

SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

SEDAR COMMITTEE

**Marriott Hutchinson Island
Stuart, Florida**

June 13, 2019

SUMMARY MINUTES

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Other observers and participants attached.

The SEDAR Committee of the South Atlantic Fishery Management Council convened at the Marriott Hutchinson Island, Stuart, Florida, on Thursday, June 13, 2019, and was called to order by Chairman Jessica McCawley.

MS. MCCAWLEY: We are going to continue through the agenda here in the SEDAR Committee, and so the next thing up is the SEDAR Activities Update, and I'm going to turn it back over to John.

MR. CARMICHAEL: All right, and so the next item is the activities update, and that would be Attachment 2. As usual, this gives you a pretty detailed rundown of all the things that are going on with the different SEDAR projects. What I have done here is really the birds-eye view of what's been going on and some discussion that Jessica and I had at the Steering Committee meeting about trying to give you guys a sense of, across all the projects that are underway, what is their different status and sort of what do you have coming and what do you have decisions to make, versus what's just you have made all your decisions and we're waiting for this thing to play out, and so that's what I have tried to capture here.

The green projects are all things that are underway, and you've made your approvals and appointments and everything else, and the next step for the South Atlantic Council is going to be the SSC review, and then you will get it and take actions. The timing on the sides of the boxes shows you generally when we expect those projects to be completed and available to the SSC for review, and so those ones that we have are the scamp research track, the cobia benchmark, which SEDAR is still involved in, and we have some SSC folks taking part, but recall that we transferred management of that over to the ASMFC, and so it will be going to their technical committee for review.

We have the yellowtail snapper benchmark that FWC is working on, and we have the king mackerel update, which is going to get started later this year, and we hope that, early next year, that it will be available for SSC review, and so all of those are underway. The few red projects here, and everything I say is going to be in much more detail in the report and the text, if you want to look there.

The red projects, I highlighted those in this because these are the ones that are essentially awaiting the MRIP workshop, which the SSC has planned and George will talk to you more about when he gives the SSC report, but that is essentially greater amberjack and red porgy, which had gotten started and then were stopped, and then snowy grouper and tilefish, which had not quite gotten started when this issue with the MRIP data came up, but we will need to have that resolved before we move ahead on those assessments, and keep in mind that both snowy and tilefish have relatively low recreational landings, and so their impacts are probably not going to be nearly as great as say they were on greater amberjack, in particular, and, to a lesser extent, red porgy. Those are ones that decisions have all been made on the council staff side, and we're waiting on the SSC review, but they're in a bit of a holding pattern.

The yellow ones are ones that were recently scheduled by the SEDAR Steering Committee, and these are the ones that will be awaiting council action on terms of reference, schedules, and appointments, and we anticipate taking terms of reference to the SSC for gag and Spanish at their next meeting, and then, sometime later, once Florida is wrapped up with yellowtail snapper, they will be looking ahead to what we need to do on the mutton snapper.

One of the things the Steering Committee discussed was the scheduling of red snapper, and, originally, our plan was to complete the scamp research track before we started additional research tracks, so that we could understand how the research track process was going to operate, but, with the various delays that have happened, clearly doing that plan would lead to even greater delay in some of these additional research tracks, in particular red snapper for us, as well as red snapper in the Gulf, and so what the plan is now, approved by the Steering Committee, is to start on the frontend of red snapper, which would be dealing with the stock ID and the planning phases and such, while scamp is going, and so it will follow along about a year behind, and, as things are learned our scamp, our intent is then to transfer them over into the red snapper process, so that we're informed on how we handle red snapper on how scamp works out, but we don't have to wait until the very, very end before we get that started, and so that will help somewhat reduce the delay in getting findings on red snapper.

Then the kind of grayish color -- As it turned out, these are ones that are requested, and so these are ones that have been on our long-term priority list, and the Steering Committee will be considering those at future points, and so, in the case of here with the black sea bass and red grouper, we will prepare a scope of work, and that's underway now, and I will talk about that in a bit in a later slide, about how we're going to process that and get it to the Center, but the intent is to have that to the Center in August, so that they can consider the workload for the 2021 stocks, and the Steering Committee will finalize those at their fall meeting this year, and then that's going to get us on track so that we're finalizing things two years out, which has been our long-term plan for a while, and we're really close to getting there, and so that's our plan. This gives you kind of an overall view, and, Jessica, do you think this helps bring the picture together a little better?

MS. MCCAWLEY: I do. I think this is really helpful, and I appreciate you putting this together. The color-coding and understanding not just what year these items are getting started, but understanding where they are in the various process is super helpful to me. I appreciate you creating this.

MR. BELL: It's real helpful, and I was using -- I was looking at the one that was in the binder, and that's the whole big picture with everybody, and I had a question. Up there, of course, that's the South Atlantic team, and so the teams are -- Is that like there are four stock assessment scientists or something, and so you have -- I mean, how do you decide how many teams you have, and then across the whole suite, and I guess what this attachment shows, or the table shows, is Clay's whole world, with all the other things going on at the same time, and so you've got a whole bunch of stuff going on concurrently with a whole bunch of teams, but are your teams basically designated by the number of stock assessment scientists you have?

MR. CARMICHAEL: Yes, roughly, Mel, and you're right that this is an excerpt of that table that's in the back of the project report that shows you the whole SEDAR universe, everything that we're working on, and it is -- As Jessica said, and I agree with her, it's like there are so many different projects underway, and they are all in different stages of their life, that it is hard to keep up with, and I think this will help all of us, and so you see there is a South Atlantic team, a Gulf team, and there's the HMS and sharks team, and then there's the folks that work on mackerel, which are typically in the Science Center with another group of people, and so that's how the master table works across.

Then, within each team, as you see here, there is what we in the past, in SEDAR language, used to call slots, which roughly correspond to assessment scientists and the number of scientists that are working on South Atlantic projects. Within the Beaufort group is roughly the South Atlantic team, and so the Miami team is the folks working on Gulf and Caribbean assessments, and so they do roughly correspond to the number of assessment scientists that can be put to task on like a South Atlantic assessment, and not always, and not perfectly, and like the personnel don't necessarily always line up across time the same as the projects do, because maybe people will shift or whatever, but we do try to make an effort to keep them lined up, because that can influence when you start a particular assessment. As close as we can get it, they do match up with people, real, living, breathing people that have got to do work, which Katie there is one.

MS. SMIT-BRUNELLO: John, is there a location that the public can easily access that gives a description of the different kinds of assessments, like what's a benchmark, standard, operational, research? Do you know of a location?

MR. CARMICHAEL: All this information is on the SEDAR website, and the different councils and cooperators also have some limited information about it, but it's summarized on the websites, and then the SEDAR SOPPs are available on the SEDAR website, and so all of that information is available. There is some documentation about the research track process, and that's not in the SOPPs yet, because the plan has been to get through a research track process and then see how we need to update the SOPPs, but that is also part of the discussion that will happen down the road at the Steering Committee.

DR. PORCH: Just a reminder, and I think I've mentioned this before, but, in addition to those slots, which John is right that they more or less correspond to assessment scientists, but we have a bigger bottleneck, and that's been the data processing, and so that's why sometimes you don't see -- Especially in 2019, you see all this white space, slots not fully utilized, because it wasn't the assessment scientists where were the limit. It was our ability to process the data.

We've made some inroads in that, and you will see that 2021, across the board, is a little thicker, and probably for a couple of years after that you will see basically more assessments being done as we remove the data bottleneck, and then, eventually, the assessment scientists will be the bottleneck again.

The other point I wanted to make is you will see some of these slots go on for two years or more, some of the research track slots, but that's sort of the worst-case scenario, in case there's a lot of things that we have to look at and a lot of controversy that needs to be resolved, unless, for instance, with red snapper, in both the South Atlantic and the Gulf, it's showing up as -- Well, on the one that John is showing now, it's about a two-and-a-half years or something process from research track through the operational assessment, but I think it's unlikely that either one of them will go that long, simply because there is -- I don't see any unanticipated information coming to the table.

The Gulf has the Great Red Snapper Count going on, but that shouldn't be too complicated to incorporate in the stock assessment process, and the South Atlantic has some selectivity studies and a few other pieces of information, but I don't see any of them requiring two years to resolve, and so the bottom line is I doubt it will take that long, and we'll probably have management advice sooner than that, and it will be more a matter of when we can schedule review workshops and all that.

MR. CARMICHAEL: If you look across this, really, it's resource limitation in two dimensions, or two directions. One, you have the stock assessment people, which go down the columns, but then, as Clay mentioned, the data, and so, if you look across the rows, essentially, that is showing you the data workload that falls to the Science Center, and so it's pretty obvious, when you look across the SEDAR universe, that there is a pretty heavy data burden that happens in every year, even though some one individual council may feel like, oh, we didn't get that many assessments that year, but the data burden is always there, across the whole universe, and that is becoming, or has been, one of our biggest impediments and bottlenecks.

MR. WAUGH: John, given what Clay just said, looking at Atlantic red snapper, when would the council anticipate getting advice that has already been reviewed by the SSC? If we were to get that advice from the research track and the operational assessment say late in 2022, and it goes to the SSC in April of 2023, and so is the council then -- If the council has to change management, we're looking at a regulatory amendment. If it's just adjusting the ACL, that can be faster, and so would we be able to affect the 2023 fishing year, or is it 2024? Do you have a feel for that?

MR. CARMICHAEL: That will all depend on how much time the planning team thinks it's going to take to get through the tasks of red snapper and what's necessary, and so, if it follows the general timing of scamp, which is what it shows now, then it would probably go to the SSC at their spring meeting in 2023.

If it turns out, as Clay says, the possibility that they decide that we don't need that much time for dealing with red snapper, and they're able to get started in early 2021, as shown, then, yes, they may be able to cut that back and perhaps get the information to them in late 2022, but what you've got to figure is, just like with scamp, you've got the general research track tool that is built, and the SSC will look at that, and then it will be updated with the most recent data when the operational assessment is done.

To get something where you had say late 2022, getting the operational assessment, you would probably want something going to the SSC in maybe late 2021, or certainly no later than April of 2022, which may be tough to get in, depending on how the timing is, but I think Clay is right that it's going to come down to what is the real scope of work of this project, and I don't think we will know that until -- I mean, the planning team will get started here probably in 2020 sometime, and we're starting to look at some folks now and starting to get that organized. They will lay out the scope of work, and we'll run that through all the SSCs and figure out what that means, but I think it will be sometime in that window, and 2023 seems possible. Certainly, by 2024, you should have recommendations through the SSC and to the council.

MR. BELL: Sort of to what I said before, I think Table 2, particularly this one that shows the whole big picture, that is extremely useful in showing someone, if a constituent were explaining this to a congressman or whomever, that is the SEDAR -- That is the stock assessment factory, and that's what makes us run. I mean, that is essential to us being able to do our job, and it's essential for us being able to maximize our wild-caught fisheries, and that's the core of what we do.

You can show somebody in a picture that this is what we have to deal with, and then, since our Science Center has all of this, I mean, it just shows you that we've got a lot going on, and we've certainly talked about funding and the need for funding and maintaining or increasing funding, but

that's a very good visual tool to use for the public, let's say, to communicate exactly what's going on and why funding is so critical, because, if you can't run that factory efficiently, then we can't make the decisions we need to make in a timely manner, and things drag on, and so, I mean, that's a great way to depict this, I think. Again, I like pictures, and so that works for me, but I think you could use that, or somebody could use it, to simply just show what we're up against.

MS. MCCAWLEY: I think it's great, and do you mind emailing this new table that you created around to us as well?

MR. CARMICHAEL: No, not at all, and, in fact, Kelly and Cierra, it's on the website stuff under SEDAR for this presentation, and we can share that around to everybody.

DR. PORCH: I wanted to add on to John's earlier point about the two dimensions, and it actually turns out that there might be three dimensions here, it came out during the SEDAR Steering Committee, because the SEDAR staff have to man all these things and juggle all the dates, and, the more assessments we start cranking out -- As you see, 2021 is starting to fill out, compared to previous years, and now you're going to start finding limitations with SEDAR being able to cover all these things.

MR. CARMICHAEL: If you guys are cool with this, we don't need any action, and, to Mel's point, we probably started doing this at the Steering Committee six or seven years ago, and so all the SEDAR Steering Committee meeting reports -- They generally have two versions of this. They have one that is where we started at the start of the meeting, and they have one, normally at the front of the report, that summarizes what the Steering Committee did that says, okay, here is what we developed, and here is what we finalized. I think this is the first time that I have added that to the report for you guys and pulled that out of that Steering Committee report and shared it.

MS. MCCAWLEY: It was very helpful. Any more questions or comments on this? All right. Let's move on to the SSC report.

MR. CARMICHAEL: I did have one bit on the Steering Committee, and so that covers the general projects. They met right after the CCC a few weeks ago, and it mainly was to schedule stuff addressing the shutdown, and the South Atlantic had asked about wreckfish, and they wanted the Science Center to report back, and Clay raised a concern that the U.S. fishermen do not access the entire stock, and so that raises challenges for us to assess the stock using data from the U.S., but there is a further report planned for the SSC that they will receive in October to talk more about wreckfish and how it could be assessed and different opportunities for dealing with that, and so that issue is still moving ahead, essentially, and the next step will be an SSC review.

The Steering Committee will meet in the fall. As I mentioned, we need to finalize the workplan for 2021, and that means doing what we call the scope of work for those stocks in the gray box, and black sea bass and red grouper most immediately, and so the plan for this is draft are underway now, looking at the peer review and SSC comments from the last assessments, and those give us a sense of what needs to be addressed for the next assessment, and we'll solicit input from the stock assessment team and from the SSC to get a sense of is there any new research that needs to be brought into these assessments, and so, to meet this deadline of getting it to the Science Center by August 1, so they can do their work before the Steering Committee meets in probably late

September, is we're planning to do a review of this through the SSC by email, and then is there some level of council review that is desired?

We could just run it by the Council Chair, or we could run it by the Chair or the Council and the SEDAR Committee, which in this case turns out to be the same person, or we could run it by the whole SEDAR Committee, or how do you think would be good to get a little council input on this before we send it off to the Center?

MS. MCCAWLEY: What do you think we would realistically have time for? Do you think that we actually have time to run it through the SEDAR Committee at an actual council meeting, or possibly not?

MR. CARMICHAEL: Right, and that's why I'm bringing this up, because it would be great to run it through an actual council meeting, and, as we get caught up on our planning, we plan to do that in the future. In this case, I don't think we have time for that, and we certainly don't to make the August 1 deadline, and so I was thinking maybe an email review with the members of the SEDAR Committee here.

MS. MCCAWLEY: I am good with that. Other committee members? It looks like heads nodding that, yes, they're okay with that as well, and so an email review of the SEDAR Committee.

MR. CARMICHAEL: All right. That's what we will do. Then the next is the SSC report, and so, George, let me bring that up for you.

MS. MCCAWLEY: Thanks, George.

DR. SEDBERRY: Thank you, and good morning, again, everybody. John just reviewed the upcoming SEDAR activities, both the projects that are underway and those that are in the near future, and so the SEDAR schedule had been revised, due to the government shutdown and concerns with the MRIP data, and the SSC had no concerns with the revised schedule that resulted from this, and the SSC participants have been confirmed both for the revised underway SEDAR projects that are shown on this slide and for the future projects, again that John just detailed, in the near future, and so we have SSC participants for all the upcoming SEDAR activities.

MRIP did cause some -- The MRIP concerns have caused some delays in the SEDAR process, and so, as you know, the SSC looked at the revision assessments that have been done using the new MRIP data and determined that -- They were not deemed useful for making catch level recommendations, and, therefore, the ABC recommendations based on the previous assessments for those four species still stand, and so the SSC, at their April meeting, just clarified that for the record, but they do have some recommendations for assessments underway.

Ongoing assessments that have started using the FES data are the primary concern, and that's the greater amberjack and red porgy, for example, and the SSC suggested that we move forward with ongoing assessments and adapt to the new information as it arises and that the council should give priority to assessment of species that are mostly commercial in the meantime, until this MRIP issue is resolved, as the commercial species are least affected by the MRIP data.

The FES survey design, again, the SSC considered that the best scientific information available, but there are concerns regarding the FES estimates in general, the calibration process, and outliers. The SSC discussed the motion from the council's March meeting for an SSC workshop to identify these MRIP data concerns, to identify specific uncertainties and potential bias, and to develop recommendations on how to proceed in stock assessments, ABC recommendations, and evaluating ACLs.

The workshop has been scheduled for the 19th to the 21st of August, and the items that the SSC considered important for this workshop to address, it was a pretty lengthy list, and it's since been pared down, but the SSC is concerned with rare-event species, how to handle outliers in the assessments, the disparity between the new effort survey and the old telephone survey, using the telephone survey in the assessment, but only having FES data to track the ACL, and there's a concern with low recreational catch species, and that the upcoming workshop should have a mini data workshop on species that are currently undergoing the SEDAR process, which is red porgy, greater amberjack, king mackerel, and golden tilefish, so that we can get the assessment process back on track as soon as possible.

The SSC formed a workshop steering committee that has met a couple of times via webinar to develop the terms of reference for the upcoming workshop, and invitations have been sent out to council members and SSC members, and the Southeast Fisheries Science Center and the Atlantic States Marine Fisheries Commission.

During the two webinar calls that we've had, we took the SSC list and pared it down to something that we think can really focus in on the needs that we have to proceed forward with stock assessments and something that can be covered in a two to three-day workshop. The terms of reference, I think the slide says there's a document in your briefing book, and it's not really in your briefing book, but I think Mike had sent that out to the entire council, and so that has the most recent wording and the details.

The steering committee went through several iterations and cut the terms of reference down to what you will see in that document, in order to make sure we can accomplish the essential task of finding a way forward using the new FES numbers in the near term for assessments and for ABC recommendations, and so the focus of the workshop will be on the disparity between the new effort survey and the telephone survey, what's causing it, can it be addressed, and how we can deal with it in the assessments and in setting ABCs.

There is really two terms of reference for the August workshop. The first one will identify the sources of the large disparity between the telephone survey and the FES survey estimates of recreational effort, to identify sources of disparity between those two for a set of species that are currently in the SEDAR process, and, again, those are red porgy, greater amberjack, king mackerel, golden tilefish, and cobia.

We want to determine what portion of the difference is due to the change from the telephone survey to the FES versus the post-survey processing of the data by the Center. Does this post-survey data processing have a larger effect in certain circumstances than in others, and are there any patterns that we can identify concerning how post-survey processing might affect the disparity between the telephone survey and the FES survey?

The workshop will also work to identify a set of critical factors, for example spatial and temporal coverage of the data, the decision to exclude or include outliers or abnormal data, error structures and statistical distributions, that are most likely to contribute broadly to the disparities for many species throughout the South Atlantic. We'll examine the sources of disparity and data issues identified for those five species and for broader applications to other species that the council manages as well.

We would also like to examine the data for species with update assessments using the FES estimates, including red grouper, black sea bass, vermilion snapper, and blueline tilefish, the species that had previous updated assessments.

Then the second term of reference and its sub-parts will establish approaches for using FES estimates for unassessed species, to determine the effects of FES estimates on ABC recommendations, and can they actually be determined for these species, and to recommend different approaches for incorporating large amounts of uncertainty into the estimation of ABC using different statistical models.

The other thing that the SSC discussed at their April meeting was the research plan that John is going to talk about shortly, but I will just say that there are several short-term and long-term plans to address near-future and more distant-future assessments, life history information and things that are needed to conduct those assessments.

The SSC discussed the priorities and generally approved of them, with some edits to the document, and the SSC feels like there needs to be more follow-up discussion to determine if these priorities and previous priorities have been successfully addressed. What happens to these recommendations, and how can knowledge of their status guide future research priorities, and so the council staff agreed that a separate document that enumerates what tasks have been accomplished would be useful for guiding our discussions on approving future research plans.

The SSC also noted that we need a listing of which topics are currently being addressed and if funding or staff are available to address those projects, and the SSC provided edits to clarify and reorder some priorities, and the revised document that John is going to talk about, and it's in your briefing book, reflects those edits. The SSC added some additional projects as well that they felt needed research to address stock assessments in the future, and these include that we need research on gag otolith chemistry and genetics to evaluate population structure, connectivity between adult spawning habitats and juvenile nursery areas, and those recruitment paths. There is additional research needed on gag age structure, as well as bycatch mortality estimates for red snapper for the research track assessment.

Additional research ideas that the SSC thought would be useful would be hydrodynamic modeling to assess connectivity between MPAs and the other habitats, and, again, this connectivity issue is important for gag, as I've already mentioned, but also for the marine protected areas and the spawning SMZs. What is the connectivity between those areas that are protected and then the rest of the habitats that these species occur in that may not be protected?

We need to develop models to predict changes in populations due to climate change, including changes to species distributions, movements, and reproductive patterns, and then the SSC recommended development of a program for monitoring and evaluating compliance with the use

of descending or venting devices as a long-term research need, and, again, we talked about that the other day, that compliance is going to be an issue with this, and we're going to need to know compliance rates to be able to develop revised release mortality estimates. I believe that is it for the SSC report on SEDAR activities. Thank you.

MS. MCCAWLEY: Thanks, George. I really appreciate the discussion that the SSC had about those MRIP estimates, and I think the work that you all are suggesting be done over the coming months, putting the teams together and having those meetings, and the terms of reference that are approved -- I mean, that's exactly what I had in mind for how to proceed on this. I look forward to the discussions that come out of that. I know that there's going to be some challenges over here on the Atlantic, because you don't have all the data streams with the state datasets, like there are in the Gulf, and so I know there's additional challenges here on the Atlantic, but I think it's very important to get this right and to try to help figure out what might be happening here.

DR. SEDBERRY: Thank you, and I think council approval of those terms of reference is on your agenda for this meeting, and so, if you have any suggestions -- Again, we're trying to focus on what we can do to meet the council's needs in really a relatively short meeting, but we'll have a good team of experts there, and so, if you have any additional guidance for that, we would appreciate it. Thanks.

MS. MCCAWLEY: Thank you. Are there questions or comments for George?

MR. POLAND: Thanks for the update, Dr. Sedberry. I was just going back through the letter that North Carolina sent to the SSC kind of detailing our concerns that we had with MRIP and methodology changes, and we spent a considerable amount of time, in that letter, talking about shore mode and some of the disparities that we were seeing from the Coastal Household Telephone Survey and the mail-based survey for species like king mackerel and cobia that are really only accessible from piers and other man-made structures, and we requested the SSC working group investigate that.

I am going through the terms of reference, and I don't know if it's necessarily explicitly laid out in there. I mean, I guess, under Term of Reference 1c, Sub-Section (i), examine the source of disparity in data, but I wanted to make sure that the workshop spent some time looking at that, because the division really felt that partitioning out that mode to shore and beach bank really allowed us to better characterize those fisheries.

Then, under the new estimates, those two modes were collapsed back down into shore mode, and it appears that effort from shore was just applied to landings and expanded to landings for those two species, and I was really interested in seeing if there was some way the workshop could look at seeing if there was a better way to stratify that expansion somehow, through assessments, to capture that, or something like that. I guess my comment is I don't want that to get lost in all of this.

DR. SEDBERRY: I appreciate that, and we'll make a note of that, and we had talked extensively about the Gulf, where there are additional surveys, and we don't have that kind of information available for the South Atlantic side, but we do have things like the North Carolina survey that you mentioned, and we want to make sure that certainly the concerns that are addressed in the letters

that the council has received are addressed in this workshop, as far as we can, in helping to move those assessments forward, and so I appreciate your comment. Thanks.

DR. PORCH: I certainly agree with the workshop, and I actually agree with Steve that we want to be pretty deliberate in these terms of reference, because I can see, even from the presentation, that there were a lot of misunderstandings on the SSC's part, in terms of how things work. For instance, the reasons for the disparity between FES and CHTS are pretty well understood, CHTS being the Coastal Household Telephone Survey, and the sampling frame has completely changed.

Basically, not many people use landlines anymore, and they usually screen them, and the demographics have changed a lot. In fact, it's mostly an older demographic now that will actually even answer the phone, and so that's pretty well understood, but there are some subtleties, in terms of the APAIS sampling design and how the effort gets applied to that, that Steve was alluding to that I think would be really helpful to clarify, and maybe there's even ways to do it better, and I don't know, and so I hope that, when these terms of reference are developed, maybe there will be some communication with Richard Cody's shop at S&T, so we can make sure that both sides understand what is being asked, so they can come prepared.

DR. SEDBERRY: Thanks, and these terms of reference are in draft at this point, and you're right about the SSC understanding of what went on and what goes on with the surveys, and so the MRIP folks that will be there will help, I think, the SSC understand this, so that we can better evaluate the assessments that come out using this data, and I think it will help the SSC to determine the best scientific information available in the assessments. I think it will increase our understanding better than it has been in the past.

MR. CARMICHAEL: Just to follow-up, there are plans to get with the MRIP folks and to say these are the questions the SSC has and just start figuring out essentially the briefing book for the workshop, which is where do you have documentation that's already been prepared for all of the steps that led up to where we are that addresses things like what are the disparities, and I know, from taking part in the peer review and such for this, that there is --

A lot of this has been documented and discussed, and so I think it's going to be a matter of getting that information before the SSC and making sure they can say, okay, we see that this has all been done. I think there's already a conference call planned, if not scheduled, and the request is out there to get folks together and start doing just what you said, and so, in some ways, it is sort of a question, or a point for clarification, more than a we need to go and do extra work for this.

DR. SEDBERRY: Yes, you're right, John. We are working on that, and there will be some additional conference calls that will take place prior to the workshop, so that we're all on the same page and we have clarification from MRIP to the SSC.

MR. BELL: I was just going to follow-up on a little bit of what Steve said, and George is right. When you start looking for things to compare to, on our coast, there aren't a lot, in terms of the state surveys or efforts, but, particularly, I know with Steve, and I know with us, we do have, in the shore-based mode, at least the fishing piers for us, and we do have numbers associated with the number of anglers that fish on the piers, our fourteen piers or whatever it is, each year.

Then, when you kind of look at that, and you see some really high numbers, it's like, wow, and so there are a couple of things that you can use for reference, I guess, and I understand that concern with making sure that we dig in to find out what the issue there was with maybe shore-based, but, in terms of prioritization, you guys only have so much time and focus, and we do encounter council-managed species at the piers, but not as much as we do in the private boat mode and that sort of thing, and so, I mean, it's important to kind of figure out what's going on with the whole dataset and all, but, in terms of prioritization, the shore-based, at least for our purposes, I guess, from the council perspective, might be weighted a little less than the other, but, if we can figure it all out, great.

I think it is incumbent upon us to make sure we have provided you with specific instructions and what it is we want, and the clearer we are in our guidance to you, and it comes out in the terms of reference, then the easier it is for you to do your job, and so are we going to deal with the terms of reference later, or --

MR. CARMICHAEL: As George mentioned, they are still somewhat draft, and I think guidance that you have on these would be good, and we don't have to have, necessarily, full council approval and formal approval, as long as you are happy with it, and I think we would continue to keep the committee informed on these as they're done, and, once the SSC is confident that they are final, then we would share them with the entire committee for any further comments.

The one thing about the shore mode is I think that's sort of captured in this, and it's kind of broad, sources of disparity, but I always thought that like looking into waves and modes and things like that would come out at that time, and possibly, but I think that's definitely one of the things that needs to be on the list of let's make sure we hit on this during this workshop, which would be a more detailed look at it than what the terms of reference will probably do.

MR. CONKLIN: The shore mode has always been kind of intriguing, especially since I don't know any shores that reach out into the federal waters, and so I hope that they would have enough sense not to weight that very high, but I was interested to hear you say that you all were going to focus on commercially-important species only, and I wanted to see if you could elaborate a little more on that and what the reasoning was, just for the record.

DR. SEDBERRY: I may not have stated that very clearly, but the thinking was that if the council could -- In the meanwhile, while the SSC is sorting this out, if the council could maybe have a higher priority on commercially-important species that don't rely on MRIP data, the whole stock assessment process in general can move forward while we're waiting for the results of this workshop, and so this doesn't need -- We don't need to hold up any species that are primarily commercial, because the MRIP data doesn't affect them as much. This is a something to work on in the meantime kind of thing.

MR. CONKLIN: So, by primarily commercial, do you mean the way the allocation works, or how do we define that as a council?

DR. SEDBERRY: We didn't really get into the weeds on that, and it was just kind of an overall suggestion that, obviously -- For something like cobia, where MRIP is going to be a major part of the data, we want to wait for that species, but, for another species where the landings are primarily commercial, maybe the stock assessment can proceed on schedule without waiting for the results

of this workshop. The workshop has now been scheduled, and hopefully the results will be forthcoming soon after the workshop is over, and so it's kind of a moot point.

MR. CONKLIN: That's duly noted, and I welcome the opportunity to run an assessment without the MRIP data. Thank you.

MR. HEMILRIGHT: Given that the MRIP comes in a two-month wave, do they drill down on daily what is caught to equal up to that two-month wave? Does that make sense, what I'm asking?

MR. CARMICHAEL: Yes, they catch -- They go out and they do the sampling, the APAIS, at the docks, and, of course, that is tied to an individual day, and then what they're doing is they're combining stuff over with the effort, and they are combining it over the two-month period, and so there are cases where we can go down and get a sense of maybe how catches are spread out, the catches that came in and were observed at the dock are spread out over that two-month period, and I'm not sure how much they do that within the effort survey.

I think that's still sort of asking people how much did you fish during this period, but, actually, I'm not exactly clear on the final FES and what sort of recall period they were looking at, but, in some cases, there is information that you could go with a smaller period. The trouble with that always is, the finer you try to drill down into it, the less data you have, and so then the higher your uncertainty is going to be, and it's the same reason that estimates given on the wave basis carry higher PSEs and higher uncertainty than the estimates given say for the year, and the same with the region versus the state, but, in general, they do have information that they can look at that kind of stuff, and you can get a sense of catch rates on weekends versus weekdays and all of that stuff.

MR. POLAND: I just want to speak again to investigating the shore mode, and so king mackerel, Spanish mackerel, black sea bass, gray triggerfish, even an occasional dolphin, you will catch from piers in North Carolina, and we're all aware with low intercepts and MRIP and how one intercept could expand greatly, and the whole purpose of this is to better understand this new information stream, so we incorporate it into assessments.

Since shore mode saw the largest increase in effort, and I just did a quick query of MRIP right here, black sea bass total catch, and so it includes discards from the recreational sector shore mode for the entire South Atlantic, there's quite a few years here with over a million fish caught, two-million fish caught, and so that's a pretty significant increase, and so I don't -- I certainly understand that a lot of our species aren't caught from the shore mode, but, if the largest increases in effort are coming from the shore mode, I have some concerns about how that's going to skew assessments down the road and affect these results, and so, at least from the North Carolina perspective, I feel like this is something we really want to get to the bottom of and see.

MS. MCCAWLEY: Yes, I certainly agree. Any more comments or questions?

DR. MCGOVERN: George, what are the dates for the workshop?

DR. SEDBERRY: August 19th to the 21st, and it's in Charleston.

DR. MCGOVERN: August 19th to the 21st in Charleston, and this presentation that you're showing here is -- That's in the briefing book? I couldn't find it.

DR. SEDBERRY: It's not in the briefing book. It was sent out to council members as an email this morning. Jack, were you talking about the terms of reference that they're showing now?

DR. MCGOVERN: Yes.

DR. SEDBERRY: It was sent out, and you should have that as an email.

DR. MCGOVERN: All right. I will ask Mike for it. Thank you.

DR. SEDBERRY: We will make sure you get it.

MS. MCCAWLEY: Any more questions? All right. Thank you so much, George.

DR. SEDBERRY: Thank you.

MS. MCCAWLEY: I am going to turn it back to John for the research and monitoring plan.

MR. CARMICHAEL: Our last bit of business today is to do our biannual, and so every other year, in that usage, review of the research and monitoring plan. We are required, under the Magnuson Act, to inform NMFS of our research and monitoring needs on about a five-year basis, and so, the first couple of years, we did this every year, and things just don't move that fast or change that much, and so we decided that it was a better use of your time to do this every other year, and so, as it happens, we now do this in the odd-number years, and it was drafted by staff from looking at the old plans and looking at the upcoming assessment needs and thinking about things that have come up over the last couple of years, through the SSC or APs or the council, about things that we need to have some better information on.

The first formal review of it comes through the SSC, which George just highlighted, and so now this version includes the comments from the SSC, and so hopefully we can have you guys review this and approve it today, and, if so, then we would forward it to the agency. We do this now so that, in case there are some major changes or you want to do some things and look at it again, we do have the opportunity to still bring it up again in September and get it to the agency, and so that would really be up to you, but, if you're pretty comfortable with what we have here, and maybe some minor changes or suggestions, we can go ahead and get it approved here at this meeting.

MS. MCCAWLEY: All right. Are there questions?

MR. CARMICHAEL: Are there any just general, overarching questions? If not, I could just go through some of the highlights.

MS. MCCAWLEY: Sure. I would love it if you went through some highlights.

MR. CARMICHAEL: Everybody is pretty good with that general description, and so what we start here is trying to give some very specific things that are needed for the assessments that are upcoming, and this is one of the suggestions that Dr. Ponwith made, when she was the Director of the Science Center, about making the research plan very specific, because that will help then the agency go get the resources that are necessary.

We have a number of things here that are needed, as George highlighted, for the upcoming assessments of say Spanish mackerel and gag. Often, we see things about getting more maturity data and getting stock structure information and looking at steepness, and this hits for Spanish mackerel, because there was an assumed steepness used. Gag, some of the issues are the larval transport, and misidentification with black grouper is highlighted, because that was a big problem that hit on the black grouper assessment and had that assessment actually stopped, because of the lack of ability to distinguish that in the landings.

Another point about these is many of the assessments will have requests also, and so you can say, well, there's nothing in there about getting a new survey. Well, getting a new survey is not something that can be done in the next, say, couple of years, and so there are, in many assessments, much larger, more in-depth, more involved research needs that aren't highlighted here in this section, and this is just getting things that the SSC, in particular, thinks this could actually be done in the time that we have before the next assessment.

On the red snapper research track, there's a lot of interest, not surprisingly, given all the discussion this week, on updating the bycatch mortality estimates, and particularly with things like descending devices and if they're being used, and could that potentially be a reason to have an improvement in that discard mortality estimate.

Gray triggerfish is one that has been assessed a couple of times, or attempted, I should say, and one of the big issues in gray triggerfish has been the age determination, and that actually was a big point of deliberation on a recent Gulf of Mexico gray triggerfish assessment, and so we've been watching very closely, to see what happens there, but, obviously, when this research track comes up in a few years, we're going to need to be able to address age determination. That assessment is a few years out, and so that means we actually have time to get some age determination research probably done in time for it to be considered.

Black sea bass, one of the concerns is the discard mortality from hooking in shallow water, and then getting a better estimate of natural mortality. Red grouper, there were concerns in the last assessment about what are the size cutoffs for age and length composition information, and there's not a lot of data on that, and so how sparse data is too sparse, where you shouldn't use it? In some ways, that's a global question across many assessments. There was some concern raised in that about how the likelihoods were developed and fitting the age and length composition, and that could be some modeling work that could be done in time for that next assessment.

Mutton snapper would be the next FWC assessment after yellowtail. Again, we're seeing the common thread of discard mortality estimates, and that's not surprising, and that really gets to most all of our stocks. There was also a concern with the conversion factors for landed weights to whole weights, and there might need to be some updates on that, and that's some information that, for a lot of stocks, we're relying on studies that are quite old, and that information could be updated.

White grunt, I think Marcel noted a bit about some of the questions about stock identification studies for white grunt, and we know that there's at least two stocks, it seems, or maybe three, when you go down into the keys and around Florida. Are there more? There's been some thought that maybe there were sub-populations of white grunt, et cetera, and so, when we do the white

grunt assessment, we're going to have to define that stock, and so now is the time to start getting that information, because genetics is one part of the puzzle, but, as we know from our past stock identification stuff, we've looked at a lot of other things.

Then one of the things, and this has certainly come up at the council over the past two, is getting more information back to the council on some of the research needs that have been requested in the past, and one of the big ones was the request from the council to get annual abundance indices for all managed stocks that are sampled by SERFS and how can we merge the indices from the new sampling methods to those in the older sampling methods, so that this can be used in the assessments, and the council wanted information back on this by June 1, 2018.

I will just say, by way of explanation, and not necessarily defense, if we think back over what has happened in the last couple of years, in terms of just trying to keep the assessments that are underway on track, as we've dealt with these changes in the MRIP data, and the government shutdown and all the challenges we have faced, and I'm not too surprised that making more progress on this hasn't happened by the required deadline, but I think getting some feedback with the SSC on this and where it stands and what can possibly be done would be a good step.

The next section then gets into the long-term stuff, as I said, and we have more things like looking at protogynous stocks and looking at general projection performance, and so you know that your ACLs and your ABCs really come out of the stock projections, when we look ahead into the future, and so how well have those worked, and, again, in the race to keep assessments going, we haven't spent a whole lot of time being retrospective and looking back and saying, well, you know, in the last assessment, this is what we predicted recruitment would do and the stock would do, and now we've got ten more years of data, and what actually happened, and so this is something that could be done maybe as a way to improve our assessment performance.

Spanish mackerel, as long term, it needs some observer coverage, as highlighted. For gag, there's a couple of big things here on gag about the otolith chemistry and genetics and bringing in more tagging and environmental variation and historical changes in sexual maturity, and so these are all things that would be nice to know and would improve the assessment, but they may just not be practical to get done in the time that we have available, but we need to get started on getting some research in these areas.

Black sea bass, this is one where range shift has been raised, or certainly expansion of the range has been raised. Red grouper, and probably a number of the other shallow-water groupers, we just don't have a good sense of recruitment and source of productivity and what are the connections between the Gulf of Mexico and other areas in our shallow-water grouper populations, and I think, again, if you recall Marcel's presentation on the survey, there is a lot of those shallow-water groupers that are showing an extended period of less than expected abundance, which probably translates back to they have not been doing the recruitment that we would hope.

We know, from the red grouper assessment, that's the case, that we're not getting the recruitment that we had anticipated from this stock, and we don't really know why. Are eggs not being born, or are eggs not getting in the right place? Are the larvae being moved, or the larvae being consumed? Who knows, but we've got to have a better handle on that to really understand what's going on with that stock.

Mutton snapper, age and gonad samples are needed and getting more information on the discards, and so we see discards coming up here again, and we see validation, and so this pretty well covers the things that have been highlighted in our past assessments, and I will pause here to see if anybody has a question.

MS. MCCAWLEY: Are there questions?

MR. BELL: Not so much a question. As you kind of went through the short-term and moved into the long-term needs, it's kind of obvious, I think, that, at least in my vision of how our Citizen Science Program might work, that this could provide like a menu for things that you -- If there are certain areas or certain data, needed data, you can kind of look at them to see, well, could we get a citizen science project going to kind of fill that, just like we're doing with the scamp release stuff now, but it does -- Maybe that's a way to kind of also blend the two of those together a little bit better, because I think that would, to the degree we can -- The Citizen Science Program, if you can address specific needs that you have listed, it makes it much more relevant and useful, and then the data actually can help out, and I think that was sort of the intent with that eventually down the line, and so it's kind of a menu, I guess, that perhaps citizen science could look at and select from if -- Again, it's all about funding and that sort of thing.

MR. CARMICHAEL: Mel, the plan, and the way that citizen science has approached this is, once this is approved, then it would go to -- There's a working group or something within the citizen science family that would then look at this and do just what you said, like as a menu, and so which of these would fit in as citizen science projects, and then they would highlight those within what would be a separate citizen science research priorities and possibilities document.

MR. BELL: One other specific thing related to red grouper, and this came to my mind when Marcel did his presentation, and so, perhaps with red grouper, there are two different concentrations, or areas. If we have tissues that we could run genetics on, it might be interesting to see if red grouper are actually -- Just kind of like with the white grunt, and it may have something similar going on with red grouper, and that might be interesting to try to figure out, if we've got the samples, some of them anyway, and that would be a way to start.

MR. CARMICHAEL: So maybe add red grouper genetics to the long term? I think that's a possibility, yes.

MS. MCCAWLEY: Anything else? All right.

MR. CARMICHAEL: That was the always exhaustive list of stock assessment needs, and now we're getting to some of the bigger-picture needs that the council has and some of the more specific management-related needs in these next few sections. The third area is the need to assess SMZs over the next five years, which is document spawning, collect baseline data for spawning, evaluating the sampling program, develop methods for incorporating the impacts of these into management actions and status, and looking at a hydrodynamic model to look at connectivity between these MPAs and habitats.

Hopefully what these do, and the intent of these documents is always, and we actually heard this when we met with the S-K folks, those who did, is this is the type of research needs that then make their way into the RFPs for the various grant programs that the agency has, like CRP and MARFIN

and S-K, and it also makes its way into the center and the agency work plans about what do they need, and so one thing you have to keep in mind, is that every other council is doing this, and every other region has a long list of these same types of things, which is why sometimes not everything makes its way to the top, but hopefully, eventually, through all these different opportunities, more of them will find their way in. There is certainly a lot of thought that, as some of these area-based things are in place, where citizen scientists could maybe come in and play a role, because it is so time consuming and expensive to put scientists on boats and have them out here in these different areas.

Closely related to the spawning SMZs is the needs for MPA monitoring and things that could be done, which is maintain monitoring inside the ones that we have, start to do some information on spawning, and so we have a common thread of trying to understand are fish spawning in these areas that we've set aside, and do the survey, and so understand what is living in those areas, evaluate our sampling programs, and, in general, the council has a great need to know better what's going on in these closed areas, these MPAs, these spawning SMZs, versus what is going on in other parts of the environment, and are we actually giving fish some refugia and some places to live and spawn and grow without being vulnerable to so much fishing.

MR. SAPP: While we're here, I would like to have documentation as to how the research is being done, the method of viewing these fish, and is it on rebreathers or free-divers or traditional bubble makers that, in my opinion, don't do us much good?

MR. CARMICHAEL: I know, in a lot of cases, we're looking towards say technology. Can we tag fish and find if they will stay there, and can we do sonic tagging and stuff, and so that would be one way, and so that would be good to look at some of the specific studies and people going down there, versus using technology and stuff, and I know there was some work at MREP they highlighted that's been done off of -- I think it was right off of Tampa and on gag.

I think they were working on release mortality, and they tagged a bunch of gag, and they had sonic tags in them, and they had a really nice array, and, personally, I was really struck by how much those fish stayed within the particular little reef segments that they were on, and so it kind of gave me some encouragement for that kind of work here, that we could probably have projects that tag some fish in these different MPAs, and there's a chance that some of them actually are just hanging out in that area, which is kind of neat, and that, to me, is good citizen science, working with fishermen that are going out there and have the resources, train with some scientists to insert the tags, but all of these arrays need support. People need to go down and bring the data boxes up and swap the data boxes out, divers and stuff, and there's a lot of people that dive that might be willing to volunteer to help keep some of that stuff up and maybe go down and look at the areas themselves.

MR. BELL: To that, I know that our two spawning SMZs in relatively shallow water off of Charleston -- I mean, we've done extensive evaluation on those sites by blowing bubbles, and it has worked fine, but we also have acoustic receivers on those sites, and that's how we know that we also have great white sharks on those sites, which is interesting, but you can do a lot, and keep in mind that most of our MPAs and spawning SMZs are in fairly deep water, but I know the two that we approved recently are certainly divable, but you can use ROVs, or you can use other technologies, but we're set up right now with acoustic receivers on those sites, if we wanted to tag some grouper or things like that with acoustic tags.

MR. CONKLIN: I think we should make that a priority. I know that fella, Ed Walker, over in the Gulf was talking about doing that, and they were talking about the work that's been done out of Tampa, and he has kind of kept me in the loop pretty good, and I don't see any reason why we shouldn't go ahead and move forward with that and use him as a resource if we need to, because they've got it going on, and we're sort of lagging behind. I think we've had one outside-funded research -- Two trips in one of the SMZs that I know of, and that's it, and so we need to solicit some people and get onboard.

MR. CARMICHAEL: So maybe highlight something to do like an acoustic tagging study of fish within our closed areas, MPAs, and spawning SMZs. To me, when I think about looking at CRP projects and priorities in the past, that's the kind of thing that can actually make its way clearly onto the needs, and it's kind of attractive work, particularly with all of these acoustic arrays that are out there. You've got to keep using them, and you've got to keep projects going to keep them in the water and keep them maintained. I think we could highlight something in here about a general need, that the council would really like to see an acoustics tagging-based study to evaluate residency times and fish that are on our MPAs and closed areas.

MR. CONKLIN: I am not on the committee, but, if you all want to conjure something up, that would be great.

MS. MCCAWLEY: Any more comments on this section?

MR. WHITAKER: John, I know there is at least a dozen graduate schools up and down the east coast in this region, and I am wondering if we've ever made an effort, or would it be appropriate, to provide these research needs to marine graduate schools on the Atlantic coast?

MR. CARMICHAEL: We do. We make them available certainly through the folks that are on our SSC, and we encourage folks on our SSC to spread it out far and wide to different colleagues and stuff that they know. I don't know that we have, right now, any more formal way to reach out to these different schools. It's something we could look at, and I don't know if they have any sort of way to accept them, or if it's more just very much a personal basis of reaching out to an individual researcher. I think, if we had some way to make this more widely available, certainly it would be great.

MR. WHITAKER: Well, not to belabor this, but I have given lists to the College of Charleston, and a number of those has been taken up and used in the past, and so I think it's just a matter of getting to the director of the department or something like that. Anyway, that's enough of that.

MS. MCCAWLEY: Anything else?

MR. CARMICHAEL: That is kind of the area-based management needs, and we have a section here on general long-term needs that the council has identified, and it's on a variety of topics. Life history traits, that's almost always needed, and particularly getting information on the smaller fish that maybe aren't vulnerable to the fishery. Long-term monitoring of our age structures, which means having a way that we can get the age samples we need and keep track of them, and there is concerns with being able to predict changes in shrimp, corals, all of these species, that may be due

to climate change, species distribution, movements, and reproductive patterns, and so just that one really captures a lot of the general questions that come up around this table.

Cumulative economic and social impacts, we don't have a lot of data on the economy or the social impacts of the fisheries and the regulations, and so that's kind of been a long-standing one that we've had a need for a number of years. Not surprisingly, there's one here to evaluate management strategies to reduce discard mortality in the snapper grouper fishery, and we're kind of working on that. We're looking at the descending devices, and things continue to develop as ways to reduce discard mortality, and so that's a long-standing research need.

Age determination is really needed for most of the stocks that we manage, and evaluating the surveys and biological sampling information, and that covers all of the managed stocks. I will say, on this, that I know the Center is working on a comprehensive overview/review of their survey efforts, and that's probably going to play out over the next year or two, Clay, and you're going to try to look at what you're doing and what they need to be doing and try to come up with -- I guess to say a long-term plan forward for your monitoring strategies. I would certainly say that that falls into addressing this type of research need.

We mentioned tagging studies here in general, talking about movements and demographics, which would be more of the traditional tagging. Updating the reproductive work on shallow-water groupers, and there is concern about this, and so you're seeing this a lot, and there is latitudinal variation in what's going on with spawning and habitats with these poor shallow-water groupers. Then juvenile habitat and abundance of the shallow-water groupers.

A program for monitoring and evaluating the compliance with the use of descending and venting devices, and so certainly that's one that is moving to the fore, based on the things we've discussed here, and a better understanding of what's going on there. Then we have a number of habitat research needs, which will be above and beyond the area stuff that we've talked about, mapping coral distribution and monitoring the general health of coral reef systems.

The last section is a number of specific monitoring priorities, and so getting more at the monitoring program and the information the council needs on a regular basis, and this is one here of expressing support for MARMAP and raising the funding back up to the levels that they used to be before a series of cuts have kind of limited the capabilities of MARMAP, and we've lost some of the survey coverage, and I think Marcel has noted that in the past and in his reports. Then hitting and MARMAP and SEAMAP.

SEFIS, we've seen the video, and we know that the video is a great tool to add to these traps, and it would be nice to get some things like the stereo cameras, so we can start getting length composition of those fish that like to come up and check out those cameras, as we saw, and getting some information where they can get out and get MPAs and SMZs, and so this is one that certainly the council has thought is important for a long time, is just beefing up our survey presence, and, again, that will be addressed in the effort the Science Center now has underway.

Gulf king mackerel mixing rate isn't the issue that it was probably a decade ago, but it still is out there as a potential, and it's one of those things that folks feel like should be looked at fairly regularly. Well, not fairly regularly, but I will say intermittently, because it could change. You

probably don't need to do it annually, but, on a five to ten-year basis, we should probably be keeping track of it.

Ecosystem management, that's a topic that has certainly been talked about a lot, and we just need a general overall monitoring and research program of the ecosystem itself, so we can know things about these trophic interactions and the food preferences and predator-prey. All of that is important for all of the ecological monitoring that the council has been working on for a while.

Monitoring programs for dolphin and golden crab, we hit on two stocks that have not been assessed and we really don't feel like have the data to be assessed, and we need some way of starting to monitor those populations. Dolphin, obviously, is very tough, as we talked about for quite a few hours, the nature of that fish, the migratory nature of that fish, and certainly we are not the only ones in the world who are exploiting that stock of dolphin, but it seems like we need to come up with some way of better monitoring them, and we have plenty of other stocks that range around through the oceans, and we've found ways to do that. This is one the council has had for a while, and it's certainly a very important and valuable fishery for us.

This bullet here gets at kind of the MRIP stuff that we've talked about, and I would say that's one that a lot of progress has been made, and who knows if you ever get to the point where you say mission accomplished here on getting MRIP straight, but we're certainly continuing to improve that, and making use of advancing technologies is a good idea.

Then our ability to deal with commercial and recreational landings and discards, and we've made some progress on that with reporting, and discards probably continue to be a problem. I am optimistic on our experience with the SAFMC Release and looking at scamp, that the technology some day is going to give us a way to really get information that we need on our discarded fish that otherwise we can't look at.

Then the last section then is asking for information on reporting back, and so we ask for SAFE reports, and we've been asking for those for many years. What the Science Center has been doing is providing us a dataset, which is incredibly useful, that says this is the final data for the year, and it hasn't been quite making it by June lately, and, again, it comes back to all of the things that the data team has been dealing with in the Science Center, and it's been pushed back to October in some years, but it's certainly been something that is useful, and so we look forward to working with the Science Center, and Dave Gloeckner in particular, in continuing to get that data dump, and that covers the headboat, the MRIP, the TIP, the dealer reports, and the commercial reports.

A lot of times, when you guys ask some of these questions that go over to Mike E., and he comes back with landings and different details, it's using this dataset that allows him to do that kind of work, and so it's been useful for us, and it has reduced the number of things that have to become a request back to the Science Center to pull their people off of preparing for assessments. We ask for it by October 1, and you guys do get a report on this, on SEFIS, and I think, a lot of times, it has come in at the December meeting when you see it, just about the sampling effort and what's been going on there.

Then the last report requested is for the Science Center in June, which is what's going on, to implement the research recommendations in this, and I will say one thing that has really helped at the SSC level, is they have added a regular agenda item at each meeting for the Beaufort Lab to

update the SSC on what's been going on, in terms of research and monitoring there, and Erik has been doing a really great job of reporting back to the SSC, and I feel like that has really helped the communication, and some of the things that are in here are a result of that, and there's things that have been able to be dropped off, in some cases, because we know that they are working on it.

Then the last bit is just a rundown of our assessment priorities based on the type of assessment and has this been targeted for an age-based assessment, versus maybe a production model or some other assessment, and a summary of when all the assessments are being done. In general, most of the stocks that we have prioritized as saying things that the council would like to have assessed in some way, they have been assessed, or are on their way to being assessed, or they have some challenge that really stands in the way of just doing say a Southeast South Atlantic SEDAR assessment, and so dolphin there, of course, is the big example, and that's going to need some international cooperation and approach. Spiny lobster, we're aware of the issues with spiny lobster, and we are really relying upon what settles and making the most of the productivity that we get.

Some that are there that haven't really been considered are these ones on the lower list that aren't targeted for age-based assessments and have not been scheduled, and, at some point, we're going to have to think about these, when we talk more about interim analyses with the Science Center, what is the role of these stocks, but certainly the ones that we've highlighted for upper-level assessments, age-based type assessments, we're doing very good on. I think that does conclude it. That's the rundown of what's in your research plan.

MS. MCCAWLEY: All right. Thank you. Are there more questions?

DR. MCGOVERN: I don't have a question, but I just -- This research plan is very helpful to our grants folks, and every year we're asked to update the MARFIN priorities and the request for proposals, and we use this, along with information that we get from the Gulf Council and the Caribbean Council, to update the priorities.

MS. MCCAWLEY: I agree that this is a great, comprehensive list, where these items can be found in one place. Any more questions or comments?

MR. SAPP: A quick comment. I've got to get a little something off my back here. A few times here this week, I have felt a bit belittled with a comment or two after my own, and just recently here with the thought of, okay, well, we do our research with the bubbles, and it's just fine, and technology has to improve. Fish, believe it or not, do get smarter and learn to avoid us. If they didn't, a drone spoon and six feet of wire would still win king mackerel tournaments, and it doesn't. Dredge fishing wouldn't exist in billfish tournaments, and kites wouldn't exist in fishing tournaments. You would still use the old technology, dragging a dead ballyhoo, and stand a chance. It's not the case. We have to improve our methods and our studies and our research, the same way fishermen have to improve their methods to continue to compete and be relevant.

I regularly get frustrated with our game here, and it's not a game, and it's important, and it all matters a bunch, but open our minds a little bit here, guys, and let's continue to improve our methods and don't shoot down thoughts just because it's not the way it's always been done. I was involved with a group that tried to -- The Our Florida Reefs Program tried to shut down a very

large portion of the fisheries from here to Port St. Lucie south, and all of their research was done on air with bubbles.

Well, fortunately, Keep America Fishing showed a study from the University of Florida where they did work inside those MPAs down in the Keys, and they went down on air, and they did their fish counts and went back, and 40 percent more mature fish were seen on rebreathers than were seen on traditional bubble diving, making the what we call bubbleheads, making all the noise, and so it's real, and please stop belittling comments just because the belief is that in your region it's not necessary. This region is enormous, and it is necessary in some, especially in places like south Florida, where the pressure is immense and intense. Maybe in South Carolina it doesn't matter, and maybe they don't see divers like they do elsewhere, but they certainly do in south Florida.

MS. MCCAWLEY: Any more comments? I think we need a motion to approve this plan.

MR. HAYMANS: **So moved.**

MS. MCCAWLEY: All right. We have a motion by Doug, and it's seconded by Mel. All right. **Any objection to approval of this motion? Seeing none, that motion stands approved. The motion is to approve the SAFMC research plan for 2020 through 2025.** All right. That's all for this committee.

(Whereupon, the meeting adjourned on June 13, 2019.)

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Certified By: _____ Date: _____

Transcribed By:
Amanda Thomas
July 23, 2019

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