, once it's implemented, is not going to go the way we predicted, because there's going to be effort shifting, and there's going to be all kinds of other things happening, and so, not to -- I mean, just keep all of this is in mind, I guess is what I'm pointing out, is there's so much uncertainty in this, in guessing, you know, what the impact is going to be, in terms of the amount of discards and landings, and sprinkled on top of that is the uncertainty of the management action itself, in terms of the result in fishing behavior changes as a result of management, and so I don't know if that helps or actually confuses the problem.

DR. REICHERT: I guess it helps and confuses at the same time. Thanks, Erik. Chip, did you say you had a couple of questions, or was that your main one, and do you want to follow-up?

DR. COLLIER: Yes, I had a couple of questions. The other question I had is the approaches that are being used here for black sea bass -- Are they similar to approaches that were used up in the Northeast for summer flounder, when they were experiencing some of these same issues, and, if not, why are these approaches better or -- I don't know, and I'm just trying to make sure that we're having a good discussion here on the potential options that are being done, and, if it wasn't looked at, maybe an October discussion, that that could be incorporated into the presentation.

DR. VINCENT: What was this again? Where was this?

DR. COLLIER: Summer flounder, when they were talking about doing some of the allocation, and that is currently split. As opposed to landings and discards, it's split among sectors and then divided to the different component -- Or then it's split from the sector to the landings and discards.

DR. VINCENT: I will have to follow-up on that, because I'm not familiar with it.

DR. COLLIER: Okay. That's why I said maybe just include that as something to consider during the discussion for October, as we're talking background information.

DR. VINCENT: It could also be too that their discards might not be at the same level that ours are at, and so they don't exceed the threshold of the allocations, and so that is one difficulty that we encountered in ours, but I will follow up with looking into them and seeing what they did.

DR. COLLIER: Okay.

DR. REICHERT: Chip, a quick question for you. Remind me, and is that an offshore or mostly nearshore fishery, the flounder issue that you just mentioned? Do you know?

DR. COLLIER: Yes, and so the summer flounder is managed both by ASMFC as well as the Mid-Atlantic Fishery Management Council, and so it has an -- Almost like black sea bass, it has an offshore component and an inshore component.

DR. REICHERT: Okay. I was thinking the bycatch mortality may be less of an issue than for species like black sea bass, but thanks. I appreciate that. Thanks. You said you had another question?

DR. COLLIER: Yes, and I forgot to write it down, but my last comment was going to be on the whether or not to do the F 30, SPR 30 percent, or SPR 40 percent. The reason that we're requesting that is because this is going to be a management change that has to go through the NEPA process, and, therefore, we need to be able to compare the status quo alternative with an alternative that is going -- That is potentially being selected by the council, and so they need to know the differences between those two. It's similar to when we get a new stock assessment, and we also have a status quo of the previous OFL and ABC, and that is listed at least as an alternative, and then the council selects, based on recommendations from the SSC, a different value, and so we just need that for some of the NEPA development.

DR. REICHERT: Thanks, Chip. That was it?

DR. CURTIS: Marcel, this is Judd, and I just wanted to the discussion. What Chip mentioned in summer flounder in the Mid-Atlantic, the Mid-Atlantic just undertook a black sea bass assessment themselves, and that's the same approach that they used for their black sea bass stock assessment, was splitting that allocation of the ABC before subtracting the discards from the landings, and then coming up with ABCs for each of those.

As Matt mentioned though too, you know, the discards down here are much greater than what they're experiencing, as well as the status of the stock, and they've got a much healthier stock biomass than we do in the South Atlantic, but that approach in the summer flounder is being done with black sea bass in the Mid-Atlantic, and, Matt, we can touch base offline, to get some of those -- Any kind of questions you have on that, and some materials on things, and then, just before -- Well, I will let Erik go. He's got his hand up, before I move on.

DR. WILLIAMS: Thanks. Just to touch on the summer flounder, I mean, one issue to recognize there is that their recreational accountability measures for summer flounder includes discards, whereas we don't, and so this is one challenge that we always face, is, when discards are not monitored, we're sort of left inferring them, and they're sort of left open, in terms of the reaction to the management, and that gets to that effort shifting, and we just sort of guess at that, and then it's allowed to go, and it's not being accounted for, and it's not measured in the management, and so that causes problems, in terms of the accuracy of our projections, and so it's just an important difference to note for summer flounder.

DR. REICHERT: Thanks, Erik.

DR. CURTIS: Marcel, just --I don't see any more hands up for any other questions right now, and I guess I wanted to ask Matt, procedurally, what is the best way to move forward with recommendations from the SSC and what he needs, and so you've got the strawman slide up now, that we need to go through, and that differs from the action items that are in the overview, which are based on the presentation that you provided for the briefing book, and do we need to run through those questions that you posited, Matt, or do you feel like you've had those answered, or have you figured a pathway through for those, and you want to focus just on the strawman, or, if those questions have been answered, then I might recommend that we switch over to the overview, so that we can go through that list of questions that you had to progress on the projections.

DR. VINCENT: So those questions are essentially corresponding to the strawman, and so my idea was that the strawman would present what my -- Essentially what my current theory is, or my current hypothesis, for each of those questions, and so they correlate exactly with the discussion questions. They're essentially the same thing, but they're just a way to potentially answer these -- Or to inspire the discussion questions and to have them focused on what my current thinking is, and to see whether the SSC agrees with that strawman, instead of just focusing on the discussion, but I will leave it to the SSC which one they want to do, but, essentially, it's the same thing, in my mind.

DR. CURTIS: Okay. Maybe what you could do is then just bring up the questions slide, and go through that, and then flip back to the strawman slide, with your proposed approach, and then we can comment on those, one at a time, if that is amenable for the chair.

DR. REICHERT: Yes, that is fine with me. I just want to give you a heads-up that I'm having some technical difficulties here with my computer, and so I may have to log-off and then back in, but you will see that on the attendee list, but just as a heads-up, Judd.

DR. CURTIS: So Wally -- Heads up, Wally. Jie Cao has his hand raised.

DR. REICHERT: I'm still here, but I just want to give everyone a heads-up that, if that happens, then someone else may have to jump in. The first question is --

DR. REICHERT: Marcel, sorry, and we don't have the hand-raise thing up right now, but Jie has his hand up.

DR. REICHERT: Okay. Jie, go ahead.

DR. CAO: Thanks, Judd. Thanks. Marcel. I don't have any questions for Matt, but I just want to share a thought that I have right now with Matt and the group, and I was wondering -- I'm not sure, Matt, if you have looked at the predicted -- Sort of a quick approximation of the selectivity, and I was wondering if you had looked at the predicted landings, like all landings, predicted all landings, divided by the population predicted, the abundance, at-age, and you can do the same thing for discards, right, and you have all the discards, predicted discards, from the model, at-age, and you divide that by predicted abundance at-age, and that should give you some quick approximation to selectivity.

I was wondering if you can do the same thing to get a ratio between landings and discards, and you can pretty much do the same thing and get the ratio, and you have predicted discards at-age, and you have predicted landings at-age, and you simply calculate the ratio between those two, and you can get them like by year, and so you should have some information, in terms of model, assessment model, outputs on that, and I'm not sure if that would help, but that's just some thoughts to share with you.

DR. VINCENT: I'm going to need to think about that some more, or maybe follow-up with you offline, with what the intention is, but taking that from the stock assessment, essentially?

DR. CAO: Yes. The model predicted values, yes.

DR. VINCENT: Okay.

DR. REICHERT: Is this then something we should perhaps come back to at our October meeting, if it's relevant? Matt, what's your thought?

DR. VINCENT: I'm just trying to -- I don't think I quite conceptualize what he's proposing, and I'm just going to need more time to think about it.

DR. REICHERT: Okay.

DR. VINCENT: Sorry.

DR. REICHERT: No, that's perfectly fine. I mean, I just want to kind of put a placeholder there to come back to that in October, if it's a significant issue.

DR. VINCENT: I think I'll just follow-up with Jie in between then, and see if it is something that is, yes, worth pursuing.

DR. CURTIS: We've got Erik's hand raised, to that point.

DR. REICHERT: Erik.

DR. WILLIAMS: Thanks, Judd. Just to that point, I think -- I mean, it might help a little bit, but I think the issue is we are accurately sort of accounting for discards and landings in the current years in the model. The issue here is how do we modify that, and what does that modification do to that ratio, and that's where we don't really have data. That's the challenge here, and, like I said, it's under -- You know, the change in age structure will matter, and that's why you can look to the past only so far, but, if the age structure from the past is different enough from the current, then the assumption of using the selectivity, and its associated ratio of Fs, goes out the window, because the age structure is too different, and that is sort of the dilemma we're caught in.

Looking at the assessment doesn't necessarily help too much, because we're basically going into total forecasts, and guesswork, as to what is going to happen if we say change the minimum size limit, and what will happen to discards and landings, and part of that is also dependent on -- Which, again, we haven't really discussed much, but how that management is implemented, and so, in other words, if you're trying to reduce the total catch, how you do that totally impacts that ratio. If you do it through a time closure, that's different from if you do it through, you know, an area closure, or if you do it through a monitoring program where you reach a level and then you shut the fishery down, and whether you shut just black sea bass down, or you shut the whole snapper fishery, matters as well.

That's the challenge before us, is just trying to predict the management action that's actually going to be used, and also then what the effect of that is on selectivity as well as the ratio, the F ratio, between landings and discards. It's a formidable challenge, and that's the problem. It's a definite formidable challenge, and we just don't have enough data, where we've done these things with other fisheries say, and we can see sort of the reaction, you know, of management put in place, and then what is the reaction of the fishery, and we just don't have the data to tell us anything about that.

DR. REICHERT: Erik, to that point, I assume the potential change in size-at-age is then also a critical issue, because the minimum size obviously is applied to the size, and remind me, or Matt, and have we seen a change in size-at-age for this population, especially given the low abundance in recent years, and so it's not just a change in size structure, and isn't it also a potential change in size-at-age?

DR. VINCENT: I am trying to remember if I looked into that or not. I think I did look at mean length-at-age, and I don't think there was much of a change over time, but that isn't specifically modeled in the stock assessment, because we assume that growth is time invariant, but, yes, when I looked at mean length-at-age across the fishery-independent survey, I don't think I saw a huge change.

DR. REICHERT: But you looked at that over the entire time series, correct?

DR. VINCENT: Starting from when MARMAP started, and so in 1991, I think.

DR. REICHERT: Okay. All right. I need to think about that a little bit, because size-at-age is highly variable in black sea bass, but, yes, if there is no change, especially in recent years, when we saw that decline, that ongoing decline, that may be the period where a potential change in size-at-age -- But, anyway, I'm just thinking about that, and that may not be a critical issue, but that may further complicate an already complex picture, and, again, I did not mean to make things more complex than they already are, and so okay. Thanks for that. Any other hands?

DR. CURTIS: I have Jie.

DR. REICHERT: Go ahead, Jie.

DR. CAO: That was from the previous one. Sorry.

DR. REICHERT: Okay. Let's take a look at these discussion questions. Is using discard to landings selectivity weighting from 2019 to 2021 for all minimum size limits the best assumption? Any SSC members want to comment on that first question?

DR. VINCENT: I guess I should switch to the strawman, and so the one that corresponds to that, because I think the assumption that I'm leaning towards is using the weighting of the landings to discards for the time-specific ones, instead of the most recent one, and is the SSC okay with that assumption, or should I revert back to using the most recent time period, like I'm doing for the thirteen-inch?

DR. REICHERT: Can you remind us of the rationale behind that?

DR. VINCENT: So, for -- I guess, if I scroll up to looking at the different Fs for -- I'm in the wrong place. For using the recent F, using an eleven-inch size limit, essentially, it says that you can have no landings, and that didn't quite make sense to me, and so that's kind of why I switched my hypothesis to using the most recent one, or using the 2007 to 2008 weighting, instead of the most recent weighting, and it kind of makes the assumption that your ratio of discards to landings is influenced by the size limit, whereas the most recent weighting assumes that it's based on the current fishing effort, essentially, of -- That's kind of how I'm conceptualizing the two differences, but maybe that's inaccurate. I don't know.

Like Erik says, maybe it's sort of based on the age composition, and the current population at-age as well, and so I could go either way, but that assumption, because it makes such a big difference, it seems important to discuss it.

DR. REICHERT: Any comments, or recommendations, from the SSC? I would like to hear from some members relative to this question. I'm still trying to wrap my head around it, but it seems like a reasonable assumption.

DR. VINCENT: I think the problem is that both of them are reasonable assumptions, and so there isn't --

DR. REICHERT: Yes, but you also said that, and correct me if I'm wrong, that the outcome was very different.

DR. VINCENT: Yes.

DR. CURTIS: Marcel, I've got Jeff and then Jim.

DR. REICHERT: Jeff, go ahead.

DR. BUCKEL: I will comment on the approaches next, but, first, just again, just given where this stock is, lowering the size limit just doesn't -- You know, I understand that it's trying to move fish from discards into landings, but, at this point, putting some measures in place to try to rebuild things first, and then, secondarily, you know, deal with the discards to landings, and allocations, but, in terms of these projections, to Erik's point, using those older time periods, when there were more younger and smaller fish around, doesn't seem appropriate, right, because we're in a period now where we've had this long-term low recruitment, and so those younger, smaller fish are not as abundant as they were in the past, and so the recent data seem to be more appropriate, to me, and it sounds like effort is -- Matt mentioned something about effort, and I think we're in a situation where we have the effort that we have, and so I think there were two different things being discussed.

One was the selectivity, and then there was also the point about the effort in the recent time period, if I understood correctly, and so just two points, but I guess the first is the idea of lowering the size limit, at this point, just doesn't -- It doesn't make sense at the higher -- At the bigger-picture level.

DR. VINCENT: So you're saying that the result that -- With the lowering of the size limit, with the F going to zero, it make sense to you, or just that -- I guess I kind of agree with that, but so you're proposing to knock out the strawman and replace it with the recent 2019 to 2021?

DR. BUCKEL: Yes. I think, if I'm understanding things correctly, yes, Matt.

DR. VINCENT: Okay.

DR. REICHERT: Jeff, those were your questions, before I go to Jim, and then we can come back to that recommendation in a little bit?

DR. BUCKEL: Yes, Marcel. I was just addressing that one question, yes.

DR. REICHERT: Okay. Jim, go ahead.

MR. GARTLAND: I can make my comment quick, because Jeff pretty much just covered both of the things that I was going to say, and so I totally agree with his first comment about having reservations about a lower minimum size, when you have a stock that you're already struggling with a little bit, and then, again, in terms of the time period in use, to me, it would make the most sense to use the most recent time period, because I think that's the most reflective of now.

However, I can see an argument for the earlier time period. Because it was based on the eleven-inch size, that might be more reflective of fishing behavior. Is there any way to kind of -- Again, I'm not trying to overload you with work, but almost like a why not both? Like present both of them, and we kind of lean toward -- We think we have more faith in the more recent data. However, there could be some value of looking at the strawman as well. If that's just too much, I would say go with the more recent.

DR. REICHERT: Matt?

DR. VINCENT: I mean, I can present both of them, and do the -- Like I've already run both scenarios, and I think it just might overwhelm the council, and that's my concern, is that you present them with too many scenarios, and they might say just send it back to the SSC and say, well, which one is more likely, and go with that one, but I can -- I've run both of the scenarios, and so I could present all of them, if that's what you want, but I have a feeling that it might even overwhelm you guys, just because it's -- It's, what, six different scenarios, and then more than that, and so I'm okay with presenting all of them, if that's what the SSC decides.

MR. GARTLAND: I apologize, and I might have misunderstood. I was thinking that it would come back to us to look at again before it went to the council, and I certainly wasn't trying to recommend that the council see, you know, every option under the sun, because I agree with you that it probably would overwhelm us to start, and it might be tougher even down the line, and so, yes, if that's the case, then I think the more recent is probably a better way to go, only because it's based on more recent information, but, if we get to see it again, I think why not both would be kind of cool.

DR. VINCENT: Sorry, and you will get to see it again in October, before it goes to the council, but then I also had the thought that -- So that's just six scenarios, and then you multiply that by the two different recruitment, and so that's twelve scenarios that you have to look at, just for that one bullet point, and then you have four other bullet points that you're looking at, and so, if you want a really long report, I can do it, and it's not that big of a deal, because they've already been run, essentially, and it will just be a really long report, with lots to go through.

MR. GARTLAND: No, that's fair, and I didn't do the math all the way out, just like you just did, and that make sense. Then my inclination would be to follow Jeff's recommendation and go with the more recent.

DR. REICHERT: Thanks, Jim. I agree with that. I think we just need to make sure, in our report, that we have a good justification for that, because, as Matt said, and we all agree, the outcome of these different scenarios are -- They are significantly different, and so, unless anyone has any objections, let's request the most recent period.

DR. CURTIS: Marcel, I've got two hands. I've got Amy and then Wally.

DR. REICHERT: Okay. Amy, go ahead.

DR. SCHUELLER: I don't have any issues with the recommendation. I was, I guess, waiting to see how the discussion with what Jim suggested played out, because my comment back to Jim was

we could look at tons of options, but how are we going to pick, and so I prefer to just select options based on the most appropriate assumptions, where possible, and limit what's being presented.

DR. REICHERT: Thank you. I agree. That was it, Amy?

DR. SCHUELLER: Yes, that's it. I'm fine with the recommendation that Jeff placed on the table.

DR. REICHERT: Okay. Thank you. Remind me, Judd, who else had their hands up?

DR. CURTIS: Wally has his hand up.

DR. REICHERT: Wally, go ahead.

DR. BUBLEY: So I'm in the same boat as well, and I was just kind of curious about -- So all the discussions have talked about how age structure potentially, or effort, could affect this, and so it seems to make the most sense to use the most recent data, because those are the most closely aligned to what would happen in the future, and so I'm not adding anything to this conversation other than agreeing.

DR. REICHERT: Thank you. Any other hands raised, Judd?

DR. CURTIS: No other hands.

DR. REICHERT: Okay, and so then that will be our recommendation, and we will reflect that in our report, and, as I said, I would like everyone to please think about the justification for that recommendation, so we can add that to our report. Can you go back to your strawman slide? Does that include the comment around Number 2?

DR. VINCENT: I assume that -- Yes, that makes sense.

DR. REICHERT: Okay.

DR. VINCENT: That's what I am proposing, is to use that 2019 to 2021, and not try to complicate things anymore.

DR. REICHERT: Okay.

DR. VINCENT: I assume that's what the SSC will agree on, given the comments about the proportions.

DR. REICHERT: Okay, and so I'm asking the SSC. Anyone who disagrees, show your hand and provide comments, and, unless I hear something from you, Judd, I assume there is no hands raised. Then, for Number 3, for closed season scenario, multiply recent recreational landings F by seasonal proportion and discard mortality and add to discard F and then solve for the new rebuilding F.

We talked a little bit about discard mortality and the closed season scenario. I mentioned, earlier, that, you know, whether or not it's going to be for the -- I think it's critical if that's going to be for federal waters only or for the entire South Atlantic, and then, as you mentioned, Matt, whether that

closed season scenario will be true for all bottom fisheries or just for black sea bass, because, again, that drastically -- I assume that drastically changes the discards and the discard mortality. If fishing continues to occur, if general bottom fishing continues to occur, then we'll continue to have discard mortality. Any comments, or discussion, by SSC members relative to Number 3, or any comments from you, Matt, relative to this?

DR. VINCENT: I guess my question would -- I guess my question is probably directed towards the council, or council staff, about what the actual proposed closed season is, and see if they have an answer of whether it is for federal waters, or if it's just for black sea bass, or for all species, and if they have any ideas of what that closed season proposal is. Then, from that, I think we can potentially have a more informed discussion about what the assumptions related to that would be.

DR. REICHERT: Thanks, Matt. Judd, Chip, or Carolyn, any thoughts, or comments, or Trish?

DR. CURTIS: We also have Shep, Shep Grimes, and Mike Schmidtke online that have their hands raised, and so I'll let them talk first. I'll go with Mike.

DR. SCHMIDTKE: Thanks, Chip. What the council discussed at their last meeting, as far as the closure scenario, is so they would only have jurisdiction over federal waters, and so the assumption of federal waters only would be kind of the first order type of thing, and that's the only thing that the council would be able to control at this stage.

Then the second portion, as far as the timing, they were talking about, and I think it was presented earlier in the presentation, Wave 1 and Wave 2, and they were talking about aligning the potential of a black sea bass closure with the time that shallow-water grouper species are closed, and so there's a group of species that already have a closure during that first part of the year, through the end of April, and they're talking about adding black sea bass to that group that is already closed, but it would be the addition of only black sea bass to an already existing closure for several species, but it would not be necessarily a closure of all the rest of the species that are open at that time period. It does kind of gather at least an area where there are a large number of species that are closed to fishing, and black sea bass would be added to that portion, if that makes sense.

DR. VINCENT: So there would still be hooks in the water, potentially.

DR. SCHMIDTKE: There would still be hooks in the water, but they -- I guess we would have to look at the effort data, to see -- I'm not sure if we have any spatial effort data to really give an indication of whether the hooks in the water are lower in the shallow-water grouper areas, because that's the time period that they would be -- That's the time period when the hooks would potentially be out of the water, because shallow-water grouper are closed, and so they would be added into that portion, but, yes, there would still be hooks in the water, potentially somewhere, in the South Atlantic.

DR. REICHERT: Well, because -- Because there is a number of species that are still open.

DR. SCHMIDTKE: Right.

DR. REICHERT: Like vermilion and --

DR. SCHMIDTKE: Right, and so it wouldn't be a removal of hooks from the water, but it would be putting them in with a group where there's potentially reduced effort, because grouper are not open at that time of year.

DR. REICHERT: Let me ask you, Matt, a question, or anyone. Do we have sufficient information to include that in any projections, relative to discards and discard mortality?

DR. VINCENT: I'm thinking. Sorry.

DR. REICHERT: No, that's okay. I'm thinking too.

DR. VINCENT: Can you repeat the question, or reframe the question?

DR. REICHERT: Well, you know, as Mike said, fishing will continue, and it's just that black sea bass will be effectively added to the shallow-water grouper closure, but that still means there's still fishing going on, and do we have sufficient information, relative to bycatch and bycatch mortality, to include that in your projections under that management scenario?

DR. VINCENT: I mean, under that, I think what we could do would be to essentially just turn what would have been landings during that time period into discards, which I think is the opposite of what they're hoping that the closed season will do, but I think that's a reasonable assumption.

DR. REICHERT: Okay. I just wanted to --

DR. VINCENT: But, yes, we do have a discard mortality rate, and we can separate out the different seasons, based on the proportions in the recent time periods, and so, yes, we could do some calculations, but the results won't be what the council is hoping for.

DR. REICHERT: Yes, but, from what I understand from Mike, this is one of the potential management scenarios, and so correct me if I'm wrong, but it would be good to have projections that show the effect of that management scenario, correct? That's basically what you were asking earlier.

DR. CURTIS: Marcel, I have Erik with his hand raised.

DR. REICHERT: Erik, go ahead.

DR. WILLIAMS: To that point, and so this circles back to the crux of the problem, is what we're trying to do is predict the fishing behavior response to a regulation, right, and I think Matt outlined one answer to that, is, well, assume that it's not going to affect current effort at all, and that anything that was landed during that period is just going to be converted to discards. I think that's probably a reasonable assumption, because what we would be basing that on is data that we have from landings and discards of black sea bass during this shallow-water grouper closure that's been in place for many years.

The question, to ourselves, is the addition of black sea bass to that group -- Is that going to modify fishing behavior enough, or in some significant way, to cause a reduction in fishing effort during that period, just by adding black sea bass to an already existing regulation that's been in place for

many years? That's the question to ourselves, I think, and that sort of gets back to, you know, this is the challenge that we always have with these things, is you have to -- We're basically trying to predict human behavior.

We're trying to predict fishing behavior, or response, to a management action, and it doesn't always go the way we might think sometimes, and we have to be careful about what those assumptions are, and at least state them upfront, so that we can maybe, in hindsight, find out that we were wrong, maybe, and correct that, or add to our sort of knowledge of fishing behavior response to management actions, because that's a database, and that's a sort of information set that we have very little information on, or at least we don't spend a lot of time analyzing that, and so the --

DR. REICHERT: I agree, but, if we make these assumptions, and list the caveats -- Yes, I -- Anyone else? I thought, Judd, that there was someone else who had a hand up earlier to that point.

DR. CURTIS: It must be down now, but Genny has her hand up.

DR. REICHERT: Genny, go ahead.

DR. NESSLAGE: Thanks, Marcel. To Erik's point, I agree that we have no idea how fishers, anglers, will respond to these types of management actions. The best we can do is use the data in hand in recent years. That being said, I think our report should encourage the council to select the most conservative option on the table, once all the projections are there, just because there is so much uncertainty in what's going to happen, and this stock is in very poor condition, considering the lack of recruitment, and so that's just a general statement that I think I would feel comfortable making, and I would love to hear from the rest of the SSC, at some point, about that. Thanks, Marcel.

DR. REICHERT: Thanks, Genny. Yes, and any other members to that point?

DR. CURTIS: Mike Schmidtke has his hand raised.

DR. REICHERT: Mike, go ahead.

DR. SCHMIDTKE: Just kind of with Erik's discussion about the assumptions that would potentially go along with -- You know, the assumptions about fishing behavior that would go along with these projections, the assumption of kind of effort remaining the same, and, you know, landings, or discards, being converted based on what's allowed in the fishery, but effort is going to remain the same, that is kind of what the council was thinking. I heard the discussion, and the concerns, about the changes in the minimum size limit.

Along that line of thinking, if fishing effort doesn't change, there's going to be a very large reduction in F, and much of that F comes -- There's going to be a very large reduction in the number of fish that are taken out of the population, and much of that is coming out as discards in the current projections, and so the council, in coming up with the lowering of the minimum size limit, was trying to get more efficient fishing of the already lowered amount of fish that they're going to have in that pot, with, along that lines, the assumption that, if the effort stays the same, then they're going to be catching the same amount of fish, and they could potentially switch

discards into landings, because that effort is not changing one way or the other, and that would be the assumption that goes along with that, but, like Erik pointed out, those assumptions are critical, and it depends on how the fishery responds in that type of manner to these different scenarios, but that's what the council --

That's what their discussion indicated in the previous meeting, was the idea that, if fishing effort doesn't change, then there's still like this set amount of fish that is being removed from the population by discards, plus landings, and, if they change that size limit, then more of that could potentially be in the form of landings, rather than discards.

DR. REICHERT: Any comments?

DR. CURTIS: Marcel, I have Genny and then Jeff.

DR. REICHERT: Genny, go ahead.

DR. NESSLAGE: Thanks. The council is spot on. Effort needs to be reduced, in order to impact this fishery and the impact it has on the stock, and I don't think we should need to remind them that, when they're landed, they are dead, 100 percent, but at least, if they're discarded, they have a chance to survive, and so this, I think, is going in the wrong direction. Thank you.

DR. REICHERT: Thanks, Genny. Jeff was next.

DR. BUCKEL: Thanks, Marcel. I agree with Genny's most recent comment, and I was just going to point out that, last year, in 2023, the MRIP numbers were 6.5 million live releases, and they harvested 304,000, and so, when you look at the ABC that we presented in March, these numbers are drastically different. You can't -- If you're going to move some of the release to harvest, it's just -- The numbers don't add up, and you're going to be way over the ABC, and so, you know, these numbers are so high, of the amount that are released, that moving some over doesn't solve the problem. As we mentioned in March, we need effort reduction to reduce the numbers of both the harvest and the live releases. Then Genny made a point, several minutes ago, about going with the most conservative projection, and I agree with that, given the issues that she mentioned.

DR. REICHERT: Thank you, Jeff.

DR. COLLIER: Marcel, one thing I think would be good to point out in the report is the need to know how targeting is occurring for the black sea bass fishery, or maybe for the snapper grouper fishery in general, and it seems like -- There's no indication that we have information on targeting for black sea bass and changing from a single fish, or three-fish, bag limit would have -- We don't know what that impact would do, making -- Would that cause a trip not to go, or is that going to be just a discard, and so, to me, it seems like we actually would have -- There might be some research recommendations coming out of this, and, you know, don't think these conversations aren't great.

These are great conversations to have. It informs the council on what management options might be feasible for rebuilding the stock, and so please speak up and talk about all these things, why you don't think something is reasonable. All of this discussion helps the council make a decision at the end.

DR. REICHERT: Thanks, Chip. I was thinking also about that, because, in terms of the whole discard mortality, on top of that, you know, in red snapper, and a bunch of other species, the use of descending devices has been discussed, and I know, again, black sea bass is generally a more shallow-water fishery, and so the effect of using descending devices may not be as significant as some of the more deepwater species, but, Matt, I assume that you guys have not changed the discard mortality rate, although, you know, one of the objectives of the council, when they were discussing the descending devices, was to lower the discard mortality rate, for a variety of species, and I assume including black sea bass, and so I assume that, for the discard mortality, you basically have one scenario where discard mortality doesn't change over time in your projections.

DR. VINCENT: That is correct. We did not make any assumptions that things change.

DR. REICHERT: Thanks, Matt. Again, talking about the myriad of uncertainties in these projections, you know, it would be good to add that one, in terms of potentially affecting projections, and I just wanted to make that point. Any -- I agree that, given the -- I think, as an SSC, we really need to make sure that, in our report for this meeting, but I think it's even more important in our October meeting, to lay out all these uncertainties, and we know that projections are generally uncertain, especially the further you get into the future, but I think this is probably critical for us to lay them out very clearly, to assist the council in making their ultimate management decisions. Any other comments, or questions, or discussion, relative to this point?

DR. CURTIS: Marcel, I have Jennifer Sweeney-Tookes, then Steve Turner, and then Anne Markwith.

DR. REICHERT: Okay. Jennifer, go ahead.

DR. SWEENEY-TOOKES: I just wanted to emphasize Erik's concern earlier about we're really trying to predict behaviors, and data is lacking, of course, but I will say that, as part of other projects across the whole region, something that's come up repeatedly is that charter, in particular for-hire, is not going to stop fishing. They're going to try to shift effort, and, if they're really being inundated by something they can't keep, they will move, you know, geographically slightly, but that's something that has come up over and over, is that we can't assume that there's going to be a cease in effort, because that's probably not going to happen.

DR. REICHERT: Thanks. I appreciate that. Steve.

DR. TURNER: I agree that it's best to use the current population structure, and fishing mortality structure, for looking into the future. I've been thinking about how to present to the council what has been described as an illogical result of reducing the size limit, but still everything ended up -- All mortality ends up in discards, and there is no ability to land fish, given the structure, and so my guess is, if we project with the current minimum size, we get that same result, that, whatever the minimum size is, thirteen or fourteen inches -- I guess we get the same result, but there would be no landings, and so then I think you could present, to the council, that, even if we drop to eleven inches, we still get no landings. The real message here is the population is in terrible shape, and discard mortality, discard numbers, are far too high. Anyway, thank you.

DR. REICHERT: Thanks, Steve. I appreciate that. Anne.

MS. MARKWITH: I just wanted to add to sort of the uncertainties surrounding the closed season scenario, and it really has to do with if the intention of the council is -- Well, it's not necessarily the intention, but the only control they have is over federal waters, and some states mirror the federal regulations, and like, in North Carolina, we mirror whatever the council does, but other states may or may not, and so that can add even more uncertainty to the projections, depending on how they're set up, and so I just wanted to -- If people weren't aware, I wanted to make people aware of that.

DR. REICHERT: Thanks, Anne. I appreciate that. Yes, I completely agree, and I think that's -- I think I mentioned earlier that I think that's critical, because, you know, in terms of the overall effect of the population, what the ultimate management effect is on the overall population if some states -- If the management, the regulations, are different than those in federal waters, and so thank you for that, and I think, again, it would be good to state that as one of the uncertainties in our report. I am making a couple of notes here. Anyone else?

I am not hearing any hands raised, and so let's move to the fourth item here, do not perform projections for scenario with subtract out discard mortality from allocation and show that recreational discards alone exceed allocation for sector. Matt, I think that makes perfect sense, but I would like to hear from other members. Any hands raised? Does anyone disagree with that? Judd, no hand raised?

DR. CURTIS: I am not seeing any hands raised, and I have no opinion.

DR. COLLIER: Wally and Shep have their hands raised.

DR. REICHERT: Okay. Wally, go ahead.

DR. BUBLEY: I think this is one that makes a lot of sense, just because seeing that almost all of the discards that Matt's been looking into are coming from the recreational sector, that just -- It doesn't make sense to run that scenario, because it's -- We already know the outcome. All those discards are going to swamp whatever that allocation was anyway.

DR. REICHERT: Shep, thanks for joining us today. Go ahead.

MR. GRIMES: I have a question, and not a comment or anything, but I was just -- My understanding is what the council is asking for is they want an ABC -- They want a total ABC that includes discards, and then they want to apply the allocation to that total ABC, and then each sector then has to account for their own discards, and so that would be a total ABC, and the commercial sector then would end up with an ABC, and you subtract out what we estimate the discards for that sector would be, and then you would give the recreational sector what it's expected to get, with its discards subtracted out, and so I guess I don't understand the point that it exceeds the allocation for the sector, because the allocation would be an allocation of the total ABC that included the discards. Thank you.

DR. REICHERT: Thanks, Shep. Good point, and I think -- Matt, correct me if I'm wrong, but what you have here is basically what happens in the projections.

DR. VINCENT: Yes, and so the idea is, if you take -- If you calculate a total ABC, based on the current selectivity, and then you allocate, or you try to separate the -- If the discards end up being more than 50 percent of your weight of your TAC or whatever, then you would end up -- Since nearly 100 percent of your discards are from your recreational fishery, in that scenario, you would have a negative allocation for your recreational fishery, essentially, because you're taking out more than what you're allocated, and so -- You can't project a negative allocation, and so, essentially, you would just end up having -- You would overfish, and just crash the population, and it doesn't seem like a reasonable scenario to do, because you have exceeded the allocation. You have exceeded what you're allotting to the recreational, based on the TAC, once you take out that discard from the recreational, if that makes sense.

DR. REICHERT: Shep, does that address your concern, or does that still stand?

MR. GRIMES: Well, yes, I think it does, but I would like to ask a follow-up, or at least for clarification then, and so what you're saying is that, you know, if you -- The discards -- The recreational component sector discards so much that there's no way -- You know, if you had that total ABC, right, and then you allocated it based on what the allocations were, the recreational sector would discard more than its total -- Then its sector ABC, right, which is going to then eat into some of the commercial, and so you would effectively have, you know, no recreational fishing, and that would still eat into some of the discards that we would expect to occur, or some of the landings maybe that you would expect to occur, in the commercial sector.

DR. VINCENT: Yes, and I will have to double-check the calculations, but I'm pretty sure that that's what happens.

MR. GRIMES: I think that's a really important point to convey to the council, and so however the report -- I think that's critical information, in my perspective. Thank you.

DR. REICHERT: Matt, I agree. I'm not sure if that's specifically in your current report. We can certainly make that point in our report, but I think it would be useful to make that point, or clarify that, in your report, if that's at all possible.

DR. VINCENT: Okay. Yes, I will do some calculations and add it to the slide and send it when I send out the revised version.

DR. REICHERT: Okay. I appreciate that.

DR. COLLIER: Given the council's discussion about this, you know, it might be good to inform them of what the allocation might need to be in order to have some sort of commercial fishery.

DR. REICHERT: Okay. Chip, was that a question, or a comment, to Matt, or the SSC, or both?

DR. COLLIER: I guess to Matt.

DR. REICHERT: Okay.

DR. VINCENT: I mean, essentially, can't you calculate it from -- I mean, I would calculate it from what the current landings in the projections scenarios are, and the landings are, what, like

less than -- I will have to look at the table, but it's real small, right, compared to what your discards are, and I think it's less than 10 percent, and so, I mean, essentially, I can do that calculation, and you would make the assumption that it could all go to commercial, but is that what you're requesting?

DR. COLLIER: I think it would help inform some of the discussion at the council table on what we're looking at when we begin to incorporate discards into these scenarios. You know, this is the first time that our council is looking at it, and having additional information I think is extremely valuable here.

DR. VINCENT: Okay. I can do that.

DR. REICHERT: Chip, so this is all going to the council in their December meeting, I assume?

DR. COLLIER: There will be some presentation at the September meeting, but we're hoping to get ABCs provided to the council, at least final ABCs provided to the council, in December.

DR. REICHERT: Okay. Thanks. Those were the four questions, and, Matt, you mentioned earlier that they're basically similar to the ones in our actions. Unless there are any other comments, what I would like to propose is -- Judd, let me know if you have other suggestions, but to maybe show the SSC -- I'm not sure if you made some notes, but show the SSC some notes. Otherwise, we can come back to that at the end of the meeting, in terms of our recommendations, and I don't want to put you on the spot, because normally we can see, on the other screen, what notes you have made, but maybe quickly go through those, before we go to our next agenda item, if that's okay with you, but, before we do that, I would like to propose a five-minute break. Judd, is that okay with you, or would you like to wait with reviewing some of our notes with reviewing some of our notes later this afternoon?

DR. CURTIS: Marcel, Jeff has his hand up.

DR. REICHERT: Jeff, go ahead.

DR. BUCKEL: This is back to the point we were talking about before, Marcel, and so sorry to derail your --

DR. REICHERT: Go ahead.

DR. BUCKEL: It's a point that's been mentioned before, and I just wanted to reiterate it for Matt, when he's presenting the ABC allocation, but to hit on -- To remind the council that, you know, if you present it as discards and landing biomass, that those are -- To also present the numbers of fish, right, the unequal biomass of discards versus landings, and it ends up with different numbers of fish, because those discard fish are smaller, and so some slide to make that point I think is important as well. Thanks.

DR. REICHERT: I completely agree, and so let's make sure that we put that in our report. Judd, back to my original -- Thank you, and I see your notes. Let's take a five-minute break. If you're back, maybe you can raise your hands, and then we know that everyone is back after our break. We'll see all of you back in about five minutes. Thank you.

(Whereupon, a recess was taken.)

DR. REICHERT: Okay. Let's take a look at the notes we have. Okay. I think that kind of captures -- I made some other notes, and one of the recommendations I have is perhaps add, under these action items, kind of a list of uncertainties, and concerns, that we discussed. Judd, maybe under the action items list them, or it doesn't really matter where we put them, but a couple of the ones that I made note of was the uncertainty of management actions for federal waters only, if the state-water -- If regulations in state waters would be different, what is the impact on the black sea bass populations, especially since it's mostly shallow-water fishery, and the question we had of whether we have information of the proportion of landings or the fishery in state waters, relative to federal waters, for black sea bass.

DR. COLLIER: Marcel, we had provided a document to the council, at the June council meeting, on proportion of shore-based landings, within three miles, and then greater than three miles, according to the MRIP data, but we didn't -- I haven't looked at headboat data yet, but I will dig into that, and then we're also going to provide Matt with information on which states have different black sea bass regulations. Some states have it codified, and so it wouldn't change, but we can get that to Matt, and then also provide it to the SSC for their discussion in October.

DR. REICHERT: That would be very helpful. Do you guys have any information on private boat?

DR. COLLIER: Yes, and the private boat -- That's what I was referring to, as far as having information. For the private and charter boats, we would have information on inshore, or shore-based, landings, less than three miles, and greater than three miles.

DR. REICHERT: Okay. Thank you. I think that would be very helpful. The other note I had was the reproductive parameters were similar, or did not change, and, given the changes in the population, there may have been some changes in size effects on reproduction that we may not know, or there may be some information from the fishery-independent survey on that. If that's -- If that hasn't really changed, then that would be good to know.

Judd, let me know if this is useful to have in that report, but Jeff requested that kind of overview of how we got here, and I'm not sure whether that needs to be in the report, because you already said that you would provide that for our October meeting, but let me know if you feel that that would be good to have in the report.

DR. CURTIS: I will make a note of it here, as a bullet, just as a reminder to myself and so it's on the record.

DR. REICHERT: Yes. Another uncertainty that we discussed, that Erik brought up, was the age structure, and the potential changes in age structure, and that is very influential on the projections, and so that's another uncertainty that we discussed. I am just scrolling through my notes here, and the effect of the use of descending devices on the bycatch mortality. Currently, the bycatch mortality rate is kept constant.

Another note I made was the point that I believe Jennifer and Erik made in terms of change in fishing behavior to management regulations. When fishing is closed, does that modify fishing behavior? Genny I think brought that up too.

DR. COLLIER: Judd, can you scroll up the hands-raised document? There you go.

DR. REICHERT: Then I had a question for Matt, before we go to Wally and Christina. You said, in the beginning of your presentation, that you did not include the projections with recent recruitment, and I assume that that is something that you will provide at our October meeting, or did we discuss that earlier? I forgot. Is Matt still on, or anyone else?

DR. VINCENT: Yes, I can provide both the long-term average and the recent average, recent mean recruitment scenarios, for those that we discussed. Yes, that's not a problem.

DR. REICHERT: Okay, because that may be part of a conversation to have in October, and so we'll -- Thanks. I appreciate that. I think those were most of my notes, and I probably forgot a few. Chip, I think you mentioned that we need -- For the council, we need the comparison between the SPR 30 and 40, correct?

DR. COLLIER: That's correct.

DR. REICHERT: Okay. That would be good to add too. That's not an uncertainty, but that's just something that the SSC and the council would need, and we could probably move that to another spot, but we can keep it here for now, Judd. I may find some other notes that I made, but, Wally, go ahead.

DR. BUBLEY: Just to clarify one of these bullet points, the uncertainty in the age structure through the time series, and it's not the uncertainty of the age structure, per se, and it's the uncertainty of the change in age structure of the population and the effect that it would have on landings of these different size limits or discards.

DR. REICHERT: Thank you. That's an excellent point. Anything else, Wally?

DR. BUBLEY: That was it.

DR. REICHERT: Thanks. Christina.

DR. CURTIS: Christina, it's showing that you're unmuted, but we can't hear you.

DR. REICHERT: Is Christina back on, or does she have issues, technical issues?

DR. COLLIER: Christina, if you click on the audio, and then click on no audio, and then go back to computer audio, sometimes that will clear issues up.

DR. REICHERT: If that doesn't work, Christina, maybe you can put your question in the chat.

DR. REICHERT: Okay. While we are trying to resolve that issue, Steve, go ahead.

DR. TURNER: Uncertainty in the change in age structure, I would say uncertainty in the projected age structure and not -- I would drop "through the time series", and it's really the projected age structure that we don't -- That we have uncertainty about.

DR. REICHERT: That's true, but it's also -- We have some information relative to the most recent age structure relative to the age structure earlier in the series, but we can wordsmith this later, but I agree with you, and I would say -- Yes. That was it, Steve?

DR. TURNER: Yes.

DR. REICHERT: Okay. Thank you. Wally.

DR. BUBLEY: I actually just left my hand up accidentally, but this is okay, because it gets back to this point again, and it's not really the uncertainty in the age structure, and it's -- Because we have those data available for the time leading up to present. The issue is the uncertainty and how that change in age structure affects the landings and the discards, and so this is something that we can wordsmith out, and I'm more than happy to get my point there, but, again, I accidentally left my hand up, but apparently it worked out, and so thank you.

DR. REICHERT: I agree, and it's the age structure that creates the uncertainty and not the uncertainty in the age structure.

MS. PACKAGE-WARD: Can you all hear me now?

DR. REICHERT: Yes, Christina.

MS. PACKAGE-WARD: So sorry about that. I don't know what it was doing, but I think it finally --

DR. REICHERT: Go ahead.

MS. PACKAGE-WARD: I was just going to say, regarding the item about fishing behavior, and I don't know if we want to specify that -- I think what we really want to know is whether adding black sea bass to that other shallow-water grouper closure would impact effort or not, or at least that's what I'm understanding.

DR. REICHERT: I think that would be a good addition. Thank you. Anything else, Christina?

MS. PACKAGE-WARD: No. That's all. Thank you.

DR. REICHERT: Okay. Thank you. Matt, I saw your hand is up.

DR. VINCENT: Sorry. That was just to get unmuted.

DR. REICHERT: Okay. Anyone else relative to notes? As I said, we can come back to this later today, and also once everyone reviews our notes. Mike, I see you have your hand up.

DR. SCHMIDTKE: I just wanted to ask a question, and it's along the lines of the fishing behavior, as well as the size limits, and it took me a minute to kind of order my thoughts and try to better capture what the council was trying to discuss at their last meeting. I guess how would the SSC interpret the nature of discards to potentially affect fishing behavior, and I mean that in the sense, for black sea bass, based on the fishery performance report, and conversations with the black sea bass recreational fishermen, that they're generally not discarding due to limiting out and then continuing to fish and catch these fish as bycatch, and they're generally discarding due to catching undersized fish.

If that is the scenario, if that is -- We can look at, you know, recreational data, to kind of verify, you know, what the case may be, but, if that's the scenario, and a lower minimum size limit were to lead them to limit out quicker, and catch fewer undersized fish along the way, because they would be keeping at a lower size, they limit out, and then, if there were the assumption that they would move on from a fish that they had limited out on, would that be an unreasonable assumption, or would that be unlikely for this type of fishery, and I guess possibly some discussion about, you know, the fact that not all discards are discarded for the same reason, and we have a scenario, for black sea bass, where they seem to be discarding due to the size limit, more so than to the bag limit.

DR. REICHERT: I agree. Of course, there is the issue of high-grading, and do fishermen, if they know they're going to catch potentially larger fish, do they discard what now may become legal fish, in the hopes to get -- To keep larger fish? That's all under the umbrella of, you know, fishing behavior. You said we have some information relative to that, other than, you know, currently, they're keeping, or discarding, fish based on size limits and not other motivations.

DR. SCHMIDTKE: That's been anecdotal information, and I can pull that from the fishery performance report, but that's based on what the fishermen are telling us, that they're discarding fish because they're catching them and they're undersized.

DR. REICHERT: I agree, but, if we lower -- Do we have any -- I'm afraid that I know the answer, but do you have any information -- If we would lower the size limit for black sea bass, whether that would change the behavior, and I'm afraid we just don't simply know that information, but I think that would be perhaps significant to list under the, you know, information on fishing behavior and a source of potential uncertainty. Anyone have any thoughts to that point? Okay.
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Anything -- Any information that we may have, beyond, you know, the anecdotal information, would be really helpful, but I also realize that's the type of information that is generally relatively difficult to get to. Any other comments, or additions, to the report, and not just relative to the uncertainty, but to some of the other points?

DR. CURTIS: Marcel, I will scroll down here, and I've tried to capture some of the general discussion around the table on uncertainties under this action item here, and so please amend as you see fit.

DR. REICHERT: A question for Matt. Would it be -- Do you have a good idea of what projections we are requesting, or do you need a list of projections in our report? We discussed several scenarios. Matt, I would like a little bit of your feedback here. How specific do we need to be?

DR. VINCENT: Well, I could -- Do you want me to list the scenarios that I'm intending on presenting? Would that be useful?

DR. REICHERT: Yes, because either -- Either we provide a list in our report or --

DR. VINCENT: So I was planning on doing the minimum size limit of eleven inches, twelve inches, and thirteen inches, and then doing the closed season scenario, and then doing the ABC, or like the gradual phase-in of the ABC, and I will have to figure out how to do that, and then presenting just the calculations of the allocations under the current ABC scenario.

DR. REICHERT: Then the recruitment scenarios.

DR. VINCENT: Yes, and so, for all of these scenarios, it would be -- Well, at least for the first three, or five, however you want to calculate that, they would be for both the long-term average and the recent recruitment.

DR. REICHERT: Okay. Are there any that are missing, that any of the members would like to see, or we discussed earlier? Please raise your hand. Okay. No hands. Jeff.

DR. BUCKEL: Thanks, Marcel. For the closed season scenario, we talked about, on that, what was happening within the closed season, and the uncertainties there, but what about when it opens back up, Matt? The landings -- Are you going to base it on -- I guess I'm trying to think about how the -- I think there is data out there, in these types of reef fish fisheries, with fish with high site fidelity like black sea bass, that, if you have these fish that didn't get caught, that are legal sized that didn't get caught, in Wave 1 and 2, because it closed, but then it opens up, in the later waves within that fishing year, that then -- Those fish would get caught, right, and so -- That are legal, and so I guess making sure that the landings -- That there's going to be this -- Because of how the fishery will operate closed, and then open, how you deal with that change in landings by wave. It will increase more than what we see when all waves are open, if that makes sense.

DR. VINCENT: I think I kind of get what you're saying, and so I was just going to go with the simple approach of, for the discards in the closed season, just assume that they would be the same selectivity of the smaller sizes, just as a simplifying assumption. If that's too simplifying of an assumption, we could try to calculate a weighting of what the potential landings of all sizes would be relative to the discards and try to recalculate a new selectivity for the discards, but that seems very complicated, but, in terms of the landings in the open season, so that F would be based on whatever F allows it to rebuild it to 70 percent, and so it wouldn't really take into account any changes in behavior, or anything like that, that you were suggesting.

DR. BUCKEL: Thanks for the reminder, Matt, and I wasn't asking for any change in selectivity, and so thanks for the reminder on the F.

DR. VINCENT: Okay.

DR. REICHERT: Yes, and I was wondering the same, how that could be approached, but this is definitely, again, a topic, in terms of the potential change in fishing behavior, after the season would be reopened again, and so, in terms of our uncertainty, it would be good to at least mention that that's something we really don't quite know.

DR. VINCENT: I guess I would make the other comment that I think, when I do the calculations, I will try to separate out the shore-based fishing from the other forms of fishing, because I assume that the shore-based would remain unaffected by this closed federal waters, and only transfer the discards that would be from like the boat-based to private, and headboat, I guess.

DR. REICHERT: So remind me. If the season is closed for like black sea bass, would that include shore-based, or are you --

DR. VINCENT: They were saying it was only federal waters, and so --

DR. REICHERT: That's right, and that goes back to that earlier point of, if the states are mimicking federal regulations, that means that shore-based would also be closed for black sea bass.

DR. VINCENT: Okay.

DR. REICHERT: Right?

DR. COLLIER: Like I said, we're going to have to provide that to Matt. That's not the case in all states.

DR. REICHERT: Okay.

DR. VINCENT: Okay, and so I'll have to separate it then by shore and state and something like that. Okay. It will be complicated, but I can figure something out.

DR. REICHERT: Anything else? Judd, maybe you can --

DR. SCHMIDTKE: Matt, just thinking about how that depth of the closed season might affect, you know, discard mortality, if you have it modeled as a single discard mortality across the entire depth spectrum, you know, you're closing the area that is most susceptible to the higher discard mortality, and so you would expect lower discard mortalities across-the-board, when you're fishing just from shore or nearshore, less than three miles, but, currently, you don't have a differential discard mortality built into the model, but that might be something to consider.

DR. VINCENT: So the discard mortality -- We've been over this a couple of times, but I will remind you that the discard mortality is based on a weighting of the mortality at different depths, based on the ratio of the weightings of observed fishing effort from the different depths, and so it kind of implicitly is in there, based on the depths.

DR. SCHMIDTKE: Right, but, if you're closing down a significant portion of that fishery that was used to calculate discard mortality, that's going to change it. That's all I had, Marcel.

DR. REICHERT: Okay. Can you scroll up just a little bit? I forgot that we had the descending devices in the list of uncertainties. Have we added that yet? The bycatch mortality rates. All right, and so thanks, Matt, for that. That is a doable list? I know some of these you've already done, but that's doable to present to us in October?

DR. VINCENT: Yes.

DR. REICHERT: Okay. Can you scroll down to the discussion questions, to make recommendations to the analyst?

DR. CURTIS: Before going there, Marcel, I just wanted to make sure that I captured the discussion I think that Jeff and Genny spearheaded, in that, you know, the reservations of changing the size limits would have that needed effect, when the stock was in such poor conditions.

DR. REICHERT: Yes.

DR. CURTIS: If this is well-captured there or if anyone wants to add some more information there.

DR. REICHERT: I think Steve too, you know, to how best to describe to the council the, quote, unquote, illogical results, and so that may be something we can think about a little bit, because some of this may be counterintuitive, but we may not have to add that here, but that is kind of something we want to perhaps come back to in October again, to make sure that we -- As part of our justification for our recommendations. Jeff and Genny, does that sufficiently -- Jeff, go ahead.

DR. BUCKEL: What's there is good. I guess the SSC -- I will remind the SSC of the statement that we provided with the ABCs that we provided to the council in March, and that statement reads: "The magnitude of black sea bass discards relative to landings is a huge problem. The high levels of bycatch for black sea bass are severely hindering rebuilding, and substantial reductions in effort are needed to reduce overall F for the stock. Strategies to control effort more broadly will be essential to the recovery and sustainable harvest of the council's fishery resources."

I think reiterating the point about effort reductions, if folks are comfortable with that here. You know, a change in size limit, or a seasonal closure, again, I think those have been explored, and not for this species, but in other reef fish species, in terms of management strategy evaluation-type approaches, and those have not ranked as having success, but, yes, I think we made the point about effort before.

DR. REICHERT: Thanks, Jeff. I think that's an important point, and I recommend that -- We don't need to do that now, but perhaps just quote that language from our March report here, to make sure that whoever reads our report knows what we are talking about, and so we will add that. Judd, we can add that quote that Jeff just mentioned later.

DR. BUCKEL: Thank you.

DR. REICHERT: Thanks, Jeff. Anyone else? Can you scroll down a little bit, Judd, unless there are hands raised? I think this is what we discussed, and I think the justification is included here, and I think, for the second bullet, it may be good to say, again, that the SSC feels that that's a more representative estimate, because we are talking about projections.

Then, the next bullet point, I think we addressed some of that above, and we can refer to like some of the uncertainty in the uncertainty comments, especially relative to a potential change in fishing

behavior. Then, for the last bullet point, I think we have the second sentence that is basically the justification for our recommendation.

DR. CURTIS: Correct, yes, and that was directly from that strawman proposed solution.

DR. VINCENT: So I would like to edit that the recreational discards don't exceed both sectors' ACL. They would exceed the recreational ACL and would --

DR. CURTIS: Thank you.

DR. VINCENT: I need to double-check that, but I will get back to you if that changes.

DR. REICHERT: That would be good. All right. Thanks, Judd, for taking these notes, and the edits on the screen, and a question for Matt, and also a question for the council reps. Is this what you need from the SSC at this point to move forward? Matt?

DR. VINCENT: I believe so, yes. I think I have everything I need. Thank you.

DR. REICHERT: Okay, and, Carolyn, any additional comments, or potential requests, or Trish?

DR. BELCHER: Nothing from me at this time.

MS. MURPHEY: I'm good. Thanks.

DR. REICHERT: Okay. Thank you so much. Unless there are any additional comments, I think that this completes this agenda point, and I will open the floor once more for anyone who has any comments, before we move on to the Agenda Number 4. No hands?

DR. CURTIS: No hands.

DR. REICHERT: Thank you. I really appreciate the contributions from everyone. I think this was a very useful discussion, and I'm looking forward to our continuing discussions in October relative to black sea bass management and projections. As we have discussed, it's a very complex issue, and I thank everyone, and also Matt, for his efforts, and his colleagues at the Southeast Fisheries Science Center, and so thank you.

Let's move on to Agenda Item Number 4, Fishery Management Plan Amendments Update. These are Attachments 4a and 4b. I want to remind everyone that we'll probably have a hard stop around noon, so we can have an hour lunch, and then start with the MSE presentation at 1:00, and so, if we don't get to all the points here in this agenda point, we'll pick them up after the MSE discussion. Judd.

FISHERY MANAGEMENT PLAN AMENDMENTS UPDATE

DR. CURTIS: Thanks, Marcel, and so we'll just get a quick fishery management plan amendment update, primarily from Mike Schmidtke, on Snapper Grouper Regulatory Amendment 36, and he's got a presentation that he will go through, and that was included in your briefing book materials,

and then we'll just briefly touch upon three other amendments that are being developed, Coral Amendment 10, the Comprehensive Southeast For-Hire Integrated Electronic Reporting, or SEFHIER, Improvement Amendment, and the South Atlantic Ecopath with Ecosim model application. Mike, I will bring up your presentation, and I guess I'll just scroll through, if that's all right with you.

DR. SCHMIDTKE: Yes, that's fine. It's not very long. All right, and we can go ahead and advance to the next slide, and so I'll be talking through an amendment that the council is finishing up right now, and we're bringing this to the SSC just because it's not really assessment based, and we have two actions that are coming through this amendment that the SSC hasn't had a chance to look at yet, or give contributions on, and so we wanted to make sure that we brought these before you all, so that, if you have any comments, that those can be recorded in the amendment process.

The first action addresses gag and black grouper. When we went through Amendment 53, this was our response to the most recent gag stock assessment, and Amendment 53 put in a whole slew of new management regulations for gag, and, because black grouper are in an aggregate with gag, in terms of their bag limit, and they're also regarded as you can catch one gag or black grouper, when it counts towards the aggregate grouper and tilefish limit, and black grouper also had regulatory changes.

One of the changes that came about in that amendment was the establishment of recreational vessel limits, and the limits that were established in that amendment were two gag and two black grouper per vessel per day or trip, depending on if it's a private or a for-hire trip.

The council, when they were going through their discussions, they had a lot of discussions about -- I think they had some intent to have that be an aggregate limit, and so, once we got through the rulemaking process, they saw the regulations, and they decided that they wanted to change those two individual limits, and so, right now, a vessel can have two gag, and it can have two black grouper per vessel, and they wanted to make that an aggregate, to be consistent with the other places where those two species are aggregated. The action that will be addressed in this amendment is to have those set as two gag or black grouper, and so it will be two fish total, per vessel, comprising either gag or black grouper.

The other action that is addressed in this amendment is looking at on-demand black sea bass pots, and so, over the past several years, there have been experimental uses of these black sea bass pots that have an on-demand, or a ropeless, retrieval system. The pot itself, the fish catching device, is no different than your regular black sea bass pot. It has all the same specifications, in terms of its size and its openings. All that is -- It's just a regular black sea bass pot.

The difference is that, with these on-demand models, there is no vertical line sitting in the water. For some of them, there is a line that's tied down to the pot itself, and, upon some type of trigger, it's released, and then a buoy floats and carries the line up, when that pot is ready to be retrieved. Others don't have any vertical line at all at any point, and they have mechanisms like inflatables that can bring the pot up from the bottom to be retrieved at the surface, and these types of retrieval systems -- They have been used a lot more extensively in the Mid-Atlantic, and in the Northeast, for some of the pot fisheries up there.

It's been tested, like I said, in our region for black sea bass, most recently, and the council went through a review of the current regulations, to see how can this type of system be implemented, and put in place, for our black sea bass fishery here in the South Atlantic.

What they found is that there aren't any regulatory restrictions on the use of this gear, but there is some impracticality for this gear, when it's being transported, and so one of the requirements that we have for black sea bass pots in our region is that, when vessels are transiting marine protected areas and spawning special management zones, they have to detach the buoy from the pot, and that becomes a problem just with how the on-demand system is constructed, and so they decided to add an action that would address that, try to make the use of this type of gear a bit more practical for those that would choose to use it.

This is just showing you the alternatives that are considered for that first action, for gag and black grouper. Alternative 1 is our current scenario, where there is two gag and two black grouper. The preferred alternatives, 2 and 3, they are that aggregate that I was talking about before, and they just address the private component and the for-hire component separately, but, right now, the council has selected those two as the preferred, and so there would be an aggregate limit, rather than the two separate limits, for each species.

I just wanted to throw the -- We don't have a whole lot of analyses for the other action, just because it's not really changing the way that fish are being caught, but just a brief piece of the analysis that was completed for this first action is we looked at the catches of each species per vessel. We don't have information from 2023, when the recreational vessel limits were in place, and so all of this is pre any vessel limit.

This goes through 2022, but what you can see here is that very few trips are catching more than two gag, or two black grouper, on the same trip, and, within those data, we had -- I think it was 97 percent, something like that, that 97 percent of trips caught only one species of black or gag grouper, and so there's not much overlap, in terms of, you know, the same trip being in both sides of this figure, and so many of these trips would not be -- Would theoretically not be affected by this type of measure, but a small number would be, and it would probably be mostly in the headboat component, because there is no separate limit for headboat, even though they do carry a larger capacity of passengers.

The council is talking about headboats in a different conversation, and so we'll leave that be until that comes about, but I just wanted to throw this piece of analysis in front of you, just to show you that that's some of the background information.

The alternatives for the on-demand pot transit, under all of these alternatives, there is the language in there that the pots must be appropriately stowed, and what is being considered in the different alternatives is what is the definition of "appropriately stowed". In all cases, the pots must not be baited, and so that's kind of that first step, to make sure that these pots are not being deployed in areas where they're not supposed to be used, to make sure that they're not baited, and, right now, for all pots, the buoys need to be disconnected from the gear, but they may remain on deck.

Under the council's preferred alternative, the pots continue to -- They're still required to not be baited, but the buoys may remain connected to the gear, for those that are equipped with on-demand gear only, and so your traditional roped pot would still have to have the buoy disconnected.

Alternative 3, this one was based on nearshore transit regulations, and so, in the nearshore closed area for black sea bass pots -- They have a nearshore area that is seasonally closed, and, within that area, the regulations currently say that the buoy doesn't need to be disconnected, but it needs to either be disconnected or it needs to be stowed inside of the pot, and so that kind of motivated Alternative 3 to be an option, where those that are equipped with on-demand gear can keep the buoy attached, but they need to stow it within the pot, and that seemed to work for some of the pot fishermen that were informing us from that experimental use, but the council decided Alternative 2, based on some feedback from some of the other pot fishermen that were involved in that experimental use.

Ultimately, we're bringing this amendment, to make sure that it's come before the SSC and you all have had the opportunity to provide any recommendations that you have for or against any of the considered alternatives, and that will be brought for the council when they consider this for final approval at their -- They will do that at their September meeting, and so any comments that you provide at this meeting we'll provide to them before they make their final decisions, and that's all I have, and I can open it up for questions.

DR. REICHERT: Thanks, Mike. Any comments from the SSC relative to what Mike just presented, both on gag and black grouper and the ropeless pots? I think we, as an SSC, discussed some of that, where we had presentations of these issues previously. Jennifer.

DR. SWEENEY-TOOKES: Thank you. You answered my question before I could ask it, Mike, but I just wanted to say that I'm glad to hear that the council is discussing that whole for-hire versus rec limits. That didn't immediately strike me as being really inequitable, and people fish, really, and not boats, when it comes down to it, and so I'm glad to hear they're discussing it, and I will be interested to hear an update.

DR. SCHMIDTKE: Yes, and the council decided -- We got quite a bit of feedback from the headboat sector, the headboat component primarily, on this action, discussing that. The headboat component, right now, has that two fish -- You know, two gag and two black grouper limit, and like that's in place right now, but they came out a little bit louder this time around, when it was being discussed again, and so the council decided to pull that discussion of headboat limits out of this amendment, so that they can discuss it not just for gag and black grouper, but those types of limits are also being talked about for scamp and a few of the other groupers that are in the snapper grouper fishery down here, and so there's going to be a more collective conversation of how does the council want to address this headboat component when it comes to these recreational vessel limits.

DR. SWEENEY-TOOKES: That makes perfect sense. Thank you.

DR. REICHERT: Thank you. Thanks, Jennifer. Anyone else? I think this was all pretty straightforward. No additional comments? Thanks. No hands.

DR. CURTIS: Okay. Moving on, Chip is going to present, or just discuss, the Coral Amendment 10, which has to do with the coral habitat areas of particular concern and any potential SSC feedback that may be necessary in the future. Chip.

DR. COLLIER: Thank you. If you look at Attachment 4a, that has -- It's called the active amendments document, and the second amendment that is discussed in that is Coral Amendment 10, and what this amendment is looking to do is establish a shrimp fishery access area along the western boundary of the Oculina Bank Area of Particular Concern, and it's mainly on the northeast side.

It's a new area that was -- Well, it's a decade old now, but it's the newest part that was created back in 2014. When it was initially created, the council had worked with our rock shrimp fishermen, in order to create this area to protect oculina, and then, towards the end, it was indicated that some of the fishermen were actually using the area that was going to be closed based on some VMS data.

What this amendment is doing is trying to look at what the fishermen had provided as areas that they had fished in the past, and still try to protect the Oculina Bank, but, upon submission, Coral Amendment 10 was rejected by the agency, indicating that there was some issues with it, and, Allie, you can correct me if I'm wrong, and I know you know this amendment much better than I do, and so just raise your hand, but there were some issues that it didn't have a bycatch practicality analysis included in the amendment, as well as there were some issues that it wasn't necessarily protecting EFH.

There's been some work in the area, since 2014, trying to look at whether or not coral is in the area that the council is considering opening, or allowing an access area, and they haven't been able to look at most of the area. I think, the few dives that they have looked at, they did not find coral in those areas, but there is indication that they would like to continue to do more research in that area, and so the council is going to continue working on Coral Amendment 10.

This might become a joint amendment with the shrimp fishery, in order to get them more actively engaged into the process, and we'll keep you updated as it moves along, but we just wanted to give a highlight on this one, and you can see the timeline and everything in there, and, Allie, if I missed anything, and I know I'm calling you out, kind of unknowingly calling you out, but, unfortunately, Kathleen couldn't make this meeting today. She's in another meeting, and so, council members, if there's any questions, you can see Kathleen Howington, who was our previous SEDAR coordinator, and she is now our habitat program lead, and so you can contact her with questions, or you can contact Allie Iberle, who has been heavily engaged in this recently as well.

MS. IBERLE: I think you covered it well, Chip. Thanks.

DR. REICHERT: Thanks, Chip. Any comments, or questions, from SSC members? Any hands raised? No hands?

DR. CURTIS: I am not seeing any hands, Marcel.

DR. REICHERT: Okay. Thanks, Wally. He reminded me that I skipped the public comment. I am suggesting that we do the remaining items and then have public comment at the end, unless anyone has any objections against that, and so, with that, the next I assume is the for-hire. Thank you.

DR. CURTIS: Yes, and so I'll give a brief update on the Comprehensive SEFHIER Improvement Amendment, and this is one that is fairly brand-new. This kind of came out of some of the June council meeting discussions. Basically, the Southeast Regional Office has been hesitant to use SEFHIER, because of compliance issues surrounding the data collection, and is proposing to refrain from using this as a data stream in any assessments or management moving forward.

There has currently been direction from the council to initiate this amendment to improve the SEFHIER program in the South Atlantic, and that's going to involve some discussions with the Social and Economic Panel in October, as well as coming to the SSC in our October meeting as well, to look and see what aspects of the program might still be useful in the assessment process, or for management, and if there's any other mechanisms for improvement of compliance and betterment of the program. This is, again, just a brief update on things to come, but, again, we'll see this in our October briefing book, with hopefully some more information for SSC feedback and recommendations, and I will open it for any questions at this point.

DR. REICHERT: Any questions or comments?

DR. CURTIS: I am not seeing any hands raised.

DR. REICHERT: All right. I have a quick question, and this may be my misunderstanding, or not completely understanding this, and so this is a data and reporting issue, and, Chip, remind me why this ended up as an amendment. Does that question make sense?

DR. COLLIER: Yes, because there is some parts of it that require council action, and some parts that don't, and we do have a document that was put together to indicate which parts the council would have to modify for the amendment to move forward, and that's probably a good thing for us to provide to you all, as well as the SEP and the APs, in order to gather good feedback.

DR. REICHERT: Thank you. I appreciate that. No hands? Okay. Then let's move to the Ecopath and Ecosim model application. I assume, Chip, you're presenting that?

DR. COLLIER: Sure. Just giving you all an update on what's going on with EwE. This has been a very long project, and, luckily, most of you haven't been involved in it the whole time. It started around 2000, is when the initial EwE was being developed, but we've been getting the SSC more heavily engaged since 2020, where it was reviewed by the SSC, and there were some specific recommendations for that.

Basically, we need to develop this model to answer a question, and there were four potential questions that were identified by the council and the SSC. The first one looked at the potential impact of high red snapper recruitment on other species within the complex, and, upon reviewing this, there was a little bit of concern on the number of trophic groups that were included in the model, and I believe there were 140-plus trophic groups, and so that made it a little bit challenging, especially for something like red snapper, that is an omnivorous fish.

A lot of the diet could be spread out over several different trophic groups, and so what's being developed now is a simpler model, and it's being called a MICE model, and I think, in some areas, they call this a model of intermediate complexity for ecosystems, and what it's looking at -- I think it has maybe around forty trophic groups, or less, and it's focused on several of the snapper grouper

species, and many of the assessed species, trying to make sure that the model that's being developed is following some of the same trends that the single species stock assessments is seeing and then potentially thinking about the ecosystem impacts of some of the management issues that could be coming along, or, in the case that's being addressed right now, and is going to be presented to the SSC in April of 2025, it's adding an Ecospace component into the Ecopath model.

What they're primarily looking at is potential shifts in species distribution over time, and our pilot one, that we really want to be looking at, is black sea bass, and, like the report says, it's going to be coming to you all potentially in April of 2025.

DR. REICHERT: Thanks for that overview, Chip. Any comments, or questions, from SSC members? When we discuss the committees, the working groups, we'll probably come back to some of this later, relative to actions of our working groups. No hands? Thank you. We have about fifteen minutes before lunch. First of all, are there any public comments? Judd, any hands raised or online comments? Sorry that I forgot to do that earlier.

DR. CURTIS: I don't see any hands raised online.

DR. REICHERT: So no public comment. Thank you.

DR. CURTIS: There was one online comment, generally just about frustration with how management is in the South Atlantic region, likely in response to some of the red snapper management. I am not going to read the actual comment, because there is some language in there that wouldn't be good to have on the public webinar.

DR. REICHERT: I agree, and, to me, what I hear is not germane to any of the -- Specifically to any of our agenda items today, correct?

DR. CURTIS: That's correct. It was pretty general.

DR. REICHERT: Okay. Thank you. Judd, if you don't mind, I would like to use a little bit of the time we have left, about ten minutes, and would you mind -- Are you willing, and ready, to give a brief update on the national SSC meeting? I think that's probably a relatively short item that we can complete now.

DR. CURTIS: Yes, that sounds good, Marcel.

DR. REICHERT: Okay.

OTHER BUSINESS: UPCOMING SCS8 MEETING

DR. CURTIS: The SSC -- We briefed the SSC on the upcoming Subcommittee for Science Meeting Number 8, or the national SSC meeting, and it's going to be taking place starting in just a couple -- In about a week-and-a-half, in late August, in Boston, Massachusetts, and, for those not familiar, the national SSC meeting is a chance for representatives from all the different SSCs of each council to convene together and discuss some kind of higher-level issues that are occurring

around the country, and the theme for this meeting -- Sorry. Just one second, Marcel. I just lost my --

DR. REICHERT: No worries.

DR. CURTIS: The theme for this meeting is current approaches to defining ABC control rules and challenges in their application, and so I wanted to get that exactly right from the agenda, and so the way it's structured right now is there's going to be three sub-themes, each trying to address kind of that more global objective, and the first sub-theme will be advances in ecosystem science and assessment to inform ABC control rules in a dynamic environment. As one of the case studies for that section, that sub-theme, we have Jie Cao presenting on spatiotemporal dynamics of reef fishes in the Atlantic Ocean and the southeastern U.S. coast, and so thank you, Jie. I'm looking forward to your presentation in a couple of weeks.

The second theme is -- It's the application of social science to achieve management goals under dynamic conditions, and, within this realm, we have Andrew Ropicki, who serves on the SSC's Social and Economic Panel, giving a presentation on catch shares and market information to inform fisheries management.

Then, lastly, Sub-Theme 3 is we have the adaptation of reference points, control rules, and rebuilding plans to a changing environment, and, within this section here, we'll have a case study presented by Matt Damiano, at the Southeast Fisheries Science Center, having to do with the low recruitment in Southeast fisheries and the impacts on rebuilding scenarios and catch level recommendations, and that has really permeated a lot of our discussions around the recent stock assessments that are experiencing this low recruitment, and so this is work that has come out of a group that Kyle has led, primarily, and he's provided some presentations to the SSC, or to the science seminar series, in the past, and so hopefully we can get some nice guidance at the national level, and some inputs and some ideas, on what to do as far as adaptation of the reference points under this low-recruitment scenarios that we're experiencing.

Each of those sub-themes, we're going to have a breakout group discussion, following the series of case studies and keynote addresses, in which members will all discuss in the breakout group formats and then reconvene in a global discussion around the table.

As part of the aftermath of this meeting, there is going to be some tasks to the various representatives and staff on putting together the report, and really trying to come up with tasks that are operationalized into the regional council and SSC levels, and so, upon return from the national SSC meeting in August, we'll have a more comprehensive report of what was discussed and any tasks directed our way, on a regional level, and that will be provided in our October SSC meeting. Marcel, if there's anything else that you would like to add to that, but that's all I have for that update.

DR. REICHERT: Thank you. I think the key is that they're looking at actionable items. Rather than to provide kind of very general recommendations, they're really looking at something that SSCs across the nation can use in their recommendations to their respective councils. Maybe you can remind us, briefly, who the members in attendance are, because we haven't gone through the working groups yet.

DR. CURTIS: The list of SCS8 attendees, you will see it down there, as part of our workgroups document that we'll get to later this afternoon, but myself, as the SAFMC staff representative, and Jie Cao, as a member of the SSC and a case study presenter, Marcel Reichert, our SSC chair, Kai Lorenzen, SSC member, Andrew Ropicki, as part of the SEP and a case study presenter, and then Matt Damiano, as part of the Science Center and a case study presenter.

DR. REICHERT: Thank you, and, in addition, I will provide a five-minute overview of our ABC control rule, or control rules, in conjunction with an overview of every control rule of the various SSCs, and so I will be presenting that.

DR. CURTIS: Thanks, Marcel. I forgot to mention that.

DR. REICHERT: No worries.

DR. CURTIS: As part of the opening section, there's going to be -- We've been putting together a list of, from across all the different councils, our current ABC control rules, and also the various stock status determinations for a number of our assessed and unassessed stocks, and that will be used as kind of a nice resource, hopefully, coming out of the meeting, to see where other regions' stocks are and then to compare and contrast the different ABC control rules, successes, limitations, and how we can improve upon them.

DR. REICHERT: Perhaps we can add that to the October briefing book, because I think it would be a useful resource for our SSC members, Judd.

DR. CURTIS: Yes, we can certainly include that as part of the discussions of the SCS8 meeting, and any reports and tasks that are coming out of it.

DR. REICHERT: On a related question, you know, Judd and I, we talked about that, but -- This may be a question for Mike, but we have not applied our new ABC control rule yet to any stocks, but we will likely have to do so soon, and is there a cheat sheet for the new ABC control rule, and would it be possible to include that in our October briefing book, and this is just a thought that I -- This is something I thought of when we were discussing the ABC control rule relative to the national SSC meeting, and we can come back to that later, if necessary, and so --

DR. CURTIS: Marcel, I think that's a great idea, you know, as opposed to having to thumb through the entire amendment document to figure out the new ABC control rule, but to provide like a cheat sheet, similar to what we had provided in the old ABC control rules, where you had really just the meat of the control rule, in a distilled-down table that can be reviewed when we're going through the various assessments, and so staff will work on that, and we will provide that for the October meeting.

DR. REICHERT: Yes, because this has been a long process, and so I think it also would be good to, you know, get all of us back up to speed, relative to the control rule. Okay. Thank you.

DR. CURTIS: Yes, and, also, we've got some members as well too, that haven't seen the new -- Or weren't part of the discussions for the revisions to the ABC control rule, and the new amendment, and so I think a nice refresher would be beneficial for all.

DR. REICHERT: I agree. Thank you for that. Any questions, or comments, relative to the update on the SCS8, or the national SSC meeting? No hands? So this is perfect timing, and it is about noon.

DR. CURTIS: Marcel, we've got one comment from Jason Walsh.

DR. REICHERT: Okay. Go ahead, Jason.

MR. WALSH: Sorry, but I just wanted to clarify. Is there any portion of the national meeting that will be streamed, or recorded, or is there a way to tune into that?

DR. REICHERT: Good question. Judd, do you know? I don't believe so, but --

DR. CURTIS: I believe the keynote presentations, and possibly the case studies, will be streamed to a public audience, but there will be no -- You will not be able to contribute, and only the people in the room, but I do believe there will be a streaming of the presentations that you can view, but I will confirm that and get back to you.

DR. REICHERT: Yes, and maybe you can share that potential link with the SSC.

DR. CURTIS: Yes.

DR. REICHERT: Thanks.

DR. CURTIS: Will do.

DR. REICHERT: Good point. Thanks, Jason. Anyone else? No hands? All right. Well, as I said, it's around noon. Perfect timing, and let's take a one-hour break and come back at 1:00. Where will start is with the management strategy evaluation, and then we will continue our agenda, and so enjoy lunch, everyone, and we'll see you back in an hour, and, when you get back, maybe raise your hand again, so we know who is going to be back after our lunchbreak. Thanks, everyone.

(Whereupon, a recess was taken.)

DR. REICHERT: Welcome back, everyone. I failed to mention, earlier this morning, to remind everyone that, as usual, this meeting is recorded, and it will be transcribed, as our webinar minutes, and I just wanted to have that on the record.

Next, thank you, and welcome back, everyone, and next on our agenda is Item 5, the Black Grouper MSE Update, and there are five attachments, or there are Attachments 5a through 5d, four attachments, and we have three actions items to discuss. Judd, I believe, will give a brief overview and then hand it over to Bill Harford, who will present the overview. Judd.

BLACK GROUPER MANAGEMENT STRATEGY EVALUATION (MSE)

DR. CURTIS: Thanks, Marcel, and so we have Bill Harford and his team from Nature Analytics providing a presentation on their black grouper approach to a management strategy evaluation for

the assessment of black grouper, and, of course, the reason that we're here, as mentioned in the overview, is we need an alternative to the previous stock assessment, SEDAR 48, which was terminated due to a variety of issues raised in the data workshop, particularly misidentification issues between black grouper and gag, which rendered a lot of the landings time series uncertain and not usable. For kind of a full report, you can see Attachment 5d, which is the data workshop report.

Upon this discovery, the SEDAR Steering Committee supported the decision to halt the SEDAR 48 assessment and seek an alternative solution, and this presentation that you will see now, and supporting material, is kind of the first step towards determining the solution and, of course, providing some management advice for black grouper.

You see just the two action items down below, and, once Nature Analytics provides their presentation, it's to review their MSE model, data inputs, and approach, and then any suggestions to the analytical team on how to proceed, or any concerns, and so, with that, I will turn it over to Bill. Just give me a second to make you the presenter.

DR. HARFORD: Okay. Thank you, Judd, and thank you, Mr. Chair. I just want to make sure that you're seeing the presentation, the title slide from my presentation.

DR. REICHERT: Yes, we do. Thank you.

DR. HARFORD: Great. Terrific. Okay, and so let me just start by thanking the SSC for inviting us to give this presentation. With me are my colleagues Vania Henriquez, who was the analyst on this project, as well as Peyton Moore, who prepared all of the scientific communication materials, including the information booklet that's included with our report, and my name is Bill, and I'll be giving the presentation.

I wanted to start by just providing some brief context, in terms of a timeline, on how we got to the presentation today. This presentation is the result of a report that we produced on exploring the viability of management procedures as an alternative for managing black grouper fisheries. We got here following the suspension of the stock assessment in 2017, that you're all aware of, which was followed, in 2024, by FWC initiating this study, and so I'm going to walk you through the results of the report that we've produced, in terms of a five-part synthesis for considering pathways to designing MPs for black grouper.

The presentation proceeds as follows, and so I have some introductory notes, a bit of background there, followed by a summary of the key uncertainties affecting management of black grouper to-date, a review, or an overview, of some concepts related to management procedures, or MPs, as I will refer to them throughout the talk, and we'll talk about MPs for other fisheries, especially those that are facing similar challenges to black grouper, and then a brief, a very brief, three-slide note on MSE, and I know this group is well-versed in the topic, and I just have a couple of comments on that, and then, to round out the report, we have proposed sort of a conceptual pathway to think about how one could move forward with designing black grouper MPs, if that's desirable, and then we'll conclude with some summary slides that I hope will support this group's discussion after the presentation.

Some introductory notes to start with, and just a quick overview, to orient the group to the existing set of management regulations, and this slide is showing a summary for the South Atlantic region. There are, of course, permits for commercial fishers, ACLs, gear types and usage regulations, seasonal closures, MPAs, minimum size limits, and a system of bag limits, aggregate bag and recreational vessel limits, and I have not put the details here, but this was just to illustrate that there are a variety of management measures already in place.

Similarly, for the Gulf of Mexico, the commercial fishery is managed through an IFQ program, and there are ACLs, of course, and gear type and usage regulations, seasonal closures to protect spawners, a minimum size limit, and a recreational bag limit.

This brings us to the process, or the current process, for setting an ACL for the fishery, and I have a couple of slides here that just summarize the problem at-hand. The fundamental issue was inaccurate landings, due to misidentification between black grouper and gag grouper. Of course, this leads to a problem of what might be referred to as scaling in a stock assessment, and so that is the estimation of biomass based on landings, where the biomass is scaled, or estimated, according to those landings, and so this produces a problem of reliability of a stock assessment, and it led to the conclusion of unknown stock status.

Of course, there is still a requirement for ACLs, and so what the current decision-making process looks like is the council -- The similar processes that both councils -- So, in the South Atlantic, the stock would fall under Level 4, or no stock assessment, and a catch-only rule would be applied to drive ABC. Similarly, in the Gulf of Mexico, this stock would fall under Tier 3a, which means there is no assessment. Landings data are available, and we move into a catch-based, or a catch-only, sort of process for setting OFL and ABC.

Now, given our focus here on designing, or considering, alternative management procedures, it is worth visiting, or revisiting, some of the key uncertainties that currently impede moving beyond that catch-only approach for setting catch limits for black grouper, and so we'll briefly walk through a few existing data streams and their anticipated reliability to support management procedures for black grouper.

Just a bit of context in how we set up the bounds of our data synthesis here. We did not stray too far from SEDAR 48, the SEDAR 48 working group report, with a few additional comments, and, to summarize our approach, we applied what might be called a coarse traffic light approach to guide our discussions, and an important caution here is that, at this point in the process, this traffic light approach is not intended to exclude any data types, including catches, including landings, but simply to help us understand where the challenges lie in moving forward.

To begin with, all of the available information that might feed into a stock assessment was summarized according to data categories, and so, if you look on the right, the two right-most columns in this table, and one is called data category, and one is called data reliability, and, at a glance, what you can see is that there is reasonable expectation for using life history information, the existing life history information, marked as good quality, and that would satisfy the requirements of stock assessment, and also likely the requirements of any management procedure.

Catches, on the other hand, were, as we've noted, and as was noted in SEDAR 48, they might be low quality, but we also have some interesting medium, or moderate, quality information, in terms

of the catch composition, and that's the length composition in the catches, and there might also be opportunities to rely on population indices. Again, the catches are the limiting factor here, but, if we can start to think about other management procedures that don't rely on catch, we might be able to advance beyond the catch-only approach that is the status quo method for setting catch limits today.

It also might be useful to look at the available data, in terms of sort of a time series context, and there is quite a bit going on in this slide, and I know this group has seen slides that look like this, that come out of stock assessments, and so, here, the first thing that's important to note is that the colors are not the quality indicators that I showed you on the previous slide. I do apologize for that. We probably should have used a different color scheme here.

What the colors are showing is, for length or age sample, the catch compositions, they're showing relative sample -- Not relative. They're showing absolute sample sizes, and I think this is an important distinction between what was on the previous slide, and so what we're showing here in the gray dots is just whether data are available, and no ranking of quality, but, when it comes to the length samples, it was possible to look at the sample sizes and make some let's say coarse judgments on data availability, and so we see that there is a possibility of using commercial length samples, that have mostly yellow and green dots, at least from the handline and longline fisheries, and we have some abundance indices, at the bottom of the plot, too that have reasonable time coverage, and so we're starting to get this picture that there might be information here that we can use to build something.

Just to put a finer point on a few of these data streams, and we have one slide for data streams, and so life history is generally acceptable for use in stock assessment, and that was, of course, noted by the SEDAR 48 working group, and, likewise, we expect that to be applicable to MP design.

A few caveats, and natural mortality probably needs some exploration. It might be one of the more uncertain life history parameters. I understand, vaguely, that there is a mark-recapture program involving black grouper. However, I don't think there is sufficient recaptures yet to estimate natural mortality, and so that parameter remains highly uncertain. We have some older estimates for maturity as well, but, again, no particular concerns here.

If we move to the population indices, and, again, this was identified as generally acceptable for us in stock assessment, and, in particular, what we're referring to here is that there is at least a few viable options to explore, including the RVC data and fishery-dependent indices, particularly from the MRIP data and from the headboat survey.

There are caveats here as well. We are interested in the question of hyperstability in some of these indices, and it's a bit difficult to draw any conclusions from that, but it's something that is on our radar, in terms of their use in decision-making, but I think that -- We'll come to this a little bit later, but there are certainly many opportunities to explore those questions, especially in that simulation, or MSE, context as well, and so we just wanted to flag those.

If we move to the length composition data that's available, particularly for the handline and longline fisheries, there is information here that could, for example, be used to track changes in mean length in the catches over time, and, again, there is some concern about sample sizes, but certainly statistical issues related to sample sizes, and the use of that data in decision-making, is

something that is well suited for subsequent analysis and exploration, and, in other words, can we make good decisions despite some moderate limitations on data. The length composition data, at the very least, could certainly help us align the population indices with the component of the stock that they are tracking, for example.

Then there's this -- I'm going to sound like a broken record in this presentation a little bit, but this is the fundamental reason why we're having these discussions, is challenges in the reliability of the landings data, and I think, at this point, we're considering the idea of moving around that problem and taking a look at alternative approaches that aren't so heavily reliant on catch histories to support setting catch limits.

This is really -- This is really a sort of a key transition point for us, in making this presentation, and so the issue here is that we at least have, in the last few minutes, provided a cursory overview of the data limitations. There is certainly subtleties and nuances to all of it, but I think the place we really want to get, in this discussion today, is how do we proceed, right, and how can we overcome those limitations and improve management recommendations, and related to that is how can we design, or should we design, a process for addressing these limitations, and what does that process look like, and we are, the team that put this together, going to share some ideas for thinking through decision of management procedures in the next couple of sections.

In Part 2, we'll talk about what management procedures are and how they can be used to address some of the challenges that we're facing. Let's just orient ourselves to what we might think of as a management procedure, and it might be considered a system for the way in which information will be used to support decision-making, a broad definition, and I will narrow-in on that a little bit as we move forward.

We generally think of a management procedure as having three interconnected components, monitoring programs for data collection, an analysis yielding values of indicators, and I purposely -- We have purposely used the word "analysis", despite how vague that is, because analysis can mean a wide variety of things, from a fully-integrated stock, at one extreme, to perhaps using a nominal index at the other extreme, with no real subsequent computational analysis applied to it at all, and so it's a wide range, and, of course, analysis can also encompass what we think of as data-limited methods as well, and so any of those sorts of things can be part of the analysis component of a management procedure. Of course, what we try to do is couple that with a harvest control rule, or a decision rule, which is essentially a pre-agreed process for calculation of catch limits.

I think it's important to think about this as a paradigm. You may see this slide and say, well, we're already doing that, and absolutely you are already doing this. One of the things that we need to look closely at, when we move away from stock assessment, is how these interconnected parts work together to achieve fisheries management objectives, and so this is not a new concept. Management procedures is not a new concept, but what we're proposing is that there's some novelty here, as could be applicable to managing black grouper fisheries.

One of the ways that we think is useful to conceptualize design of management procedures is along what we call a spectrum of complexity, and what we have found, through experience, is that data limitations are likely to form the basis of proposed solutions, and so let's start, on this slide, on the far-right of the slide, where my cursor is, where it says "data rich", and this probably looks like

what you would already do for many stocks, right? Where sufficient information exists, the management procedure is centered around a conventional, fully-integrated stock assessment.

The other extreme is what might be referred to as data-less management, and, at this extreme, we're talking about a lack of information altogether, and so the priorities might be management measures that we might consider static, so to speak, like size limits, and/or establishing a monitoring program that could later become the basis of a management procedure. Those are the two extremes, but likely where we find ourselves, with many stocks, I think including black grouper, is in this intermediate zone in the middle.

I think this is where the design of a management procedure can be based on qualitative data, by which I mean indicators that can only be labeled as good or bad, as sort of states of the resource, derived from raw data, and I mentioned the use of indices, and they can also be based on simple demographic models. Simple demographic models is just a generic way to say data-limited methods, where we typically are making some assumptions that we need to make, due to a lack of data, where those assumptions typically are not required in fully-integrated stock assessment.

Where we want to move from here is to dig a little bit deeper into this idea of intermediate complexity management procedures, as a way to become unstuck from the problem of catch-only methods for black grouper.

Just an aside here, to dive a little bit deeper into what we mean by "intermediate complexity management procedures", and these are often -- There is, obviously, a lot of jargon, but these are often referred to as indicator-based MPs, and so that's what I'm going to refer to them as, moving forward, and the idea being that these are ways to proceed with fishery management without complex stock assessment.

That's the sort of practical line that we're drawing between what is an indicator-based MP and what is not, right, and, if it involves a stock assessment, it's not an indicator-based MP, at least as a pragmatic way to understand this approach, and so these indicators are typically observations, or estimates, of the state of the fisheries, and this is important, that are proxies for variables of interest, and so an index of relative abundance could be a proxy for a biomass trend estimated in a stock assessment, and there's a little footnote in the corner there that says we are not dismissing stock assessment as a viable path forward, and I will return to this issue of, if stock assessment is still a viable option, or could be a viable option down the line, there are ways to pursue improvement there as well. Again, I'm not being dismissive of these alternatives, and I will come back to it.

The way that we like to think about indicator-based MPs, maybe as a more practical definition, is that they can be used to support decision-making in the absence of biomass estimates, and so in the absence of stock assessment.

What I would like to do now is transition a little bit to provide you some generic examples of management procedures. After we talk about these generic examples, I have some real examples from real fisheries to discuss with you, but the generic examples are a useful place to start, because it's going to allow us to walk through design of management procedures, but, also, it's going to help illuminate some problems with management procedures, and my hope is to convey to you the sort of depth of thought that has to go into designing these approaches.

We're going to start on the left, the plot on the left, side of your screen, and we're just going to assume that we have an indicator here, as a red line, and that indicator -- Just think of it as an index of some kind, and the objective here is to keep the indicator stable, through adjusting catch limits, so it stays between the upper and lower bound, and let's call this upper and lower bound a reference range, for lack of a better term, and so what this harvest control rule does is it says, if we are above the upper limit, we'll change the catch limit by some fixed percentage, and say 5 percent, just as an example, and, if we're in between the bounds, no change, and, if we're below the bounds, a reduction, a fixed reduction.

I'm going to share with you two problems with this approach. The objective is straightforward, but the execution is problematic, and the execution is problematic because it can certainly lead to highly-variable catch limits, or a sort of yo-yo effect of up and down, up and down, up and down.

The other problem here is disputes. Because we have a hard line drawn on the plot, we have found, or we have heard, that these sort of approaches can create disputes among stakeholders, and decision-makers, about whether we have really crossed the boundary or not, and those sorts of discussions about statistics and index standardization, and all kinds of complexities that open the door for the kind of disputes that a pre-agreed process of setting ACLs is intended to avoid, and so I would say that this is a good entry point to our discussion of MPs, but it's not really an ideal management procedure.

Let's move to the MP on the right side of your screen, and I think that this one offers a slight improvement on the previous, and so it still has a similar objective. It's basically saying we would like to keep the indicator stable, based on a current trend, and let's assume we have the same objective on the approach on the left side of the screen, and so keep the indicator stable, based on a current trend.

Importantly, if we can measure the slope of the current trend, we can adjust the catch limit relative to the magnitude of that slope, and so this gets away from arbitrary crossing of thresholds, or not, and it also has the potential to create more stability in catches, because you're only adjusting -- The adjustment to the catch limit is not static. It's not a fixed percent. It's relative to the magnitude of the slope of the line, and so, if things are going along smoothly, and we have a stable indicator, we don't see very much change, and only when the slope increases dramatically, in the positive or negative direction, do we see changes to the catch limits, more substantial changes to the catch limits. I think the takeaway here is that, just through some thinking about the design of these approaches, we can begin to resolve problems that might arise related to their implementation.

There are alternatives as well, and so the last two examples were really focused on -- I apologize if I wasn't clear about this, but they were really focused on maintaining a stable index relative to current conditions, or recent past conditions, but, of course, we can reconfigure the problem to say, well, what if we had an indicator target that reflected some historical condition that was thought to be sustainable, was thought to yield reasonably good catches, et cetera, et cetera.

So, if we have a historical good CPUE, or a historical good index value, that we can use as a reference point, catch limits can vary in relation to the distance from this target. For example -- This is the example on the left. On the right, we have a similar situation, except that the calculation of an adjustment to a catch limit is based on two inputs, the distance from the green line to the red index and the slope of that index, and so there is, I think, potential here.

I would need to test this one, but I think there is potential here to create improved stability in catches, through this kind of approach, and, again, this is in reference to some historical reference point that would be considered acceptable to stakeholders and decision-makers.

This is just a bit of a flavor of what we might call generic management procedures, and now I'm going to shift into what we might find in terms of real examples that have been put in place, or could be put into place, in the real world for fisheries facing some of the same issues as black grouper, and some context is important here, and I think I'm just going to read this slide, and so summaries are provided for three fisheries that faced similar limitations as the black grouper fishery and have chosen to consider indicator-based management procedures. In each of these examples, the catch advice is adjusted based on the indicators, such as biomass, catch per unit effort, or mean lengths, and these management procedures work to provide evidence-based recommendations that accommodate different degrees of data availability or data quality. It will become clear in a moment what I'm referring to.

Let's start with an example of thorny skate from the Gulf of Maine, and this fishery is managed by the New England Fishery Management Council. There are several facets -- There's a lot going on in this slide, and I'm going to slow down a little bit, but there are several facets to this management procedure, importantly, related to status determination and separate calculations for setting catch limits.

I'm going to start and talk about how a single index of abundance can be used for status determination under NS 1, and, for overfished status determination, it says, if the recent average index, and so that's component of the time series where my cursor is, falls below a biomass index threshold, a pre-specified threshold, the stock is considered to be overfished. That's straightforward, and just a note here that the biomass threshold is not shown on the plot, and so, if you're looking for something to compare the recent to, it's just not shown here, but some determination has been made that some biomass threshold will denote overfished status, and the way overfishing status is determined is by comparing the recent average index -- I will just read it. Sorry.

If the recent average index, here, where my cursor is, falls below the previous average index, here, and so the recent past, by more than some pre-agreed percentage, overfishing is occurring, and so this simple management procedure is used to determine stock status.

There are some slightly different metrics that are used to calculate the catch advice, and so, in this case, ABC is calculated as the average catch -- The median average catch, divided by average index, multiplied by the recent average index, and so what we're essentially saying is that there is some acceptable long-term catch, and we'll modify it upwards or downwards, based on this recent average index. If the stock is doing well, the ABC goes up, and, likewise, it can be adjusted downwards as well.

In this fishery, the ACL is set equal to the ABC, and there is an ACT as well, which is intended to -- Which looks like it's about 90 percent of the ACL, and it's intended to mitigate uncertainties related to discards and landings, and so the key takeaway from this approach is that we're using a single index that is used to adjust the catch limits relative to changes in that index.

We get into a slightly more complex example now, with plaice in the Celtic Sea. This stock is assessed by ICES, and so we have a different management context here than the U.S. experience, but this is a particularly useful example, because it introduces this concept of a multi-indicator approach, where we can use more than one indicator, in combination with each other, to inform decision-making, and this is a bit like disassembling a stock assessment, where might think of all the components that go into a stock assessment that contribute to the likelihood component and that produce an estimate of stock biomass.

We can deconstruct that, in a manner of speaking, and use those pieces of information, in a structured way, in a pre-agreed way, but use all the pieces of information together to provide catch advice, and that's what is being shown here. I'm actually going to orient you to the bottom-left corner, and this is an equation. Essentially, what that equation is saying is we take the previous catch advice, and so that might be last year's catch advice, and we multiply it by something. In this case, we multiply it by three variables, m1, m2, and m3.

Those three variables pertain to different facets of the information that's being fed in here, and so, if we look at -- If you follow my cursor on the left side of the screen, I'm showing you the calculation of m1, which is essentially a ratio of the two most recent years of an index relative to the average of the three years prior, and so we're saying has the index changed recently, and, if so, we might be able to increase, or decrease, the catch limit accordingly, and this is simply intended to maintain stability of the stock over time, as tracked by the index.

There is a second objective here, which we define as variable m2, and that is to avoid low biomass. What's been done here is there has been a decision made that there is a lower-limit reference point, essentially, and that is referred to Itrigger, and, essentially, if that lower-limit reference point is crossed, it triggers an additional precautionary reduction in the catch advice, and, if we're above that limit, that lower limit, it has no effect on the population.

Then, finally, mean length in the catches, or the variable m3, is also used as a way to sort of very gently guide the catches towards MSY. The rationale here is that there is a target length, which could be considered a proxy for the mean length of the catch at MSY, and so adjustments are made accordingly, in terms of multiplying the previous year's catch, to increase or decrease it, relative to the length composition.

One of the other notes here, on this slide, is that not everything has to be set out as an equation, and there certainly can be additional supplementary rules, and, in this case, there is a cap on decreasing the catch. Catch shall be decreased by no more than 30 percent relative to the previous advice, and, likewise -- That is to reduce interannual catch variability, and, likewise, there is a cap on increasing catches, relative to the previous advice, by no more than 20 percent, as a precautionary measure, and so, again, I think these are aimed at stability, an important metric, likely, for the fisheries involved, but, again, the takeaway, on this slide, is really that there is an opportunity to integrate multiple sources of information.

The final example is the spanner crab fishery near Queensland, Australia. We return to a simple, one-indicator approach, and I'm going to start on the left side, with a plot, right, and we're simply trying to maintain a target biomass, through adjustment to the catch limits, and we've already sort of covered this, but the reason I wanted to include this really has more to do with what's happening on the right side of the screen and the additional conditions that have to be met, and I think this is

really valuable, because what's being said here is that, if there is an opportunity for an increase, based on the index, relative to the target reference point --

By the way, and let me just take a step back and say that the target reference point -- The index has been standardized to the target reference point, so that the target is always one, and so, if the index is above one, we're above the reference point, and, if it's below one, we're below the reference point. Okay, and so that will help us understand what's being explained on the right side of the screen. If the current index is above one, there is an opportunity for an increase, but it must also meet that second criteria, which is that the index in the current year must be greater than the index in the previous year, meaning there must be also an upward trend in the index.

There are also multiple conditions for a decrease that must be met, okay, and so, in between, if those conditions are not met, then there's no change, and so you aren't necessarily adjusting the catch limit year-to-year if it's just bouncing around the target reference point, and, in other words, it may be an opportunity to avoid chasing noise, or to reduce the risk of chasing noise, in the index, with the design of this rule, which I think is very clever.

There are also some additional regulations about minimums and maximums for the fishery as well, and I don't recall the details of how they came up with those numbers, but suffice it to say that we're provided quite a bit of additional details. If you're interested in any of these rules, the additional details are in the information booklet that accompanies our report. There are more details on how all of this is calculated.

Okay, and so, before we move to a discussion of a pathway towards MPs for black grouper, I have a few brief comments on MSE, or what is known as management strategy evaluation. I understand this group has quite a bit of experience with MSE, and we haven't provided a detailed briefing, but, for those of you that may not be familiar, MSE is a simulation process for evaluating management procedures before real-world implementation, and it may be sufficient to say that it is intended to examine how well management procedures could be expected to achieve fishery management objectives. That is the overall purpose of MSE.

I think that it's also useful to mention that it's just one of many tools in the fishery scientist toolbox, and so I think that's useful to keep in mind. There are certainly other ways to make good decisions. We think this is a useful approach, and, finally, just a note on the text on the left side of the screen. MSE has a lot of jargon, and so, very briefly, when we refer to an operating model, and this will come up later in the talk, an operating model consists of the fish population dynamics, the characteristics of the fishery, and the statistical properties of the monitoring programs that are used to simulate data collection.

A management procedure, again, a pre-agreed process for the combined -- For the combined facets of monitoring, analysis, and decision-making, and, when we refer to performance metrics, what we're usually saying is that these are things that can be quantified during MSE to illustrate how well a management procedure is expected to achieve fishery management objectives, and so I think, I hope, this is sufficient background for MSE, because we're not going to go too far down the MSE road in this presentation, but it is going to come up as we move forward.

I think that, to put a finer point on how you might consider MSE useful in addressing the black grouper challenge, it's twofold. First, we often think about interpreting the results of MSE for the

purpose of making decisions in the face of uncertainty, and that is not doing research to reduce uncertainties, but instead saying let's cope with what we have and can we make good decisions based on what we have, and so that is really, broadly speaking, purpose number one, decision-making in the face of uncertainty.

Conversely, this is an interesting aspect of MSE, where we can evaluate hypothetical improvement in data collection, and so this is the opposite -- This is the opposite purpose. This is the how can data -- Sorry. How can decision-making, under hypothetical improvement of data collection, be improved, and so we can think of MSE from those two perspectives, and there's a number of other perspectives as well, but those are the two that I think are worth highlighting here. What this really allows us to do is move from sort of implicit decision of the decision-making process to really explicit testing of that process.

The final note I have about MSE is in this very, very busy slide, and all I want you to take away from this slide is that there are three plots, with three titles, and each of those plots represents a different management procedure, and so it's not necessary, at least at the outset of engaging on MP design, to design a single management procedure. In fact, it's probably better to design multiple management procedures and let those management procedures run head-to-head and be contrasted against one another, perhaps through simulation testing using MSE.

This example, and, again, I'm not going to bore you with the details, but suffice it to say this is a real example from the rex sole fishery off the west coast of Vancouver Island, where Fisheries and Oceans Canada is considering which, if any, of these MPs might be suitable for their management needs, and they are subjecting these three approaches to simulation testing.

What I want to add here is that it is entirely possible -- I don't know where DFO is in their process, aside from the paper that reports this information, but my point is that MSE is, itself, kind of an iterative process of refinement and narrowing of management options, until something satisfactory emerges, and so I think that's an important thing to keep in mind, in terms of the work that is involved in carrying this out, and, in other words, what I'm saying is that MSE is a place -- It's an approach that we could use to iterate on MP design, until we get a place that feels justifiable, that feels defensible, and feels scientifically robust.

Okay, and so, at this point in the presentation, and I am nearing the end of the presentation, and this is the last section, and the idea here is now to shift into a discussion of viewpoints regarding viable pathways to designing and evaluating MPs for black grouper. This section reflects the viewpoints of us, the analysts, and we hope that it contributes to the discussion that will follow this presentation.

Again, this has been a long presentation, and so we've added one summary slide here, which basically says how did we get to this point in the talk, and, well, current data limitations make traditional stock assessment challenging for the black grouper fishery, right, and we've gone through that, and we think, or we're suggesting, that there is an opportunity to construct a pathway to overcome these current limitations, through thoughtful design of management procedures.

To support that discussion, what we have identified is potentially a step-wise approach with four stages, and we'll walk through each one of these. This is an overview slide, and then I'm going to go through each one of the questions on the left side of the screen in a little bit more detail, and so

we're going to start by talking about where are we now, the status quo, and we're going to talk about what can we achieve with current data, and we're going to talk about the alternative, which is what can we achieve with improved information, and then a related question starts to emerge, which is how do prioritize answering any of those questions? Our emphasis here was really to have a discussion about the possibility of transitioning away from status quo catch-only methods.

So where are we now? Well, I think that's obvious. We have catches. Are they reliable? Maybe not, and so a catch-based management procedure is the current pathway forward to catch advice, but there is no stock assessment, and that's where we're at today.

What can we achieve with the current data? Well, what this plot is showing is that most of the data streams available have been identified as being acceptable for use in stock assessment, and, likewise, we feel that they could inform the basis of indicator-based management procedures. Like some of the examples that I showed, and what was important about those examples was that none of them included simple demographic models, or what might be referred to as data-limited methods, and that's because most, and not all, and not exclusively, but many, or most, of the DLMs require a catch history, and so we may not quite be there yet, and so we think that indicator, or multi-indicator, based approaches are the most viable, with respect to the question of what can we currently achieve.

Now, if we move to the question of what can we achieve with improved information, that brings a lot of other options back onto the table, and so that could include model-based MPs, which, by the way, I mean those simple demographic models, and there's a bit of jargon here, but, basically, I'm referring to data-limited methods there, and, also, it brings stock assessment back into the realm of possibility, and so what I think this does is that it says we might -- Even if we wanted to improve data collection, we might want to still include indicator-based management procedures, and test those against options, and so it sets up an interesting contrast between what is to be gained by conducting a stock assessment, or, from another point of view, what is to be lost in the absence of a stock assessment, versus alternative approaches, and so there's something very fascinating there in the context of a research question.

Then we get to a little bit more complex problem of how do we prioritize a pathway forward, and so I would like to start in the middle of this plot, the tab that says "Design and Testing of MPs". With respect to indicator-based MPs, or what we could achieve today, based on the data we have today, I think the focus really is on the robustness of those MPs to key uncertainties and can they produce satisfactory outcomes, or can they lead to satisfactory achievement of management objectives, and so that is one pathway that you could prioritize.

If we move to the top, and it says "Improve Data Collection and Reliability", and so, under the management procedure paradigm of how all the pieces work together in a decision-making framework, you certainly could include stock assessment and consider what would happen if you had more accurate catch data, and, again, that opens up that interesting question of what could be gained, or lost, in terms of achieving objectives relative to simpler alternatives.

Then, finally, at the bottom of this slide, it says "Assess the Value of Information", and this is another research question that could be prioritized, and I think that it gets at tradeoffs, and it gets at this idea of what is the value of doing something more complex, versus doing something similar,

if that were even feasible, and it gets to questions related to data prioritization and if there truly are benefits of improving data.

The takeaway here is that there really are certain questions of prioritization of research, and, if you do choose to recommend moving forward with some of these approaches, it opens up the possibility of thinking about ways that we can move away from the current catch-only approach, and so, to bring it all back together, we return to this pathway slide, and we've tried to provide some simple, direct answers to the questions that are being posed on the left side of the screen.

Where are we now? Well, we are relying on catch advice, based on previous catches and expert judgment, or catch-only methods. What can we achieve with the current data? Well, we have to look at data-limited approaches, but those are potentially more robust than the status quo, and it creates the optics of promoting enhanced management procedures, by better utilizing the available data.

What can we achieve with improved information? Well, in that case, we could look at more sophisticated approaches, right? We can move into demographic models, and we could get back into the realm of stock assessment, and so there is some merit in thinking through that as well, and, finally, how do we prioritize that? That is really the question that is being left to the SSC, and that's certainly designing and testing MPs prior to implementation, and it seems like a priority to us. Evaluating them against different scenarios, by which I mean things like different states of nature, to understand their robustness, and potentially things like value of information, to understand whether the gains to be had by improving data collection can be balanced against the cost of doing so.

Next steps, and I only have one slide here, and this is my last slide, and this was essentially intended to be a coarse summary, or a stepping stone into the discussion that follows this presentation, and so what we think could be some useful next steps is the sort of ongoing need to communicate the concept of management procedures as a framework, as a paradigm, and share back this report, and the related materials, and, of course, we have started that here today, and I would certainly like the opportunity to share this presentation with the Gulf SSC, and, also, I think that there is valuable -- There is a need for stakeholder input, and that is always valuable, especially at the outset of a problem. As we're conceiving ideas here, it's very useful to get stakeholder input.

The second point, or the second question, is how do you construct a preferred pathway? That is really a key question for the SSC, and the way that I think about this is the examples we showed on the previous set of slides can be thought of as entry points to MP design. Where do you want to enter into the process, and how does that look, in terms of what would be needed, in terms of research to answer some of those questions, and then, finally, returning to this idea of MSE, if that is something that is preferrable, one thing that we recognize is that MSE is a really complex and involved process, and so it is often useful to compartmentalize steps in MSE, and so what we would suggest is that a first step in that direction would be to develop a thorough set of operating models, operating models being a description of the fishery, population dynamics, and the properties of the sampling programs used to monitor the fishery and the fish population.

That is a fairly involved task, and we think that would be a key starting point, and then moving forward from there, potentially, and so, Mr. Chair, thank you for the time to give this presentation, and I will pass it back to you.

DR. REICHERT: Thank you for that overview. It was very thorough. I kind of expect that some of the comments may easily merge into the discussion, and so, procedurally, I'm going to see if there's any public comments at this point, Judd, or, if anyone wants to make a comment, please raise your hand now.

DR. CURTIS: Okay, Marcel, and, Bill, thank you for the presentation. I'm going to take back control, so that we can put up our hands-raised list and see who has got a question, but I will have your slides on hand as well too, that we can refer to if people have questions on specific slides.

DR. REICHERT: Would that work for you, Bill?

DR. HARFORD: Yes, that sounds great.

DR. REICHERT: Okay. Thank you. I see no hands, and so let's proceed. Maybe we can open the floor for some clarifying questions, and then we can merge into the discussion and the action items. Any clarifying questions from the SSC? I have a few, but I will wait to see if any hands go up. Okay. While people ponder, I have a question, and it kind of goes back to the beginning of your presentation.

You mentioned, and that's laid out in some of the documents that we received, that SEDAR 48's main issue was the misidentification and the related issues to landings, or the landings data, but misidentification potentially affects other data streams also, such as life history parameters, and maybe length comps, and age comps, et cetera, and I know some of this was addressed in the data workshop report, and in your report, but can you comment on this, relative to the data quality slide that you presented earlier in your presentation?

DR. HARFORD: Yes, and so I don't have any -- I don't expect any concerns with misidentification, in life history in particular, and these are all scientific studies, and so there isn't an issue that I'm aware of.

DR. REICHERT: Okay.

DR. HARFORD: I'm happy to be corrected on that, and then, yes, the length composition, and I think -- Again, I actually could use some input on this as well, but I think we're talking about length composition. Yes, commercial length composition, and I think the biggest problem with misidentification, and the uncertainty that it creates in landings, comes from the recreational sector, and so I think there are -- I think there are correction factors. I think this is something to look into, Mr. Chair. I don't have a very clear answer, but I suspect that, or I would hope that, if the correction factors are trusted in the commercial landings, at least in the more recent commercial landings, that we could have some reasonable expectation of accuracy of the length composition, but I don't know that for a fact. That might be something to dive a bit deeper into. Vania, do you have anything else on that?

MS. HENRIQUEZ: My understanding is we have a misidentification in commercial landings and recreational landings. I know, in the recreational landings, there was a set of correction factors and calibration that was applied to those data, to that information, and that is all that I know, according to what I read in SEDAR 48 and other documents.

DR. REICHERT: To that point, was that after the halting of SEDAR 48, those correction factors, and, again, it may be in the report, but you may have to jog my memory a little bit.

DR. HARFORD: I believe the correction factors have generally been established, but I think there was -- Given the importance of recreational landings for this fishery, I think there was broad enough -- I don't want to speak for the analysts that were involved in that, but I think it generated substantial uncertainty, to the point that the issue of suspending the stock assessment was raised, and so I think it's more a problem with recreational, but, again, if someone knows a bit better than I do on this one, that would actually help us out.

DR. REICHERT: The reason I'm asking, obviously, is the uncertainty relative to halting the stock assessment -- We want to make sure that we address that uncertainty in the analysis that you presented, and that may have already been done, or not, but that was not entirely clear to me, and so that's why I was asking that question. Does that make sense?

DR. HARFORD: Yes, it's a fair point.

DR. REICHERT: Okay. Thank you. Steve, I see your hand up.

DR. TURNER: There certainly is uncertainty in the dealer reports on the commercial side, and you could use dockside sampling. Dockside sampling does do species ID within the dealer reports, but the sufficiency of that could be limited, based on sample size. Certainly recreational misidentification is probably important. Thank you.

DR. REICHERT: Thanks, Steve. Jim, go ahead.

MR. GARTLAND: Thanks. First, that was, I thought, an excellent presentation. Again, it was extremely thorough, and I just had a question on your twelfth slide, and it was one of the key uncertainty slides, where you were showing the different data types and the time series of data available. You know, if you were to move forward with all of this, and I'm looking at it, and it ends at 2015, and you would have access to everything through the most recent years, correct, just only because that's -- What you're working with there is already about ten years old.

DR. HARFORD: Yes, and that's a great point for clarification, and so our analysis was done just based on what was available up to -- That was included in the SEDAR 48 report, which was published in 2017, and so I think this was just the end of the time series that was intended to be used in that stock assessment, and I would also fully anticipate that whatever data has been collected since then, that we would have access to it, I would hope.

MR. GARTLAND: That's what I figured, and I just wanted to clarify, and I also thought it would be cool to see if the colors of the dots are starting to trend in any direction, as you get into the more recent years, and, again, I know that red, yellow, and green don't mean bad, all right, and good, but bigger sample sizes typically are usually better.

DR. HARFORD: Yes, agreed, and it is a ten-year gap, and so I take your point, and updating that would be useful.

MR. GARTLAND: But otherwise awesome job.

DR. REICHERT: Thanks, Jim. Any other questions related to the presentation or the material presented? I don't see any hands right now, and so we have two action items here, to review the black grouper MSE data inputs and modeling approach, and I would like to have a little more discussion on that, and then make recommendations to the analytical team, in particular any suggestions, or recommendations, on how to proceed and any concerns with the options presented, and, Bill, I think you mentioned some of those at the end of your presentation, also.

I would like some thoughts, of the SSC, relative to the data inputs, and also relative to the modeling approach, and so would anyone -- I would like to open the floor for anyone who would like to make a suggestion or has any questions relative to that. Relative to some of the modeling approaches, would the SSC like to see perhaps concentrating on one approach? I think Bill mentioned, earlier, that perhaps one option is to compare the various management procedures, to see how they fall out, and is that, for instance, something the SSC would like to see? Anyone? What's the pleasure of the group? Jim.

MR. GARTLAND: I guess, just to clarify, are you asking do we want to see like multiple indicator-based MPs be compared, or are you asking which ones do we want to see compared, because the answer to that, for me, would be, yes, for the first part, and the second part is I'm not entirely sure which ones would be the most appropriate to explore, and how you would -- For those that are threshold-based, how you would come up with a threshold.

DR. REICHERT: Well, exactly, and that's what I would like to see some discussion on, and so I agree with your point, but, as I said, I would like some input from the SSC, in terms of what we would like to see and what are the potential weaknesses and strengths of some of these approaches, and I agree with you. One of the questions I had, relative to -- I need to look at my notes real quick here, but, Bill, you mentioned trends, and, you know, there were a variety of periods that were used, five years, three years, two years, and we've discussed, in the past, using our ABC control rule, especially the species, or the stocks, that have the least amount of data, the so-called three-year average, which is, I believe, no longer considered -- The three-year average of landings, which is, I believe, no longer recommended as the best scientific information available.

Similarly, you know, you mentioned recent, as in recent index of catch, and, again, there were some -- A variety of years that were used, and have you guys thought about what periods to use? Does that depend on the management procedures that you are considering? Can you comment on that?

DR. HARFORD: Sure, and I can provide a couple of comments on this. I think one answer to your question reflects thinking about reference timeframes and aligning those with your objectives, and so, if the view is that the fishery is in a reasonably good place now, then you might consider the objective of maintaining stable biomass relative to the last several years, versus the fishery is not in a good place now, and let's look at a more historical state, and try to return to that.

It does -- There is some context there about objectives and thinking through reference points, but, in regard to your specific question about averaging data points over windows of time, I think there is also a related question about life history here and the variability, or interannual variability, we might expect in some of these indices.

That certainly could be related to life history and recruitment pulses and things of that nature, and it could also relate to the precision with which the indices are measured, and so it becomes a statistical problem, and so, to give you a little bit of a direct answer, it's I wouldn't necessarily -- I wouldn't think you would need to make any conclusions about windows of time yet. I think what you might do is you might recommend exploring different windows of time in an analysis, to understand their effects.

DR. REICHERT: Thank you. I was just making some notes there, and so -- Jim.

MR. GARTLAND: So you just mentioned that maybe we should think about which indicators we might want to consider exploring. To kind of guide that discussion, would it make sense to look at Slide 11, where it shows the different data types that were considered in that SEDAR 48, and which ones we have more confidence in, and which ones we have less, and maybe start our focus on developing indicators for those for which we have more confidence, as I say it with less confidence.

DR. REICHERT: Well, you know, especially the last three, and that kind of started my thinking about the identification issue, because they're listed as good quality, which almost seemed to indicate that the identification issues were resolved, because, Bill, you mentioned those were most significant in the recreational fishery, and we've got MRIP, and then the reef fish visual census, and there may be better ID in that one, and then the headboat survey -- I am not entirely sure what the extent of the misidentification was there. I forgot if there -- In the data workshop report, if there were any -- Well, you haven't listed them here, and so I don't -- I assume there were no fishery-independent indices available, correct?

DR. HARFORD: Just the RVC index.

DR. REICHERT: Yes. Okay.

DR. HARFORD: But you're right, Mr. Chair, and you hit back on the issue of is the misidentification being propagated to other data streams, and I think that's something that we need to explore a little bit deeper. Sorry that I don't have a strong answer on that one, but that does seem like a priority, to explore whether the problem propagates elsewhere, because, if the answer is yes, then we have some real problems to deal with, or some other problems to deal with.

DR. REICHERT: Yes. I made a note to that for our report. Steve.

DR. TURNER: I would think that the identification coming out of the commercial sampling would be pretty accurate. These are trained people, and I think we could ask the headboat people about their dockside sampling as well. You know, then you have questions about indices of abundance, and I'm not sure what you would get out of the indices in the headboat, because I think that's being recorded by the mates, but many of them, I think, know their species, but that would have to be verified, especially for these two animals, and so, once again, I think the dockside sampling probably is done by people who are well-trained. Thank you.

DR. REICHERT: Thanks, Steve. Anyone else, to that point or other data inputs and modeling approaches? Joe, welcome to the webinar. Go ahead.

MR. O'HOP: Steve's points were very good, and there is some question about the value of the catch indices out of the headboat survey, especially in the historical portion of the time series, and there may have been -- Well, there are some questions raised, by the captains, as to how good that throwing out those logbooks actually were, but dockside sampling should be reasonably good, from the training that the headboat samplers receive.

The MRIP sampling, prior to 1991 -- In around 1991, there was an increased focus on data quality, and, you know, the quality of identification by the samplers, and so probably, before 1991, you know, some of the IDs may be more questionable. I know, when we took over the survey, we spent a lot of time with our samplers, to make sure they knew how to separate out the various fish species, including black grouper from gag, and so that should be better.

In the commercial trip ticket program, you've got some variation, based on the reporting by dealers, and, if it wasn't worthwhile for them to -- If there wasn't a price differential, a lot of times, they would call things -- Especially gag grouper they would call black grouper, simply because the name sounded better, and so I think that's -- We've tried to correct a lot of the commercial time series, to try to reduce the amount of reporting of gag as black grouper by our dealers, and, in many cases, it's actually a code difference. Even though, on their own trip ticket, they may say black grouper, the code is for gag, for example, and so we have done a fair amount of work with our dealers based on that.

As far as life history characteristics, black grouper being a protogynous species, we know very little about that age of transition, and we have just a very few number of specimens that were in transition at the time of sampling, and it occurs at ages greater than ten, and probably more like fifteen, and so we don't have a good handle on, you know, what that transition size and age is at transition, and we also don't know what the sex ratio is, and so that's something that we only get from probably something onboard, because a lot of the fish are gutted at-sea, and we have a difficult time figuring out whether it's male or female.

In the past, that was sort of inferred based on size, but, physiologically, it may be necessary to look at the gonads, to make sure that we're truly classifying -- You know, distinguishing between males and females, and so that's it. Thank you very much.

DR. REICHERT: Thanks, Joe. That was very helpful information. I really appreciate that. Bill, you, or your group, may already know some of that, but I hope that was useful for you guys also, because that does come back to, you know, what do we know about some of the other life history parameters, and you have the transition, where you have medium quality, but thanks again, Joe. That was very helpful.

DR. HARFORD: Yes. Thank you.

DR. REICHERT: I see no hands, and so do we have any suggestions, or recommendations, on how to proceed? Bill, you addressed some of that in your last slides, and are there any suggestions that you may have, or any specific questions you have relative to that to our SSC? What is your priority for next steps?

DR. HARFORD: You know, I think, for us, the interest lies in indicator-based MPs. I did not want to lose the plot by ignoring the importance of stock assessment, or potentially improving data to get to a stock assessment, of course, but I think, in terms of the shorter-term priorities, moving away from catch-only -- From setting catch limits according to catch-only methods, there is some promise in the indicator-based approaches, particularly multi-indicator approaches. I think that would be a priority, for us, or I guess a recommendation from us, if we could put it that way, multi-indicator approaches.

DR. REICHERT: I would definitely support that. Jim.

MR. GARTLAND: I was just going to say that I would agree with that, and, again, I will reiterate I think that Slide 11 would be a good guide on which indicators to develop, but I think, first, we should just, as we've been talking about, make sure the green dots really are the green dots, before we go forward, at least too far.

DR. REICHERT: Yes, I agree. Anyone else? Steve.

DR. TURNER: I would think that there could be some information, at least in the size composition coming out of the commercial fishery, and maybe the headboat fishery as well, and, you know, clearly you would not want to see a great decline in the sizes available, especially with something as complex as this life history, and so I think that might be also another indicator, though, of course, some of the index-based indicators, CPUE-based indicators or whatever, would be of great interest. Thank you.

DR. HARFORD: Can I add to that?

DR. REICHERT: Absolutely.

DR. HARFORD: I think that's a really great point, in terms of what indicator-based approaches, or multi-indicator-based approaches, get us, and that is, in situations like this, where we can only glean a little bit of information from each data stream, how does that data stream contribute, and Steve just gave one really good example of that, and I think the idea of multi-indicator approaches is that, if you can ease out that little piece of information that each indicator brings to the table, the idea is then to bring the indicators together into some kind of structured framework, whether it's an equation, whether it's a set of if-then statements, but I think you see what I'm getting at, that each piece of information contributes, hopefully, to providing a reasonably clear picture on which you can base a decision. I think that's the power of the multi-indicator approach.

DR. REICHERT: Thank you. As you -- I thought Judd mentioned it also, but I think, as an SSC -- I think, for us, it's good to realize that, ultimately, the thinking is that this approach is going to be -- We are going to be asked to use this approach to provide management recommendations to the council, and particularly setting ABCs, and so that's why this is pretty relevant for us, when this comes back to us, because that's what we are going to be using, potentially, as setting ABCs, and that's correct, Judd?

DR. CURTIS: Yes, that's correct, and so, you know, we're hoping that we'll probably see another iteration of the development of the management procedures that have been selected, and which indicators, later downstream, in another presentation by Bill and his team, and, eventually, similar

to what we're seeing with the snapper grouper MSE, more chances for the SSC to provide input, and then, ultimately, they will be seeing the final product, and making management recommendations for catch levels based upon that product.

DR. REICHERT: For black grouper, is there a timeline for that? I wasn't sure what the current timeline is, or when the council needs that from us, or whether there is a deadline for that or not.

DR. CURTIS: I don't know the answer to that, and I don't believe it's imminent. It's still in initial development, but maybe Bill knows more than I do on the potential timeline from FWC on when they expect a final product.

DR. HARFORD: Unfortunately, I don't have any information on that.

DR. REICHERT: Okay. You mentioned potential -- Presenting this to the Gulf SSC, and is that something that was -- Is that scheduled yet, or that is just a recommendation, or a thought, that you had?

DR. HARFORD: It's not scheduled. It's not scheduled yet, but it's just a thought that I had. I would certainly like to talk to them.

DR. REICHERT: Okay. Absolutely. Dustin, go ahead.

MR. ADDIS: We were originally -- Well, on the SEDAR schedule, we were scheduled for black grouper to be completed by 2026, just to give you guys a ballpark.

DR. REICHERT: But, to clarify that, is that a stock assessment, or is that the results of this analysis?

DR. ADDIS: I mean, clearly, it's listed as an MSE on the schedule.

DR. REICHERT: Okay. I see Luiz has his hand up. Luiz, it's good to hear from you. Go ahead.

DR. BARBIERI: Thank you, Marcel. It's good to hear your voice as well. Just to clarify a few points, as, you know, Bill discussed, this went through the SEDAR process, and, you know, the last time, in 2017, SEDAR 48, and that assessment process had to be aborted after the data workshop, because the workshop panel, at the time, felt that there were too many uncertainties that couldn't be resolved, too many issues, and that would not lead to a reliable model-based stock assessment.

Since then, right, red grouper has not really had any refreshed management advice, no analytical process in place for management advice, and so, a few years back, this discussion -- Because black grouper is very much a Florida fishery, primarily the Florida Keys, but spilling into some of the Gulf as well, and, during the SEDAR Steering Committee process, the councils had requested an analysis, you know, a redo of the assessment, and we put this on the schedule, and then, eventually, conversations, and discussions, with all the people involved led to this idea that trying to do another assessment would not be productive, and we would end up in the same place that we ended up last time, and so that we should explore some additional types of analysis that could be done to handle black grouper.

That was then added to the SEDAR schedule, as Dustin pointed out, for completion, tentatively, by 2026, and it's something that is included, and Julie may clarify this, when she comes on, but it's included there just as an information thing, and this type of analysis is not being conducted through the SEDAR process, and it's a separate kind of process, but it's there so that everyone knows that it's taking place, and that it can be used for management advice to the councils, and so this step here, right, was really Bill and his team doing this -- Preparing this overview of the potential ways forward, identifying the main issues.

Then, instead of proceeding unilaterally to develop an MSE-type of analysis that could be used, you know, to generate some level of management advice, hopefully, it would be to check with the SSCs, both the South Atlantic and the Gulf SSCs, and give the SSCs the opportunity for input and engagement into this process.

If there is something now that you have concerns, or that you would like to make recommendations, or that you feel that is a sense of direction where you would like the analysis to go, this would be a good time for you to present those suggestions, or recommendations, because that would inform Bill and his team on the next steps, which would be as we proceed towards an MSE. Marcel, I hope this helps clarify the process and timelines, et cetera. Thank you.

DR. REICHERT: Thanks, Luiz. I think that was very helpful, and thank you for that, and that was exactly why I was asking the question about the timing and the potential future presentations and opportunities for our SSC, and, of course, also the Gulf, to provide comments, because of that potential 2026 timeline, because, you know, it is already -- I think that will come up quicker than we think. Julie, I saw your hand up, and maybe you have additional comments. It's good to hear from you. How are you?

DR. NEER: I'm good. I'm at the red drum review workshop right now, but I heard my name, and so here I am. Luiz said most of it, but I just want to make two quick points. Currently, the plan is to have -- Once this is done, to have some sort of review through the SEDAR process, SEDAR providing a review workshop of sorts to review this, and what that's actually going to look like -- We'll figure out if it's going to be subsets of the SSC or just a CIE review or what, and we're not sure, but that is currently the intent, to do something along those lines.

I just want to point out, to refresh everyone's memory, that black grouper, like all the Florida stocks, is a jointly-managed stock, and so, ultimately, both SSCs will weigh-in on the usefulness, which is why Bill and team are going to go to both SSCs, to get feedback throughout the process from both SSCs, and then they're producing one assessment that ultimately will provide management for both regions, is currently the thought process, and so I just wanted to refresh everyone's memory about how we handle the Florida stocks that are basically in south Florida. Thanks.

DR. REICHERT: Thank you, Julie. I appreciate that.

DR. CURTIS: To that point, I think it would be helpful, for maybe the next iteration of this, that we actually do a joint review with the Gulf, once they've had a chance to see it as well, knowing that, ultimately, it's going to be a combined panel of both the Gulf and the South Atlantic SSCs that will review and make management recommendations, and ABCs, on the final product.

DR. NEER: Judd, I would agree with you. We had hoped to do all of these stages combined, but both SSCs just had too much on their plates to make this first stage happen, but I think, before they go to final, we should definitely have a joint something, before they try and finalize things, before the review, and that's the goal for SEDAR.

DR. REICHERT: Yes, and I fully agree. I think that would cut short a lot of the potential for issues, and so I completely agree that that would be very useful, a webinar, or a joint meeting, with the Gulf of Mexico SSC, and so thank you for that. Joe, go ahead.

MR. O'HOP: To that point, because it's basically two regions involved, if one were to generate indices, they could be generated separately for each region, and there could be different types of indices, or different kinds of management targets, for each of those regions. You know, for example, the black grouper IFQ in the Gulf would not apply to anything on the South Atlantic. Also, if there were specific types of indices, and like we used a total catch index for black grouper for the recreational fishery, that could be the same in both regions, and so, you know, it could be a mix and match of different types of methods within each of those regions, and it's whatever is suitable. Thank you.

DR. REICHERT: Thanks, Joe. That brings up a really good question for Bill, and so, when you are going to approach this, are you going to approach it as by stock or by region? I am just trying to wrap my head around how this would work, since it is a jointly-managed stock, but you have different data streams. Julie, maybe, to that point, before I ask Bill to reply.

DR. NEER: So our intent was not to run these as separate. The data was not ever discussed as a two-stock model before, and so I don't necessarily, and I'm sure Dustin and Luiz could weigh-in, but I don't necessarily think that's something we should start considering at this point, because then we have to go back and look at other different life history information for each region, and is there different whatever for each region, and the data was never compiled in that fashion.

That's not saying that we can't do it, I guess, if something -- If that's something that -- It is a jointly-managed stock, and so that's not necessarily needed, and so I guess it's really up to the SSC. If you want that to be investigated, then we would have to go back and investigate all the data, and splitting it up into Gulf and South Atlantic, and even having a conversation on where that split should occur, and so I guess you guys should talk about whether you think that's needed. Luiz is raising his hand.

DR. REICHERT: Well, and I understand, and I wasn't necessarily proposing to do that differently. Based on what Joe just said, my question to Bill was, you know, how you approach that, in terms of are there data streams that are different in the South Atlantic and the Gulf of Mexico, as Joe indicated, or other aspects of this analysis that are different in the Gulf of Mexico and the South Atlantic, and does that complicate the analyses, or not, and so, before I go back to Luiz, Bill, maybe you can comment on that, and maybe this is not an issue whatsoever for you guys, and you have always approached this kind of as one combined stock.

DR. HARFORD: Sure, and I think that the place to start, probably, is one combined stock, and then you're doing something that is scientifically defensible with respect to more or less the geographic extent of the biological population. For me, one stock is a place to start, and, if there

happen to be subsequent allocation questions, that's fine, and I think we can get there, but, to keep things simple, I think I would probably start with a single stock.

DR. REICHERT: Yes, and that's what I thought, but you guys haven't run into issues, in terms of significantly different data streams between the Gulf of Mexico and the South Atlantic, and that may throw a wrench in your approach, and you haven't encountered that?

DR. HARFORD: We haven't got that far in our process, to be honest with you, and so, yes, I think it's another one of those things to add to my list of items to check up on before we proceed.

DR. REICHERT: Okay. Thank you. Thanks, Joe, for bringing that up. Luiz, I know you've been waiting. Go ahead.

DR. BARBIERI: Thank you, Marcel, and Julie and Bill have already brought up the main points that I wanted to make, and so one is, yes, ideally, we would handle this as a unit stock type of analysis, or course, for obvious reasons. Having said that, there is the issue that some of this analysis may be valuable in providing management advice, right, on how to handle quotas, maintaining the stock at a level of harvest, or catch, that is sustainable, but not necessarily providing stock status determination, right, and those may not be able to -- Those processes may not be able to get us there.

In that case, it might be that, you know, looking at what may be applicable to the South Atlantic area, given the data streams that are available there, for example, and, if we're going to use an indicator-based approach, index-based, you know, what types of surveys and other data do we have to inform those indices between the South Atlantic and the Gulf, and so you might use different approaches, simply because of the different data streams available by area, right, since those are two different jurisdictions, but I wouldn't get at that point, unless, you know, the SSC itself, and this is the opportunity for the SSC to weigh-in and say we would like to see it handled this way, versus this other way, and, I mean, what we are looking for here is guidance from the committee on how to proceed.

DR. REICHERT: Thank you. Any SSC members that have any ideas, or comments, relative to this recent discussion? Currently, on the books, the place to start is one combined stock, but investigate the potential complications of possibly different data streams between the Gulf of Mexico and South Atlantic, and see if that creates complications in the analyses and the approach and recommendations. At least that's my translation of what we just discussed. Any thoughts? Seeing no hands, and we'll come back to this in a little bit, but I propose that that will be our recommendations currently.

DR. CURTIS: Marcel, I've been jotting down some of the notes from the discussion, and I'll bring the overview document over, and we can review and see if there's any additions to be made.

DR. REICHERT: Yes, please, and that was actually something that I was going to suggest. Bill, I hope that you are able to stay with us while we're doing this, because, in the end, I would like to ask you, and your team, if that guidance that we are providing is sufficient for you to move forward.

DR. HARFORD: Yes, absolutely. I'm happy to stick around.

DR. REICHERT: Okay. Thank you. Also, we may have -- There is always the possibility that additional questions, or comments, may come up, and so I appreciate you hanging around with us here. Judd, I assume you're still working on that transition?

DR. CURTIS: I'm sorry. I forgot to make my screen go live. Here it is.

DR. REICHERT: Okay. Let's read through that. I think those were the main points, and I think we extensively discussed, you know, how the potential misidentification affects the other data streams, and I think Joe made some comments, and I think others did too, and these were particularly relevant early in the time series. MRIP, there was some focus after 1990 to increase the identification accuracy. Then we may want to add too that some of the uncertainty may be related to the fact that we know little about age at transition, and we have very little information about sex ratios, and so those are some life-history-related uncertainties.

To that first bullet point, begin with a one-stock model, as an initial approach, but we noted that the data streams between the South Atlantic and the Gulf of Mexico may have a different nature, and there may be potential complications, and I think Bill said that that's something that he would need to -- That he and his team would need to investigate, and I'm just going through my notes, and I hope others do the same. I think that first sub-bullet, under the second bullet, may be -- Okay. Do you think that may be better under that first sub-bullet of the first main bullet, and just move it up?

DR. CURTIS: I can do that.

DR. REICHERT: Yes, and we can wordsmith that later a little. Then, for the multi-indicator management procedure approaches, I think Jim mentioned that Slide 11 would be good guidance, and the data overview would be good guidance for that. Would it be good, Judd, to add, below here, kind of the timeline that we discussed, or is that maybe something that doesn't need to go in our report, in terms of, you know -- It may be good to list here that we agree with a joint review with the -- A joint review with the Gulf of Mexico SSC before this goes to the council, or something like that, and that's usually the review strategy.

Okay. That's all I had. Does anyone else have any notes, or additions, to this first draft of the report? Bill, is what we have here sufficient guidance for you? Would you like to have more detail? Is this something that you guys can use for your next steps?

DR. HARFORD: Absolutely, yes, and I really appreciate the guidance here, and I think it's clear, and I think everything you've recommended is feasible, just looking through it. I think these are great recommendations, and I really appreciate it.

DR. REICHERT: Okay. If you have any further questions, don't hesitate to let us know. We are coming back to this, later this afternoon, probably briefly, but, if any -- If you guys need any clarification in the future, just let us know. Judd.

DR. CURTIS: Thanks, Marcel, and, to Bill, you know, as you're developing these management procedures, and specifically I think Jim mentioned, you know, those data streams that you've vetted so far only go through 2015, but we'll go through the exercise of bringing them up-to-date, to the most terminal year, but, if there are holes in those data streams, I think getting input from

the various advisory panels in the South Atlantic, and the Gulf of Mexico, would be a valuable exercise as well. In the South Atlantic, we provide fishery performance reports, based on what the observations are on the water, from advisory panel and stakeholder members, and that's -- You know, that's a critical component of some of those MSE processes, and it would be something definitely useful to consider, I think, moving forward, especially to fill some of those data gaps.

DR. REICHERT: Thanks, Judd.

DR. CURTIS: I can absolutely help -- We can help kind of liaise between, you know, our advisory panel and your group as well, moving forward, if that's something that you would like to present to them.

DR. HARFORD: Terrific. Thank you very much.

DR. REICHERT: Thanks, Judd, and it may be good to add that one of the bullet points is that we recommend updating the data streams. We talked about that earlier, and that was something that Bill also mentioned that he was going to do, but it would be good to have that in our report, because of the age of the terminal year of the -- That was discussed in SEDAR 48. All right. Thanks. Okay. One last chance. Anyone else have any comments or additions to this report? Seeing no hands, I assume that, Judd, that was just a leftover from your previous comment, your hand? Okay.

Bill, thank you so much for that very thorough overview. I really appreciated that, and it made a lot of things much clearer for me, and also to you and your team and everyone else who participated and contributed to this analysis, and I'm certainly looking forward to the next update, and I know I speak for the rest of the SSC also, because, ultimately, as we said, this will be used by us to provide management advice to the council, and so thank you very much.

DR. HARFORD: Thank you, and we're happy to contribute.

DR. CURTIS: Bill, just procedurally, how this will work with the report is the SSC members will have a chance, for the next two weeks, to add anything additional, and then we'll have a final report, and I'll make sure that you get a copy of that, so those recommendations are passed along to you and your team.

DR. HARFORD: Okay. Understood.

DR. REICHERT: Again, thank you, Bill, and thank you to everyone else. Okay. It is 3:00. I propose a ten-minute break, and then we'll move on to the SSC Workgroup and SEDAR Panels and the remaining agenda items, and please put your hand up when you return from your brief break. Thank you.

(Whereupon, a recess was taken.)

DR. REICHERT: All right. I think we have most of the folks back online, and let's get started.

DR. CURTIS: Okay. I'm ready to move on if you are.

SSC WORKGROUP AND SEDAR PANELS

DR. REICHERT: Yes, I am. Our next agenda item is SSC Workgroup and SEDAR Panels. We discussed this at our April meeting, to take a look at that and see if there are some changes needed, some updates needed. In preparing for this, I thought it was very useful, and very good, to take a good look at it. Judd will provide an overview, and let's follow that by public comment, before we address the three action items, and so, Judd, take it away.

DR. CURTIS: All right. Thanks, Marcel, and so you will see, in your overview document, that we have two action items, or three, two-and-a-half, to discuss, as far as the SSC SEDAR appointments and workgroups are concerned, and the first thing that I just wanted to bring up was your first document in the briefing book, 6a, which is the SSC workgroup approach.

This was developed, and approved, in December of 2016, and it really hasn't gone through any changes, or edits, or updates since then, and so we thought it would be prudent to do a review and make sure that this captures how the workgroups have been operating, if there have been other deficiencies in how it's been operating, or suggestions for improvement, and mostly just conceptually. If there's any kind of editorial stuff, you can just send me some of your edits, but just a global discussion, if there's any improvements to the workgroup approach that SSC members want to suggest, or recommend, in how we conduct workgroup business in the future, and so I'll pause there, Marcel, to see if there's any input from the SSC. Marcel, Amy has her hand raised.

DR. REICHERT: Sorry. I was muted, and so whatever I said earlier you guys did not hear, but, Amy, go ahead.

DR. SCHUELLER: I guess one of the things that I think happens with workgroups, frequently, is that there isn't necessarily a statement of work, meaning tasks outlined that the group is expected to do, and I'm just looking through this 6a again, to see if it's in here, but I don't see it, and so I guess I wondered if the group wanted to maybe make some modification to this process, to have a more formal statement of work for some of these workgroups, because I think that might be one of the reasons that some of them don't get off the ground.

DR. REICHERT: Yes, and I would argue, in addition to the scope of work, a clear timeline, including deadline of reports to the full SSC, and that would probably be good to add too, and so specifically mention the scope of work and the timeline, and so I agree with that, and so we can add some of that language in there. Genny.

DR. NESSLAGE: I think we've had -- I know I've worked on several of these, unless I'm thinking about the wrong type of workgroup, but I guess I'm wondering which recent ones didn't have these, and am I really confused about what we're talking about?

DR. REICHERT: No, and I think you're completely right. That is just not specified in the SSC workgroup approach, and so that's why I think Amy, and myself, and others, suggest to add that in the formal approach document, but we have done that, and so that's, I think, why we are mentioning it, and not that that wasn't done. Does that make sense?

DR. NESSLAGE: It does, and so I guess I was taking -- If that's the case, and we're all talking about the same thing, then I guess I would disagree with Amy, in that the reason they haven't taken off isn't because statements of work weren't formed, and it's that they -- I thought it was because they weren't approved by the council, and weren't prioritized, and so -- And I thought that's where some of the angst about these groups was coming from.

DR. REICHERT: Yes, and I don't want to speak for Amy, and what I was thinking about that was more like the, quote, unquote, older working groups. Amy, to that point?

DR. SCHUELLER: I may not be aware of ones that were not supported by the council, because that doesn't always get reported back to us, and so maybe that's something to consider, but one of the things I was thinking was I think we had a joint workgroup that we were supposed to do with the Gulf of Mexico SSC, that I don't think had a statement of work, unless I just missed it, and I do think a lot of the recent workgroups do have statements of work and timelines, but not everything, and so I just -- My thought was formalizing that process would be useful, and perhaps we could recommend that, if workgroups are not supported by the council, that that be reported back to the SSC, just so we're aware, because, a lot of times, these workgroups are coming from us, at least lately.

DR. CURTIS: I will chime-in. Like sometimes -- Some of the workgroups we absolutely had kind of a more formal, and explicit, statement of work, with tasks and a timeline attached to it, and then, other ones, we simply did not, and so it wasn't specified in that 6a document explicitly, and so that's something that we could make a modification to, to recommend that they all do include some sort of statement of work, along with a timeline be attached.

DR. REICHERT: I agree, and then, you know, I think you had that both a scope of work and a timeline should be -- Because I think the approval -- There isn't much language in here relative to the, quote, unquote, approval of the council, correct? This just says SSC leadership and council staff decide if an analysis is likely to require a workshop approach and then propose an SSC leadership team, composed of the SSC chair, vice chair, former chair, and my recommendation is to always -- To add the SEP chair to this group also, because we sometimes don't realize that there are socioeconomic aspects of the analyses, and I think that would be valuable, to have the SEP chair chime-in, even though, at the onset, it may not look like there is much socioeconomic aspects in there.

Then perhaps -- That's a recommendation I had, and perhaps it would be useful to add the council representative to the SSC to this team also, because -- I initially said that because it doesn't look like there is a formal approval of -- At least it's not in this document, I think, but a formal approval of the council needed for this workshop approach, and, if we feel that that's necessary, then that should probably be added, if that's the council's intent, to have them ultimately approve these working groups, which doesn't seem unreasonable, but I don't necessarily see that in this document. Judd, I may be wrong.

DR. CURTIS: No, I don't believe that's included. Marcel, to clarify, you wanted to modify the language to include the SEP chair to the workgroup planning committee, or whatever that's called?

DR. REICHERT: Yes, and I think it's called the SSC leadership team, to propose an SSC leadership team for working groups, and it may be good to specify that that's for the working groups.

DR. CURTIS: Okay, because our SEP chair is part of the executive committee, but --

DR. REICHERT: Yes, but the current language is, and I quote, for social and economic analyses, the SEP chair will be included in this group, and my recommendation is to include the SEP chair at all times, because sometimes we miss the fact that there are socioeconomic aspects of an analysis in the scope that we propose for a working group, and does that make sense?

DR. CURTIS: Yes.

DR. REICHERT: Then this is something -- Genny, I see your hand is up, or is that left over from previously?

DR. NESSLAGE: No, and I have two things that I wanted to say now. To your --

DR. REICHERT: Go ahead. Sorry,

DR. NESSLAGE: No, and it's great. To your point about the SEP chair, I would encourage it to be an SEP member, just because -- Or some other appropriate socioeconomic person, because, obviously, these folks have very different expertise, and, depending on the issue, we might want different membership, and so that's just -- A representative would be great.

DR. REICHERT: Can I comment, real quick, to that one?

DR. NESSLAGE: Yes.

DR. REICHERT: I am just proposing this as the leadership team, to look at if a working group approach is required, and so not necessarily as a member of the working group, and does that make sense?

DR. NESSLAGE: Yes, and why don't you just say the ExCom, because then you have --

DR. REICHERT: Okay.

DR. NESSLAGE: Right?

DR. REICHERT: Yes, and that's fine, and I just wanted to make sure that the SEP -- The current language is that the SEP chair is only included if it's about a socioeconomic analysis, and I wanted to delete that and include that SEP chair in the team always, and so that's basically what you're saying, is the ExCom, and that's basically the ExCom, yes. Okay.

DR. NESSLAGE: Yes, and so, yes, definitely delete it, and just say ExCom, and then you have representation. The other thing that is -- Maybe my memory banks are not great, but I vaguely remember that there were working groups that we formed statements of work for, and you go back, and it's very time consuming, going back and forth, and they can be pretty, and rightfully so,

detailed, and then it goes nowhere, and so what I would really like to see with this is the addition of some process where maybe a short proposal -- When the SSC says, boy, we should really form a workgroup to deal with this issue, that we, the ExCom, which doesn't include me anymore, draft a short, half-paged thing with the why the council would want us to spend our time doing this and how it would benefit the council and our working as an SSC.

Have that approved, or not, by the council, and, if that idea is approved, then we develop the big, long statement of work, with all the details and the timelines and everything. It's a lot of work to develop those statements of work, and so that would be my recommendation on process. Thanks.

DR. REICHERT: I think that would be useful, and I think that could be a separate bullet point under the SSC leadership and council staff decide if an analysis is likely to require a working group approach, and so we can definitely provide some language there. I agree that a -- You know, that a brief justification would help the council to decide whether they agree with it, and then it would guide drafting the scope of work. Jennifer, I see your hand up. Was that it, Genny?

DR. NESSLAGE: Yes. Thank you.

DR. REICHERT: Okay. Jennifer.

DR. SWEENEY-TOOKES: I'm unable to see what we're typing right now, and sorry. This is my kid pickup time, but, Marcel, I wanted to really thank you for suggesting this inclusion. I think you're right that, a lot of times, we don't realize that there is a social or economic angle, until we really get into the meat of some of these topics, and I really appreciate Genny saying, well, hold on, does it always have to be the chair, and, if we're going to go with ExCom, then that make sense. If we're not going with ExCom in the document, then we really might want to do what Genny was suggesting and say a member of the SEP.

There are times that, you know, Christina, or I, or some of the other non-economist social scientists might be more help, and there's other times that an economist might have a better perspective on what we need, and so, if there's any flexibility for that, then we might want to write it that way, but I'm also comfortable moving forward with just the ExCom.

DR. REICHERT: Thanks, Jennifer. I think you make a good point, and we could certainly say to add the SEP chair or other appropriate SEP members, and I think that would be good, to add some flexibility there, and so we'll add that to the language. Thank you.

DR. SWEENEY-TOOKES: Awesome. Thank you.

DR. REICHERT: I have got two questions. One of the recommendations that I'm going to make is that the working group chair will report progress and actions and discuss possible adjustments to the scope of work and timeline to the SSC, during at least every in-person SSC meeting, and, where appropriate, at SSC webinar meetings, and that's basically to kind of keep a check on what's going on, and maybe we can then decide, well, there was no action in this particular working group for a long time, and maybe we should make some adjustments, or reconsider the working group, and I'm not sure, Judd, if that is something that we should add to this document, or we can just, as an SSC, decide that that's how we want to approach reporting to the SSC. Do you have any thoughts on that?

DR. CURTIS: I think it would be good to include that in this document that we're revising, the workgroup approach document, to highlight those expectations for workgroup chair members, and, like you said, it doesn't have to be a thorough update. If no work has been done, it can be as simple as that, and we move along.

DR. REICHERT: Exactly.

DR. CURTIS: But just to keep everyone abreast of what has transpired at each of the workgroups.

DR. REICHERT: Okay. Then I recommend adding that language, or propose that language, to the document. Then another question I had -- Jennifer, sorry. Your hand is still up, and did you have another question?

MS. IBERLE: I think that's leftover. I have it off on my end.

DR. REICHERT: Okay. Thanks. Judd, remind me, and I think some -- We can talk a little bit more about that later, but some standing -- Some working groups are standing working groups, and they're kind of functioning a long time, like the ecosystem modeling working group, and others have a very short, specific task, such as the longline review working group, and I don't think so, but do we need specifics, or do we need to specify that standing working group timeline and documentation requirements may be different, but I think they're kind of included in this already, and I would just like some thoughts from you, or others, about that, whether we need a different approach for those standing working groups. I don't think so, but I just wanted to throw that out to the group. Judd, your thoughts?

DR. CURTIS: I will entertain other suggestions from SSC members, but my thought was in line with yours, Marcel, and I don't think that we need to be overly prescriptive, or explicit, on what documentation is attached to what type of working group. That might be a little bit of overkill.

DR. REICHERT: Okay, and I agree, and I just wanted to mention that, because that was brought up, I believe, in April, if I remember correctly. Does anyone disagree? Please raise your hand. Otherwise, those were some of the -- I think these are very useful additions, or recommendations, and I assume that this will then go to the council to consider, because they need to approve this, I assume.

DR. CURTIS: I think our approach will be that I will take these considerations here, from our report, and draft some language within the workgroup approach document, and then we can circulate that around with the preliminary report, and people can have a chance to review, and then eventually we can present it to the council.

DR. REICHERT: Okay. Thank you. Other than Jennifer's hand, I don't see any raised hands.

MS. IBERLE: I don't have any hands on this side, Marcel.

DR. REICHERT: Sounds good. Thank you. All right, Judd, and so that was the workgroup approach document. Thanks for everyone's feedback. I appreciate that. Do you want to take the next part of this, Judd?

DR. CURTIS: Yes, and so the next part of this segment is just a review of the SEDAR project panel representatives, as well as the current workgroup structure, and so I'll start with the SEDAR project panels, and just make note of where your names are, and, if you don't feel like they should be there, or if I've missed one, now is a great time to pipe up, so we can update the record for the representatives on each of these panels.

Where available, I have included the schedule underneath the various SEDAR projects, at least the most up-to-date schedule from the SEDAR website, for reference. The gray ones have already been completed, and so we don't need to go there. Currently, we're right around the mutton snapper review, and so we have two members there tasked with that, and I don't want to go through each and every one, but at least have a glance at that, and I would ask everyone to raise their hands if you feel like your name is there in error or if you do not see your name where you think it needs to belong.

Then, just lastly, you will see, at the bottom, for SEDAR 90, the next red snapper benchmark assessment, we've got our data and assessment participants finalized, and we're still looking for review, but that does not necessarily need to happen quite yet, and so that will be at a later meeting, when we need to populate the review team.

DR. REICHERT: Okay. Thanks, Judd. A couple of things. Thank you for putting this together, and I'm asking, or recommending, that we add this document to the briefing book of every SSC meeting, because that's, for me, always a good reminder of where we are, and that may also help with the updates from the working group chairs. I really like the link to the schedule, if it's available, and so thank you for that.

I've got a couple of questions. One, we don't have to spend a lot of time for that, but can someone remind me why there is a -- Why SSC members are assigned for review of an operational assessment for the yellowtail snapper? Isn't that generally reviewed by the SSC, or, in this case, the SSCs, the entire SSCs? It's okay if we need to come back to that in October, but I was just wondering why an operational assessment needs review panel members.

DR. CURTIS: So the entire assessment will go to both the Gulf and South Atlantic SSCs for full review, and I think this was just part of the review team, initially, when it was developed, but -- I think Julie had to go back to red drum, and she could provide more clarity on that, but we had slots for them, and we filled them, and so there must have been a reason, and I'm not quite sure right now.

DR. REICHERT: Okay. Maybe we can ask Julie that in October. The other thing is, and I'm not sure if we need to do that now, because of the timing, but we may want to start adding that black grouper review that we discussed earlier, and I assume that, ultimately, we need SSC panel members for that. Correct?

DR. CURTIS: Yes, we'll need to populate that. It might be a little premature for that, Marcel, but I can add it to the list, so it's on our radar to populate it, once we have a better idea of what the timeline is going to be and when the management advice will be provided. That might give us a better idea of when that SEDAR panel, if it does indeed constitute a SEDAR panel, occurs, but Julie can speak hopefully to the yellowtail.

DR. REICHERT: Julie, go ahead.

DR. NEER: Hi. I don't know why there is people listed as review for yellowtail, and maybe, a while back, we thought it was going to be a benchmark or something, and it will just come as -- The plan is it's going to be a joint review with the Gulf of Mexico SSC, or at least a subset of perhaps both groups, since it is another one of those Florida stocks, along with mutton, and there will be some sort of joint review, and Judd and Ryan Rindone, from the Gulf Council staff, are working out the details for that, but we're looking for early 2025 for the review, and they're both going to be completed this fall, but not in time for the October SSC meeting.

Then, with regard to black grouper, just put it on your radar. We have not gotten that far, to determine if it's going to be CIE, a CIE desk review, if it's going to be a portion of both SSCs, and we're not that far yet, and so we'll -- Stand by.

DR. REICHERT: Thank you, and so we can -- What I'm hearing from you is that Wally and myself, as the review for yellowtail, we can comfortably scrap that?

DR. NEER: Yes, because it's just going to come to the joint SSC.

DR. REICHERT: Exactly. I agree that it's a little premature, but, as Judd said, it would be good to just put black grouper there, as a reminder that that's coming up, and it's always good to have that.

DR. NEER: Also, as an FYI, the whole hogfish schedule for SEDAR 94, hogfish, is not yet available, and we're still working on it, but I do have the data workshop dates for Steve Turner and Marcel, who had volunteered, and that is going to be July 28 through August 1, 2025, in St. Pete, and so the last week of July 2025, basically, is when hogfish is going to have its first in-person workshop, and we're working on the schedule -- I will be working on the schedule soon, with Dustin and his team, to get that finalized.

DR. REICHERT: Thank you. Those were some of my notes, and comments, and does anyone else have any questions or comments or additions to this, to the SEDAR schedule? Judd, I think you mentioned that the new SEDAR coordinator is known, and so perhaps, when we are in Charleston, you guys can introduce her, unless she has a meeting elsewhere.

DR. CURTIS: Yes, and that sounds like a great idea.

DR. NEER: Emily and I will both be at the October meeting, and so, yes, you will get to meet her, and she's actually listening to the call right now, and so she's tipping her toe in the SSC today.

DR. REICHERT: All right. Thank you. We're looking forward to meeting you in-person in October, and so thanks. Okay. That was the SEDAR schedule, and let's move on to the working groups. Judd, go ahead.

DR. CURTIS: All right, and so here is the list of kind of the extant working groups, I guess minus the SADL survey, which has been completed, and they submitted their final report already, but the Executive Committee, and, of course, that's a standing workgroup, essentially. Moving down, the

Data Limited/Unassessed Stocks, this was the workgroup that had a component that was a joint membership with the Gulf, that was passed to review any goliath grouper data that was coming to the SSCs, and we have not seen any of that data yet, and so there's been no need to convene a joint workgroup, and there hasn't really been a need to convene the South Atlantic workgroup yet for the data-limited and unassessed stocks, as the Science Center has continued to progress and work on that, but, once they have come up with landings streams for some of our data-limited stocks, we will get this workgroup going, and I believe that is one that we already have a statement of work written, and it has been reviewed.

DR. REICHERT: Okay. Thanks. Relative to -- That was the -- It doesn't matter, and it's both the old and the new ABC Control Rule Category 4, correct?

DR. CURTIS: That's corrected, and, yes, this was set up when we were still under the new ABC control rule, but this Category 4 -- I guess now it might be called Tier 4, and it's still to represent the data-limited and unassessed stocks, and so the name hasn't changed.

DR. REICHERT: Okay, and please raise your hand for any of these working groups, if you feel that, you know, we need to change the composition or the person who is currently the chair. Go ahead, Judd.

DR. CURTIS: The next one, that has met a few times, is the Ecopath/Ecosim, and now with Ecospace, model, and we've got three members from the SSC represented there, and I have only listed the SSC members that are part of the workgroup, and there's also staff, some Science Center, and also external people, affiliated with these workgroups, but, for us, just the SSC members are listed here. They will continue to meet throughout the rest of 2024, and into early 2025, as Chip gave the update earlier this morning, and the two next workgroups are ones that --

DR. REICHERT: Judd, we don't have a current chair for that, and Alexei was the only member of the kind of old group, before some of the other members retired from the SSC, and so Alexei is not on the call, and I may contact him and see if he's willing to take on the chairmanship. If that's not going to be the case, maybe in October, we can discuss a chair for this group, for this working group. The other question I had is didn't we discuss potentially combining the Ecosystem and Habitat Working Group with this Ecopath Working Group, or are you going to address that later?

DR. CURTIS: Yes, and I'm getting to that part, Marcel.

DR. REICHERT: Okay. Sorry. Go ahead.

DR. CURTIS: All right, and so we do not have a chair for that, as you pointed out, and so finding one then, if we're going to have chairs with an additional responsibility to provide an update at the SSC meetings, and we'll need to elect a chair there, or appoint a chair.

The two next workgroups, Regime Shifts and this MSY Proxies and Reference Points, they have never convened. They were formed in 2023, and we had two members in each of those workgroups. Again, they have never met, and so, as part of the overview document, I had suggested some discussion on whether to disband those groups or not, but we had a meeting of the Executive Committee, a week ago, and this was discussed, and it was -- The recommendation was to leave them intact, and for the reason that there is going to be several workshops, informative

workshops, such as the SCS8, the East Coast Climate Scenario Planning, and I forget what all those acronyms stand for, as well as this CEFI initiative.

Meetings are coming up that might have some guidance on what the SSCs could potentially look at, and so leaving these workgroups intact would be beneficial for now, as opposed to having disband them and then reform a little bit later, but I will open it for any discussion on what the committee would like to do with regard to those two workgroups.

DR. REICHERT: Any comments or suggestions? Perhaps we could discuss this again in October, because then we will have the report of the national SSC meeting that may be relevant for this. Okay. Seeing no hands, then we'll leave them as-is, and we'll come back to this later. Thanks, Judd. Go ahead.

DR. CURTIS: Okay. We'll eventually probably need to populate those two workgroups with a few more members, or potentially combine, based on the guidance from the national SSC meeting, or other areas, and where we go from there, but, for now, we can leave them intact and move along.

The SCS8 attendees, we already covered, and then, lastly, I had put this Ecosystem, Climate, and Habitat as a potential new workgroup, and this is theoretical still at this point, and, you know, we don't have any scope of work or anything, but this was kind of a placeholder for, again, all the other workshops that are going to be coming up this fall and any potential ecosystem, climate, and habitat information, new information, that the SSC would be tasked with tackling, and where a workgroup format might be more efficient than presenting to the entire SSC.

One thought that I had is to integrate the Ecopath/Ecosim/Ecospace group into this new Ecosystem, Climate, and Habitat group, but that was one -- That's just an idea, and feel free to shoot that down, if we want to leave the Ecopath/Ecosim/Ecospace intact as-is and not worry about adding that and giving them just a more specific directive.

DR. REICHERT: Jennifer, go ahead.

DR. SWEENEY-TOOKES: Thank you. I just wanted to mention that this is a good group to definitely have a social scientist on. I think a lot of the issues that come up are going to be that negotiation of natural and social sciences, and so, if we do choose to shift over, like you were just saying, then maybe we save that fourth spot for a social scientist, please, someone from the SEP.

DR. CURTIS: I think that's an excellent point, Jennifer, and I'm making a note there that we'll add that as a criteria for one of the seats.

DR. SWEENEY-TOOKES: Thank you.

DR. REICHERT: Judd, were you thinking about this Ecosystem, Climate, and Habitat subpanel having a similar structure as the current SEP, or just more like a current SSC working group, or you haven't really thought about that?

DR. CURTIS: We haven't -- We've kind of thrown some ideas around, and we discussed this a little bit during the Executive Committee meeting, if this -- Depending on the lift associated with some of these workshops, and the expectations coming out of the ecosystem and climate -- The

new information, and if a true subpanel, similar to how the SEP operates, would be the approach here, or if it would still -- Or if it would be at the same level as one of these SSC workgroups, and so that is an option that's on the table.

That would -- You know, we would have to go up to the council, and they would have to make the recommendation that they would like to see a subpanel formed, and Ecosystem/Climate/Habitat Subpanel. There is precedent for that in other regions. Some of the other SSCs have a dedicated -- Not that exact name, but along those lines, a subpanel dedicated towards ecosystem and climate concerns, and so that is one approach that we could take, and, if anyone has any feedback, or recommendations, for or against that, now is a great time to chime-in.

DR. REICHERT: Any thoughts, anyone? Judd, correct me I'm wrong, but we don't necessarily have to make that decision right now, but that's --

DR. CURTIS: Correct, and this is just to inform the SSC that we're going in this direction at some point, and so start thinking about that, and we're not soliciting membership for this group yet, and hopefully, again, with some of the recommendations, recommended changes, to the approach, we'll have a clear scope of work that gets funneled up to the council, and gets approved, and then a more explicit statement of work, before we form it with SSC members.

DR. REICHERT: Thanks, Judd. Relative to merging the Ecopath/Ecosim, I'm hesitant to do that, because I've involved in that working group, before my hiatus and after, and, generally, those are very -- There's a lot of very technical discussions there, relative to the model itself, and I feel that the Ecosystem, Climate, and Habitat may be tackling some larger issues, and so, for now, I personally would recommend just leaving them as-is, and then see, maybe at a later stage, if merging would be appropriate. That's just my thought, and I would like to hear from others. No hands? So my recommendation, Judd, is to leave it as-is, and then we can --

MS. IBERLE: We have Jim's hand up.

DR. REICHERT: Jim, go ahead.

MR. GARTLAND: Thanks, Marcel. I agree with you on leaving the Ecopath one separate, but would it make sense to put the regime shifts one, to kind of meld that into the ecosystem one, given that it hasn't met, and given that regime shifts are kind of ecosystem -- I could see where that could make sense.

DR. CURTIS: Thanks, Jim. That was a thought that I had as well too, once we get some more guidance from these other workshops, and potentially both this MSY Proxies group, which we should get some information from the national SSC meeting, as well as kind of the regime shifts might be suitable to blend into a greater Ecosystem, Climate, Habitat.

DR. REICHERT: Yes, I agree. Thanks for that, Jim. Let's keep that in the back of our minds when we further discuss this in one of our next meetings, after we know a little bit more about what comes out of the various workshops. Any other thoughts or volunteers? All right. No hands? Seeing no hands, Judd, thank you for this overview, and I appreciate your work on this. In October, we'll come back to some of these working groups, and discuss this a little further, and so thank you for that. Anything else, Judd, relative to this agenda?

DR. CURTIS: No, and that's all I had to cover, and I included some of the discussion language here for review.

DR. REICHERT: It may be good to add that, for now, we leave those two other working groups in place. I lost my working group overview, but -- Yes, the Regime Shift and Proxies in place. Okay. Anything else? Right now, I don't think we would recommend any restructuring of the working groups.

DR. CURTIS: Okay. Thank you for the guidance there, and the recommendations, and I'll get to work on the updated and revised SSC workgroup approach document, and we'll circulate that along with the report.

DR. REICHERT: Thanks, Judd. I really appreciate that. All right. Other Business, we already talked about the SCS8, and I believe there is a SciFish update from Julia. Judd.

DR. CURTIS: Yes, from Julia Byrd, who is our Citizen Science Coordinator at the council.

OTHER BUSINESS - SCIFISH UPDATE

MS. BYRD: Good afternoon, everyone. I just wanted to share a little information on a new data collection tool that we've been working really hard to develop, along with the Atlantic Coastal Cooperative Statistics Program, or ACCSP, and the North Carolina Division of Marine Fisheries, over the past few years, called SciFish.

It is a citizen science mobile application that also has this kind of menu-driven project builder, and so it kind of eliminates the need to develop standalone apps for every new kind of data need, or project idea, that you have, and so it kind of acts as an umbrella app that can house multiple projects, and, when we describe it, we kind of use a game console analogy, and so SciFish is like the Atari, or the Nintendo, and the projects underneath it are kind of like the games, the Donkey Kongs, the Mario Carts, that sort of thing.

In addition to kind of housing multiple projects, it's also helping to work to kind of create consistency in the data fields and structure, trying to standardize data collection amongst citizen science projects kind of along the Atlantic coast, and so this project wrapped up, and SciFish is now available for kind of partners to use all along the Atlantic coast. It's being administered through ACCSP, and it's really focused on supporting citizen science projects that help fill specific data gaps and research needs, to support kind of management and stock assessment, and so I thought there are a lot of folks doing research on this call, and, if you guys are interested in kind of citizen science projects, SciFish could be a great tool for folks to be aware of.

There is kind of a two-step application process to get access to the SciFish project builder and mobile app. Once you get through the application process, you're able to use it for free, and so it's no cost to build your own project within the SciFish platform.

The project builder is pretty cool. If you know what data fields you want to collect, you can build something in the project builder and push it to the app on your phone, within ten to fifteen minutes,

and so I think it's going to be a great tool, and I just wanted to make you guys aware that it was available, in case it was of interest to you all, and I can put a link to the SciFish webpage, which is on ACCSP's website, if you all want to learn more about it, and that's all I have, Marcel and Judd.

DR. REICHERT: Thanks, Julia. I listened to your presentation at the council, and that's a really cool application, and it seems like it's relatively easy to set up and use, and so thank you for that overview. I completely forgot about the public comment, but is there any Other Business for this meeting, Judd, or any SSC members?

OTHER BUSINESS - SSC PRESENTATION TO COUNCIL IN SEPTEMBER

DR. CURTIS: The only last order of Other Business is finding an SSC member to present the SSC report coming out of this meeting to the council in September. All of our Executive Committee is away, either on personal travel or have work obligations, and we've reached out to former ExCom members, to see if they would be willing to do it, and they're in the same boat, and so, right now, we don't have anybody to present the SSC report to the council, and so this is an opportunity to solicit a volunteer to do so. There is an option to present remotely. The council would also pay for your travel to Charleston, if you should like to come visit the wonderful city of Charleston, and, Marcel, I will throw it back to you to open it up for potential volunteers or nominations.

DR. REICHERT: Yes, and so, if anyone is available and willing to do this, I really appreciate that. I'm abroad, myself, and a lot of members are at the AFS meeting in Hawaii, and others have other obligations, and so, if anyone is willing to present this, and it's probably going to be a very brief presentation, mostly related to the black sea bass. I can certainly help in getting slides together, et cetera, and so we'll provide as much help as we can give you, but I'm hoping that someone is willing to volunteer. I hate to volunteer people, but let me know if you're willing to do that. Otherwise, we've tried to engage volunteers, over the past couple of weeks, but I may do that again, if we don't get any volunteers at this point, and so let me know if you're willing to do that, and you'll have until the end of the meeting to stick up your hand.

DR. CURTIS: Marcel, just to elaborate, the lift should be very light. You know, we didn't have that many recommendations coming from the SSC to the council. The meeting itself is scheduled for the week of September 16 through 20, and the SSC report -- The person would only need to be there probably towards the beginning of the week, the 17th and the 18th, and so maybe just a one to two-day commitment.

DR. REICHERT: Yes, or it can be done --

DR. CURTIS: That's if they travel in-person, or it could be done remotely.

DR. REICHERT: Okay. Right now, seeing no hands, we may come back to this at the end of the meeting, and so any other business, Judd or any of the other committee members?

DR. CURTIS: That's all the other business that I had. If any other SSC members have other business to bring up, please do so now.

CONSENSUS STATEMENTS AND RECOMMENDATIONS

DR. REICHERT: Seeing no hands, are there any public comments? Would anyone like to make a public comment? Please raise your hand. I assume that, during the meeting, no other written comments have appeared. No hands? Thank you. Then what we have left is the consensus statement and recommendations. We went through that, and let's go through that, real quick, because it's not a long list, and then maybe, Judd, you can remind us of the timeline for the report. If anyone had any additional notes for the report, please let me know. Judd will -- Maybe you can slow scroll through that.

The first one was the black sea bass, and we have made a couple of comments on the general uncertainties and concerns that we discussed. All the ones that I had in my notes are on here. By the way, Matt sent me an email, that I am happy to share, and we asked, or I asked, about the changes in size-at-age, and he came to the conclusion that there wasn't much change in the mean length-at-age, and he also looked at the sex ratio from MARMAP, and compared it to the assessment-based on the fixed proportion at-age, and he saw that there was a general decline in the wrong data, that aren't seen in the stock assessment, and the scale seems to be a little different too, and he looked at the mean size for the different sex codes over time in the reef fish dataset, and so that -- He provided some additional information.

I will take another look, and some of that may be relevant for the SSC, and I will share that with the other SSC members. I am trying to figure out if he -- Yes, he just sent it to me, and so I will share that with others, just as an FYI, and Matt sent that earlier. After his presentation, he sent that to me, and so -- I think all my other notes are in there. Are there any other SSC members that have notes or want to see some change in the language here?

DR. CURTIS: Marcel, just a clarifying point here. This first bullet here highlighted is what are the impacts on black sea bass between federal and state -- What are the impacts? What impacts are we describing here? That may have been me not capturing that point accurately.

DR. REICHERT: Yes, and I think that --

DR. CURTIS: Was that related to the discard mortality?

DR. REICHERT: Yes, because if -- I think that was especially related to the closed seasons. That impacts total discards. Then, relative to the materials that have been developed, and I think Chip mentioned that, and was that something that we may -- That we may see in October?

DR. CURTIS: Yes, and we can include that as part of the briefing book materials. That was presented to the council by John Carmichael at the March meeting, I believe, and it provides some good background information on some of the distribution between shore-based and offshore effort, and so we can include that in the October briefing book materials, certainly.

DR. REICHERT: Okay. Maybe after "effort", you can say "and will be included in the SSC October briefing book", or something like that. Thanks for that, Judd. I think we should be as clear as possible, in terms of our recommendations. No hands? Then maybe we can scroll down

a little bit, Judd. I don't have any additional text there, or changes. Anyone else? If not, maybe you can scroll down, Judd. I don't have any additional text here, at the moment.

If there are no hands, can you scroll down, Judd? Judd, correct me if I'm wrong, but this is the part that is most relevant in the update to the council, correct? There may be a slide on the management evaluation, but the meat is the black sea bass issues that we discussed?

DR. CURTIS: That's correct, and we'll probably have just a slide or two for the black grouper management procedures review.

DR. REICHERT: Okay. Thanks. Can you scroll down, please? Okay. The black grouper management strategy evaluation. Can you scroll down? I'm looking at the sub-bullet under any concerns, and I'm not sure if that's the correct place for that, but we can -- That's more like a general uncertainty consideration, but we can wordsmith that a little bit, or move that elsewhere, or maybe it's in the right place. I don't know, but it seems like it's -- Thank you. It seems like it's just kind of floating there, and what to do with that, and thank you. That's better. Any other comments or notes that we should add?

Seeing none, let's move to the next page. You said you were going to adjust the language in the document and share that with us, Judd.

DR. CURTIS: Yes, and I will make those edits and recommendations from the committee and include those as a -- Include the revised document along with the report.

DR. REICHERT: Okay. Maybe --

DR. CURTIS: I will capture that there.

DR. REICHERT: Go ahead. Maybe add, to the workgroups and SEDAR membership, that we removed the review panel members from the yellowtail snapper, because the review is done by the full SSC. Then add the black grouper as a placeholder for future appointments. I'm not sure -- We have that as an addition to the document, but would it be a good idea to add here that we will -- That the working group chairs will provide an update on working group activities at the in-person SSC meetings, or do you want to keep that in the document? I am fine with either way, but do you know what I mean?

DR. CURTIS: It's the pleasure of the chair and the committee, and we've got it outlined here for the workgroup chair to provide an update on workgroup projects during in-person meetings.

DR. REICHERT: Sorry. It's already there. Okay. That's all I had. Anyone else have hands? I think that was it, wasn't it? Did we have any additional notes? That was it, Judd?

DR. CURTIS: One other thing I had on my side notes that I was taking is to include an SEP member slot for one of the ecosystem workgroups, once that's formed.

DR. REICHERT: Sorry, but can you say that again? I missed that.

DR. CURTIS: To -- Let me just copy this over here.

DR. REICHERT: Yes.

DR. CURTIS: To include an SEP member slot for one of the ecosystem workgroups.

DR. REICHERT: Yes. Thanks. Anyone else have any additions? That's it? All right. Then, relative to -- Sorry. Share webinar link with -- Okay. Relative to the timeline, Judd, I may need some guidance. I think I can provide, or we can provide, a report, the draft report, to the SSC by -- Let me pull up my calendar here. By --

DR. CURTIS: Marcel, two weeks from tomorrow would be August 30, which is the exact date that the briefing book is posted to the council website for the September council meeting, and so that should be our target.

DR. REICHERT: Okay. I was looking at maybe -- We can get the report out no later than August 21, and that's when I'm leaving, and then we'll see each other at the national SSC meeting. I will be coming back on Wednesday, and so that gives us basically one day to include the comments, and that's a really tight deadline, and so if -- Is a week sufficient for the SSC members to get comments back to us? I would like to get that actually back a little earlier than that. Judd, can we get the report out by maybe Monday or Tuesday?

DR. CURTIS: Yes, and I can get this report out by tomorrow morning, and so I'll just go through it with a fine-tooth comb, and send it on to you, and then you can circulate it with any additions that you need.

DR. REICHERT: So that means that I will probably try to get that to the SSC this weekend, and then, if the SSC would get comments back by August 26, and that will give us a couple of days to get that ready for the briefing book on the 30th. Is that okay with the SSC? Let me know if anyone has any problems with that. Seeing no hands, then that's the timeline. Especially since it's a short turnaround, even if you don't have any comments, perhaps you can shoot me, and Judd, a quick email saying, hey, I don't have any comments, and so that helps us, if we are -- If we get all the comments a little earlier, then I can start making those edits earlier, and so that would really help us, and so that would be very helpful. Okay. Then the next meetings, Judd.

NEXT MEETINGS

DR. CURTIS: The next meetings you've got listed here. The SEP meets on October 7, and this was to address some of the SEFHIER program improvement amendment concerns, and we'll have an SEP -- Probably Jennifer, as the SEP chair, will then relay that report from the SEP to the SSC at our meeting, in-person meeting, October 22 to 24, and we'll also have a chance to discuss that there.

One thing to note is that we're going to have a pretty lift for this October meeting, and so I'm asking all SSC members to plan to travel on Monday, for an 8:30 a.m. start time on Tuesday. That way, we can still get out by Thursday at noon, and travel information will be forthcoming here shortly, and we've got the hotel already reserved, and so you can start making your plans, and I will send the travel authorization forms out probably tomorrow as well.

In January/February 2025, we'll have a webinar, and I'm not sure of the exact dates yet, but this is going to cover two of the Florida-based assessments, yellowtail snapper and mutton snapper, and so this is going to be a joint review with the Gulf of Mexico SSC, and so plan for a full day, probably a morning reviewing yellowtail and an afternoon reviewing mutton snapper, and, as soon as I get a chance to determine dates with Ryan at the Gulf Council, I will get those sent to you guys, as soon as possible, so we can book the -- So you can put that on your calendars.

Then, for next April, we have got our times booked for the SEP and SSC meetings, April 14 to 15 for the SEP, and April 15 through 17 for the SSC, and then, below, you have the upcoming council meetings as well, in Charleston, Wrightsville Beach, and somewhere in Georgia in March.

DR. REICHERT: Thanks, Judd. All right. Well, thank you, everyone. Unless there is any last-minute comments, or questions, and let me know, and I will send an email out to everyone with the report timeline, and a reminder that we are still looking for volunteers to give the report to the council, and that is all that I have, and so I want to thank everyone for your contributors, the speakers, the council and Southeast Science Center reps, and Shep and others, joining us for the webinar today. Judd, thank you for all your notetaking and your other help, and, with that, let's adjourn. Thanks, everyone.

(Whereupon, the meeting adjourned on August 15, 2024.)

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Certified By: _____ Date: _____

Transcribed By
Amanda Thomas
September 9, 2024

Attendee Report: Scientific & Statistical Committee Meeting (August 15, 2024)

Report Generated:

08/20/2024 08:17 AM EDT

Webinar ID	Actual Start Date/Time
262-671-531	08/15/2024 07:56 AM EDT

Staff Details

Attended	Interest Rating
Yes	Not applicable for staff

Attendee Details

Last Name	First Name
Collier	Chip
Curtis	Judd
Addis	Dustin
Allen	Shanae
Barbieri	Luiz
Barrows	Katline
Belcher	Carolyn
Best	Alexcia
Bianchi	Alan
Bradshaw	Christopher
Brouwer	Myra
Bubley	Walter
Buckel	Jeff
Byrd	Julia
Cao	Jie
Carmichael	01 john
Cermak	Bridget
Christiansen	Heather
Clarke	Lora
Coffill-Rivera	Manuel
Flowers	Jared
Gartland	Jim
Gentry	Lauren
Glazier	Edward
Grimes	Shepherd
Guyas	Martha
Harford	Bill
Helies	Frank

Henriquez	Vania
Hervas	Susana
Iberle	Allie
Lee	Max
Lorenzen	Kai
Marhefka	00Kerry
Markwith	Anne
McGirl	Maria
Mehta	Nikhil
Moore	Peyton
Muller	Robert
Murphey	00Trish
Neer	Julie_RD
Nesslage	Genny
Newman	Thomas
O'Hop	Joe
OFarrell	Halie
Ott	Emily
Package-Ward	Christina
Peterson	Cassidy
Ramsay	Chloe
Reichert	Marcel
Rogers	Walt
Scharf	Fred
Schmidtke	Michael
Schueller	Amy
Scott	Rebecca
Sedberry	George
Seward	McLean
Shertzer	Kyle
Sweeney Tookes	Jennifer
Turner	Steve
Vecchio	Julie
Vincent	Matthew
Whitten	Meredith
Wiegand	Christina
Williams	Erik
Withers	Meg
hyscock	holden
walsh	jason
Compton	Jonah
DeVictor	Rick
Howington	Kathleen
Kean	Samantha

Serchuk Fred