GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

REEF FISH MANAGEMENT COMMITTEE

Webinar

April 13-14, 2021

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5
6 - - -
7

TABLE OF CONTENTS

- - -

TABLE OF MOTIONS

PAGE 84: Motion to add a new Alternative 3 to modify the red snapper overfishing limit based on the overfishing limit from the SSC's March/April 2021 meeting (25.6 million pounds) and regain the current ABC of 15.1 million pounds. The motion failed on page 89.

PAGE 89: Motion in Action 1 to make Alternative 2 the preferred alternative. The motion carried on page 91.

PAGE 112: Motion in Action 1 to add a new Alternative 6 that would change the state-specific red snapper private angling component annual catch limits using modified percentages from those identified in Amendment 50A in state survey currencies through 2023. Alabama would retain the ACL that was issued in Amendment 50A (1,122,662 pounds). The motion carried on page 115.

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The Reef Fish Management Committee of the Gulf of Mexico Fishery Management Council convened via webinar on Tuesday morning, April 13, 2021, and was called to order by Chairman Martha Guyas.

ADOPTION OF AGENDA
APPROVAL OF MINUTES
ACTION GUIDE AND NEXT STEPS

CHAIRMAN MARTHA GUYAS: Let's start with a little chat about our agenda. Late yesterday, Kevin distributed a presentation, and there was some, I guess, discussion about when that will be discussed at this council meeting, and so we have a very full Reef Fish agenda.

That item was brought up under Data Collection, and so, Mr. Chairman, I am going to suggest that we cover that when we cover Data Collection in Full Council, because I just don't know that we will get there today, and we have a lot of ground to cover before we even discuss, I guess, anything for Other Business. I don't know about your thoughts on that, Mr. Chair.

DR. TOM FRAZER: Thank you, Martha. I didn't hear all of that, but I guess we have a little technical issue here, but what I was able to glean is that you would like to consider the presentation that Mr. Anson provided and bring it up in Full Council under the Data Collection Committee, rather than do it here, and is that correct?

CHAIRMAN GUYAS: Yes.

DR. FRAZER: I think that's the appropriate thing to do, and we will bring it up in Full Council under the Data Collection Committee. Thanks.

CHAIRMAN GUYAS: Okay. Are there any modifications or additions to the Reef Fish agenda for today?

MS. LEANN BOSARGE: Madam Chair?

CHAIRMAN GUYAS: Leann.

MS. BOSARGE: Sorry, but I thought it might be easier to just jump in on this. I just have one item for Other Business that will take like maybe ten seconds, and it's just a question on the historical captain permits.

CHAIRMAN GUYAS: Okay. Historical captain permits. Anybody

else? Hearing none, can I get a motion to adopt the agenda as modified, or is there any opposition to adopting the agenda as modified? Hearing none, we will proceed with this agenda, with one item of Other Business.

Next on our list is Approval of the January 2021 Minutes. Are there any modifications to the minutes? I'm sure that everyone has read them very closely several times. Okay. Hearing none, is there any opposition to adopting the minutes as written? Hearing no opposition, those are approved. We do have an Action Guide, Tab B, Number 3.

DR. FRAZER: Martha, we're having a really difficult time hearing you on our end, and I'm not sure if it's a volume issue on your computer.

CHAIRMAN GUYAS: I'm on my phone, on speaker phone, on full blast. Let me try some headphones.

DR. FRAZER: Okay. We'll try to accommodate on our end. Sorry. Keep going.

MR. ANDY STRELCHECK: Tom, I'm not having any problems hearing her, and so I'm not sure where the problem is. I don't know if others are.

CHAIRMAN GUYAS: Do you all need a minute to fix audio, Tom or Carrie?

DR. FRAZER: Go ahead, Martha. I think we'll get it squared away.

CHAIRMAN GUYAS: All right. We do have an Action Guide, and it's Tab B, Number 3. We'll just go through that item-by-item as we get to each item, and so, with that, if staff is ready, let's move into Tab B, Number 4. I don't know if somebody would like to introduce this before Richard's presentation. Maybe that someone is Ryan or John?

STATUS OF NOAA FISHERIES MRIP 2020 RECREATIONAL FISHERIES CATCH ESTIMATION PROCESS

MR. RYAN RINDONE: That is me. Dr. Cody is from NOAA's Office of Science and Technology, and he is going to present the methods that they are using for resolving gaps in MRIP's recreational catch and effort data for 2020, some of which was postponed and some of which remains postponed, due to COVID-19.

The pandemic resulted in varied impacts, depending on the state, and state-specific and federal suspension of sampling activity varied by state and by region, and that was done to comply with respect to regional health ordinances. Dr. Cody is going to walk you guys through NOAA OST's approach for resolving these data gaps, and you guys should consider the information presented and provide any recommendations.

CHAIRMAN GUYAS: All right. Thanks, Ryan. Let's move into that then, Tab B, Number 4. Richard, I assume you're on and ready to roll.

DR. RICHARD CODY: Yes, I'm on. With Ryan's introduction, I probably don't need that first slide, but, basically, this is a status update on our recreational fisheries landings catch estimation process for this year, and, as Ryan pointed out, we've had some challenges in 2020 when it comes to data collection and then the data gaps that have resulted from that and their effect on the estimation process.

With this presentation, basically, I am providing an overview, and what I hope to do is to describe the disruptions to the survey operations, in terms of the effort surveys as well as the catch survey, describe the data gaps that we experienced, and then introduce the catch estimation strategy that we used in 2020, with a brief introduction to the methods.

The methods themselves are fairly straightforward and simple, and I will provide a rationale for going that route, rather than a more complex approach. Then I have some information on the publication schedule and potential impacts beyond 2021.

For the 2020 year, data collection really has proceeded as normal, I would say, for the FES survey, the Fishing Effort survey, and for the for-hire telephone survey, particularly in the Gulf, and so there were no real disruptions to either of the main effort surveys that we conduct.

However, there are data gaps associated with the Access Point Angler Intercept Survey for 2020, and this is our dockside survey that collects information on catch rate, but it also provides, more importantly -- Or not more importantly, but as importantly, is some of the supplemental effort information that's needed to adjust effort estimates that come from the FES and the for-hire telephone survey. Basically, it provides the information that is used to apportion effort to area fished, and then also to account for off-frame effort with both of those surveys.

Starting in Wave 2, we started to see the beginnings of disruptions to the survey, and this began in, I would say, mid to late March in most states, but it was particularly noticeable in April, in practically every state that we operate in, but I will say that most states had resumed sampling, to some degree, at some point, in May, or by the end of May, and the exceptions were mostly in the mid and north Atlantic, where we had a couple of states that didn't resume until July or August.

As far as headboat sampling is concerned, we don't conduct headboat sampling in this area here, but, in the north Atlantic and mid-Atlantic, that's been suspended, and so we don't have observer program coverage up there, and I would say, for the Southeast Regional Headboat Survey, in the South Atlantic and Gulf, we see a similar effect, where sampling was suspended.

This is sort of a graphic of the extent of the data gaps for the 2020 season, and you will see, on the far-left column, there are numbers listed 1 through 13, and that's really -- Those are just the months, and, on the graph itself, what you have is 2020 data expressed as a percentage of the average for the previous three years.

What we do is we look at the numbers of intercepts that were collected in 2020 and express that as a percentage of the average that we received in 2017 through 2019, and, depending on the colors, you can see there are different degrees of coverage gaps, we'll say, and so the green blocks refer to weeks and refer to the different regional components of the various state surveys.

To the far-right, we have the Gulf surveys in Alabama, Florida, and Mississippi, and you will see that, depending on whether there are separate regions in states, you may have more, a broader, spectrum of blocks, but the main thing to note here is that, from April, basically April, within nearly all of the areas, we had more or less a shutdown of the survey, and so there's an extensive gap for that timepoint.

You will note though that there are data available for March, and then also, in May, we see a resumption of activity, to varying degrees, depending on which state you're looking at, but you'll notice that, for the most part, once sampling resumed, we are getting coverage in excess of 75 percent of the average for the past three years, and that average can vary up or down, and so I think, if you're looking at the yellow boxes and the green boxes, they are pretty much in line with what we have for the

previous years.

You can see that, throughout, there are gaps that extend, depending on the area within the state, or the region within the state, and you will note that, in Florida for instance, there are a couple of blocks here, and I don't have them labeled on this, because the graph is a little bit too small, that extend throughout the year, where there are gaps that persist.

The last slide I showed you referred to the angler intercepts, and so it was basically an assessment of the loss of intercept data, we'll say. With this slide, we looked at length measurements, and you can see that the pattern is basically the same, but there are more gaps here and there, and the rationale for that is that, even with resumption of sampling activity, state requirements, and general just requirements for social distancing, did affect the ability for samplers to collect data on lengths of fish. Even though sampling had resumed, and interviews were being done, we experienced situations where we were getting less data from anglers, just because of the risk for personal distance.

This is a slide showing the weight values as well, and you can see a very similar pattern, again, for most of the states, and you will see that, for the Gulf, we're looking at the three states on the far-right of the graph.

As far as data imputation and estimation, you're seeing that we had fairly -- In April in particular, a loss of data there that was fairly substantial, but we had varying degrees of coverage throughout the rest of the year, and then prior to April, and so APAIS sampling suspension, and the resulting data gaps, they did vary by state, depending on when they kicked back in their sampling again, and we did keep in touch with all of the states, through the Gulf Council in the Gulf and through ACCSP in the South Atlantic and the Atlantic, and we maintained a sampling tracker.

I do note that, in this slide here, there's a reference here to the 2020 sampling status tracker, and that, I think, link is dead in this document, but we can provide that, if people want to find out more about the gaps or how we documented them.

As far as the imputation approach to fill the gaps, we used an approach that used 2018 and 2019 data collected within the corresponding 2020 data gaps, and so, for those graphs that I presented early on, you will note that there were some grayed-out, or dark, boxes, and those would represent the data gaps,

and so those, technically, would have been filled in with data from 2018 and 2019.

It's not quite as simple of a picture as that, and it would depend on the estimation domains in question, and so, depending on whether you're looking at mode or area fished, the gaps could be more or less, but, generally, that's the approach that was used, and so gaps are identified within the different estimation domains and then filled with 2018 and 2019 data within those gaps. Any, we'll say, domains where we had 2020 data, we didn't do that process at the outset.

To account for the fact that we were using two years of data to fill in these gaps, basically, we weighted, by a factor of two, to account for the fact that we were including two years to fill those data gaps. The process, as I said, is a fairly straightforward process, and we didn't -- We tried to deviate as little as possible from the design, the survey design, that we have in place, and the idea was that, the simpler the process, the more reproducible it is and the quicker we could get it on the street, so to speak.

We did discuss the methodology with MRIP consultants from Westat, Jean Opsomer and Mike Brick and others, and we did receive their advice, and they were in agreement that the methodology was adequate for the purposes, and so a standard two-way estimation.

You will note that, throughout the year, we did not produce estimates by wave after Wave 1, and so the standard methodology that we use, that we'll be employing to generate those two-month wave level catch estimates, for both catch and effort, and so those that are in place for the 2020 estimates, and I will note that the 2020 estimates will be available at the two-month wave level also, and so we won't just be producing the annual catch levels, but we'll be producing wave-level estimates in addition to those.

The rationale behind the data imputation and estimation, and I mentioned a little bit about this already, we did consider more complex methods, and the decision was made that these methods would require a bit more resources, in terms of evaluating their potential for use, and also getting them in place. The danger with putting a complicated method in place is that -- And having a deadline that you're trying to adhere to, is that the time needed for evaluation may be more intensive, and it may require a peer review, in some cases, if the methodology is complex and involving modeling procedures.

Then, also, in discussions with the MRIP consultants, we determined that there would probably be a larger deviation from the standard MRIP estimation methodology. I mentioned earlier that we wanted to keep this as close as we could to the normal way that we do our estimation.

Then the other component that I didn't mention is that, for a more complicated, or a more complex, approach for imputation, or potentially a modeling approach, we would need auxiliary information, and we did attempt, early on in the year, to put in place some modifications to the dockside survey and to incorporate some questions that would get at angling behavior in the previous month, but, in going through the process for the requirements for the Paperwork Reduction Act approval, the White House OMB declined to approve those changes, and so we weren't able to get that in place for 2020.

Then the other point that I will make is that we will revisit the 2020 estimates as soon as the 2021 estimates are available, because, right now, we're using the two previous years, with 2018 being the least proximate year, and so it probably would be preferable, in the future, to at least look at the potential for using shoulder years, where you have 2019 and 2021 data, and these can be compared to what we have for the current method.

For presentation purposes here today, the only thing that I can present are the effort estimates, and what I have is 2018 to 2020 effort estimates by region, and then at the annual level, and then broken out by charter and headboat mode as well, and then I will do a presentation of those effort estimates with and without imputed records from the APAIS survey.

I can't present the actual catch estimates at this point, because we're waiting for approval for release of those from NOAA, but those are expected following the meeting, in the next few days.

On this slide here, we have the 2018 to 2020 effort estimates by region, and the two blocks, we'll say, on the far-right of the graph represent the South Atlantic and Gulf, but, for comparison, you have the New England and Mid-Atlantic regions as well, so that you can get an idea of -- You can compare what we see in the Gulf and the South Atlantic with those regions.

If you look at the graph, you will see the blue, the first bar, is 2018, and the second is 2019, and the green in 2020, with imputation involved, and, as I mentioned, for the effort

estimates, we do use some of the information from the Access Point Angler Intercept Survey to adjust for area fished, but also to adjust for off-frame effort, and so those would be anglers not picked up in either the FES -- Effort, I should say, not picked up in the FES or the for-hire telephone survey.

What you will see here is that, in keeping with 2018 and 2019, 2020 effort estimates are fairly similar, and we do see a slight drop in the New England region, but, for the most part, in the Mid-Atlantic and the Gulf, we see a slight rise in effort estimates, and then, in the South Atlantic, we see basically a stable effort estimation for 2020, relative to 2019.

Then this is charter and headboat effort broken out, and there has been a lot of speculation, and some anecdotal information, that showed that there was a reduction in the for-hire sector and the amount of effort, and this is borne out pretty dramatically in the New England region, but we also see it in the Gulf of Mexico as well, and this is mostly attributed to the earlier waves. There was a pickup in general charter efforts later in the year, and so the reductions in the Gulf are not as pronounced as we see in the Mid-Atlantic or in the New England region. As far as the South Atlantic is concerned, the estimates for charter and headboat effort were about the same.

This is an example of effort estimates and basically showing the effort estimate with imputation, and then there's a second graph for the New England and Mid-Atlantic regions, and that red bar that's in those graphs refers to imputation that excludes what we call zeroes, and those are records for which we don't have a -- For which we have an FES record of effort, but we don't have APAIS information.

You will see that bar is missing from the Gulf and the South Atlantic, which reflects the fact that the sampling in the Gulf and the South Atlantic was subject to less data gaps, and, for each of the waves for which we had FES data for a given estimation domain, we also had APAIS information, and so that's a testimony to the ability of the samplers to continue to conduct sampling throughout each wave and collect data.

What I wanted to show you here is that, if you compare, with imputation, which is the blue bar, versus without imputation, you will see that there is very little difference between the two bars, and so the overall impact of imputation on the effort estimate for 2020 is fairly minimal at this level, and so we're talking about an annual level within the region.

Obviously, when you drill down to estimation domains that have greater resolution at the state level or area fished or by species for catch, that pattern will change, and you will expect more variation, but, overall, I think it's a good sign that the imputation had very little overall effect on the amount of effort that was estimated.

I did provide an appendix for a presentation that I have later on today that provides a couple of different metrics that we are looking at right now and we plan to provide with the catch estimates when we publish them within the next few days, and those metrics really reflect the amount of imputation, or imputed data, included in the estimate and then the relative change in the estimate, based on the inclusion of that data.

Those are two metrics that we'll be providing with the data to try and help managers and data users interpret the data, because, in some cases, there, obviously, would be a larger effect, due to imputation, than in others.

Our next steps, basically, are to finish up the estimate review, and I will say that the internal review team, which is made up of the Science Centers, the Regional Offices, and the Office of Science and Technology, and also the Office of Sustainable Fisheries, has finished their review of the estimates. We did get a couple of get-backs that we are looking into right now, but nothing that we would consider major red flags, and so we expect that those are not going to hold up the availability of the data in the next week or so.

As far as that is concerned, the estimate release -- As I said, we were targeting a mid-April release date, and that's our normal schedule. There are a few little complicating factors in this year's release, in that there is a communications rollout, and this is largely because of the interest at the legislative level, and elsewhere, in the release of the data, and so we are continuing communications with the regions, and we don't anticipate any major delays, at this point. We have a briefing with our leadership on the 15th, and we're hoping that, shortly thereafter, the estimates will be released, and I think that's the last slide, Ryan.

MR. RINDONE: Thank you, Dr. Cody.

CHAIRMAN GUYAS: All right. Thanks, Dr. Cody. I am going to give folks a few minutes to put their hands up,, but I have a question in the meantime. Can we go to one of the block graphs, and let's say Slide 4, those intercepts? Richard, I've got a

question.

I guess, in a normal year, if I was shown a graph like this, I would expect to see some intercepts certainly below the mean, and I would expect to see some of these blocks like above the mean, right?

DR. CODY: Yes.

CHAIRMAN GUYAS: Are there any above the mean? Is that included in this green block? I'm just trying to understand why everything is a reduction here.

DR. CODY: Well, yes, they're included in the green. Anything above 75 percent would be included in the green, and so, technically, if it's over one, or over the average, it would be in there.

CHAIRMAN GUYAS: Yes, and so did that happen? I'm just trying to understand, because, even before COVID, that March/April block, it looks like everything is a reduction than there had been with the average three years.

DR. CODY: Well, I would say that the average is one thing, and, like you said, you would expect to see some below and some above for a given week within a month or a wave, but I would say, on average, most of the assignments were completed to varying degrees. The ability of the samplers to conduct sampling is sometimes impacted, but, in general, the samples that we issued, or the assignments that we issued, were conducted by the states, and particularly in the Gulf.

I would say, in some other regions, that wasn't necessarily the case, and we had stoppages and starts, and, depending on the region the sampler was in, there were different controls in place that affected the efficacy of the sampling, and that occurred, to an extent, in Florida also, and southeast Florida, I think, had some restrictions in place, in Palm Beach, and maybe Miami-Dade Counties as well, at some point during the year that were different from the rest of the state. I don't know if that answers your question or if I just started it and danced around it, but --

CHAIRMAN GUYAS: I think it does, but I'm still kind of wondering if it would be more illustrative of how things were affected to have I guess a greater-than-one block or something in here too, because let's say -- Right now, I can't tell, from this graph, after COVID, if sampling really -- I guess, after

that gray block, if sampling really was different than before COVID or it wasn't. I can tell that it was less than, or I guess greater than, 75 percent, where there is green blocks, but I can't tell if there is -- If we go back to having some blocks above the average or if everything was below average. Do you see what I'm saying?

DR. CODY: Yes, and I would say probably -- I mean, there are plenty of blocks that are above average, but our main purpose for producing this graph is just to show the extent of the gaps, and so the ones that we were really concerned with are the zeroes, or the gray boxes.

CHAIRMAN GUYAS: Okay. Gotcha.

DR. CODY: I think we can produce a graph like that, if you're interested.

CHAIRMAN GUYAS: I would be.

DR. CODY: We can do that.

CHAIRMAN GUYAS: We have gray blocks, which are zeroes, and then we have just white, and what's the difference between those?

DR. CODY: White is just an absence of sampling, and so, in some modes, there is very little samples collected, and so they wouldn't be sampled in certain time periods, and so, over the past three years, for instance, the average would have been missing, and so there would be nothing in the block.

CHAIRMAN GUYAS: Okay. Let me go to Leann next. I see her hand is up.

MS. BOSARGE: Thanks, Madam Chair. Dr. Cody, I have only praise today. Won't you be so excited? I really like the approach that you used, and it was simple, where you pulled from the past couple of years, 2018 and 2019, to try and fill in some of the gaps using some averages to smooth, and I like the idea of maybe looking at 2020 as well using that kind of shouldering approach that you talked about.

I just wanted to say thanks for keeping it kind of simple, and I'm glad that you tried out the statistical models, but I do like the fact that we tried not to stray too far from how we normally process this type of data, and so thanks. I can kind of garner a little bit of information from those effort graphs, even though we don't have the actual landings numbers, and I can

tell that effort was up, and so, if I know what species people usually target, then that gives me a little bit of an idea of maybe what I'm looking at for landings, a ballpark anyway, and so thank you. I appreciate it, sir.

DR. CODY: Sure. Thank you, Leann.

CHAIRMAN GUYAS: All right. Mr. Dyskow.

MR. PHIL DYSKOW: Thank you, Madam Chair. I have a two-part question for Richard. The first part is, during the period of gaps that we see on these data tallies, did the states select their data in their normal way? Was there data available from the states during these timeframes?

DR. CODY: Well, the states do the collection of the APAIS data as well, and so, for Alabama, Florida, and Mississippi, they're involved in those data collections, and, as far as I know, and you would have to ask the states themselves, in terms of their state surveys, but there were some similar disruptions there, but recall that, for at least Alabama and Mississippi, their data collection would be more focused during red snapper season, which is after April and most of May.

MR. DYSKOW: Thank you. That's a good answer, and my question is specifically to red snapper. It looks like once -- This is just a layman's observation of this process, but it appears that, once you get the data, you do the right things to analyze that data to give it meaningful output, but the real concern I have is with the quality of the information that you start with, because of the way MRIP data is collected in the field.

Would it not make more sense, particularly with something as contentious as red snapper, to embrace the state data collection methodology, because they put a lot more effort into this, and they have a lot more sampling content that would be meaningful to prepare all of this analysis that you do. In other words, it's the old garbage-in-and-garbage-out thing. The better the data we start with, the more important and meaningful these analyses are going to be, and so my question is why haven't we embraced the state data collection efforts more completely in this process? Thank you.

DR. CODY: Well, I will try to address that. There are a couple of things to keep in mind here. You're talking about very, very different surveys that do essentially different things at different levels of resolution. For instance, the state surveys in Alabama and Mississippi focus on, for now, red snapper, which

is one species. MRIP is a general survey, and it focuses on all species, and it covers outside the level of the state, and so within regions and outside of regions, as well as beyond regions, and so there are very different methods being used here to collect the data.

I will point out that our calibration process that we have in place for the MRIP estimates, the FES and the APAIS, was reviewed independently by a combination of the CIE and the council SSCs, with members of the SSCs from the Gulf and South Atlantic involved, and those methods were endorsed by both panels.

Then, also, you have to keep in mind that MRIP has been reviewed over and over, and, in particular, the 2017 National Academy's review described it as state-of-the-art, when it comes to the methods that are being used, and so I can't agree that it's garbage-in-and-garbage-out. The methodology that we use is standard survey methodology, and it has its limitations, obviously. That's why we have in place in the Gulf specialized surveys that can get at higher-resolution red snapper catch estimates.

That said, I think we have worked very closely with the states to certify their surveys and to have them reviewed and to get them implemented and provide statistical support, as well as funding support as well, in some cases, for the surveys, and so I can't say that we haven't embraced the process, and I would say that we have worked very closely to try and ensure that what we have, as implemented, is the best that we can do.

There's a lot that we don't know about the differences between the different surveys. For instance, we know that the Gulf surveys provide more precise estimates, in terms of red snapper, but we don't know much about the accuracy of the estimates. We haven't had the chance to compare the two surveys and look at drivers for differences between those surveys, and that would give us a better understanding of where those differences are, given that the methodologies are very different and that we're trying to accomplish different things, and so hopefully that answers your question.

MR. DYSKOW: Well, it does, and I thank you very much. That was a very concise answer. If Madam Chair would allow me one follow-up question, and then I'll shut up.

CHAIRMAN GUYAS: Go ahead.

MR. DYSKOW: The biggest thing left on the table that's a concern is, as an in-season management tool, MRIP doesn't really work very well, whereas the state data, being more real time, does. For example, if we're concerned, and of course we are, with overfishing, we need this in-season tool to be more robust and more useful, so that we can see, in closer to real time, what is actually happening.

DR. CODY: If I can respond to that, there is a National Academy review right now of MRIP surveys with respect to its compatibility with in-season management, and so I think that report is due out sometime in July, and so we should have more information there, with respect to that as well, but I do agree that the MRIP survey is designed to produce wave-level estimates.

There is a careful review process to make sure those estimates are as accurate as they can be and that they've been -- That they follow quality control measures, and that's different than in-season management, which you're monitoring constantly a catch level.

MR. DYSKOW: Thank you.

CHAIRMAN GUYAS: All right. Dale.

MR. DALE DIAZ: Thank you, Madam Chair. Dr. Cody, I just want to follow-up on something that we talked about several meetings ago, and one thing you just said made me think about it, and you said that you all haven't had time, and I'm paraphrasing here, but to look at drivers of differences in the state surveys, and, in one of the meetings, it was noted that there is some issues that need to be looked at in small states. About two or three meetings ago, I had asked you a question about that, and has anything been done to start the process of looking at issues in small states?

DR. CODY: I think what you're referring to, Dale, is a sample size issue, perhaps, in smaller states, and you can expect that, where you have a low number of sites, that you're limited by sampling constraints at those sites and that you can't sample twice at the same time at a certain site, and so you're limited in the amount of samples that you can actually affect.

We have done some work, internally, on small sample sizes, but we haven't worked with the states yet to look at that, and the idea of this Gulf transition team sub-group was that we would sort of hash out those types of issues in a collaborative way,

with the states and NOAA being present at the table, and so we're hoping that, after we get through the next few weeks and begin the process for the 2021 season, that we get the transition team moving again and looking at those types of issues.

MR. DIAZ: Thank you, Dr. Cody.

CHAIRMAN GUYAS: All right. I do not see any other hands right now, at least that I can tell, and so thank you, Dr. Cody, for the presentation, and I think we're going to move into our next item, and so that is Item V, our Review of Reef Fish Landings. We've got a couple of different presentations there.

REVIEW OF REEF FISH LANDINGS AND PRESENTATION

MR. PETER HOOD: I am going to be going over commercial landings for reef fish. I will do this sort of standard series of slides, and there's actually two presentations, and one is just going to be commercial landings for species that aren't under an IFQ, and then the next one will be those that are in the IFQ.

Right now, we have gray triggerfish up on the board, and just a couple of things. All the slides that you will see, the 2020 and 2021 landings are preliminary, and so those could change, and then, also, with regard to the 2021 landings, because they are preliminary, as often happens, the actual landings will, over time for a given month, increase, as more dealers report their landings, and there's usually a little bit of a lag there.

In this first slide, red is the 2018 to 2020 average, and blue is what was landed in 2020, and the black is 2021, and you can see that, for gray triggerfish, 2021 seems to be lagging a little bit, but that also just could be that all the landings haven't been reported yet.

This is greater amberjack, and, again, 2021 seems to be lagging from 2020 and from the average. You will note there is a flat period, and it shows it starts in February and goes through May, but, basically, that's the March through May closure, and then landings seem to increase. I would also point out that, even though the 2021 ACL is 484,000 pounds, roughly, in 2018 and 2019, the ACL was reduced, and so that's why the landings don't quite rise to the level of the 2021 ACL. Additionally, in 2018, we had an overage, and so, in 2019, the ACL was reduced to account for that.

This is gray snapper commercial landings, and you can see that,

for 2021 landings, they are -- Generally, things start out kind of slow, and the landings in 2021 are similar to what was seen in previous years. Gray snapper has not received its ACL -- Well, that's a stock ACL, and so we don't have recreational landings in there, but you can see that 2020 was somewhat close to the average, and then 2021 is close to 2020.

We have mutton snapper, and I think this is the last slide for this presentation, but, again, you can see that the 2020 landings were a little bit lower than the average, and, in 2021, it was a little bit slower than what we've seen in other years, but we'll wait and see if that may just be some underreporting.

Then we'll go to Tab B, Number 5(c). This is for our IFQ species, and we're starting out with red snapper. The colors are a little bit different here, or I take that back. They're the same, and we have -- Anyway, you can see that at least -- I guess, with the IFQ, the landings that are presented for 2021 -- I mean, that's pretty close to what's there, but it's just because of the way that landings are reported through the IFQ program, and so we don't have that lag that we see in the commercial landings for some of the other species that we looked at. 2021 seems to be starting out along a fairly typical pattern that we saw both in 2020 and then for the 2018 to 2020 average.

This is gag commercial landings, and gag has not been hitting their ACL. Again, we can see that, in 2021, at least the way the year -- As the year has been starting out, it seems to be fairly close to the average, and, again, 2020 was close to the average too, and so that's gag.

Here we have red grouper, and, again, 2021 seems to be a little bit ahead of previous years, but it's fairly close, and then you can see the 2020, again, was fairly close to what the average had been, and so I think that's the last slide, and, if there are any questions, I would be happy to answer those.

CHAIRMAN GUYAS: All right. Thanks, Peter. Let me give folks a second to raise their hands. All right. I am not seeing any hands at this time, and so I think we can move on from this, too. As soon as I say that, someone's hand is going to shoot up, but thank you, Peter, for going through all these landings with us at every meeting, and we really do appreciate these graphs.

MR. HOOD: My pleasure.

CHAIRMAN GUYAS: All right. Let's move on then to our next series of presentations, and I think we're on our next item, which is review of the Great Red Snapper Count project. Ryan, do you want to introduce that before we invite Dr. Lorenzen to start his presentation?

REVIEW OF THE GREAT RED SNAPPER COUNT PROJECT

MR. RINDONE: Sure. We can do that. Dr. Lorenzen is going to present a summary of the peer review of the Great Red Snapper Count that was done between the non-principal investigators, members of the SSC, and three independent consultants, and Dr. Lorenzen will go over the terms of reference and the main parts of the Great Red Snapper Count and some of the key findings of the review.

You guys should ask questions and make any recommendations, as appropriate, and just bear in mind the relationship between Agenda Items VI and VII, as you're receiving all the presentations that are starting now and going to follow, and so there is linkages, obviously, between all of those.

DR. KAI LORENZEN: Thank you. I am presenting the review of the Great Red Snapper Count by the Scientific and Statistical Committee. This is just a quick reminder of what we're talking about, and I think most people are very aware of that, but I just wanted to provide a little bit of context. It's a really large project of unprecedented scale to derive an absolute abundance estimate and various other pieces of information on the Gulf red snapper stock.

The project used a fairly complex sampling design, sampling different habitats in the Gulf, using different advanced methodologies, and then, basically, it combines information from all these samples to derive absolute abundance estimates.

This is the widely-known and published sort of big-picture outcome of the Great Red Snapper Count, and so there was an overall estimate produced of about 110 million red snapper in the Gulf, and this estimate has been around since about October of last year.

I want to provide a little context here, before we get into the details, and sort of drawing back to the summary that former SSC Chair Joe Powers gave at the end of the SSC meeting, and so we were provided with those overall figures in October, and NOAA Fisheries then committed to working with the SSC to try and incorporate this information into catch advice for this year,

and we received our first presentation, an overview presentation, of the Great Red Snapper Count during the January SSC meeting.

The SSC then requested an independent review of this information, in light of the complexity of the study and the fact that we knew we were going to be asked to provide -- To basically consider providing catch advice using this information.

The terms of reference for this review were developed by the council and NOAA Fisheries, and not the SSC, and the process that we went through for the review was modeled on the SSC process, and so we had SSC members and three independent experts who were asked to take a more detailed look at the material and report, prior to the review meeting, and also be there at the review meeting.

We received the project, draft project, report in early March for the Great Red Snapper Count, and then a lot of the really detailed information we received during the actual review process, and the result of that is that the output of this comes in several parts, and so we have the independent consultant reports, and we have a report on the SSC meeting, and then we have motions.

In this process, SSC members who were co-PIs of the Great Red Snapper Count were asked to abstain from voting on motions, but they participated in the discussion, and what I am doing now is I am giving you a picture overview of everything that was deliberated in this meeting, but I will be drawing in particular on the independent experts' comments, because we as an SSC provided a consensus to the terms of reference, because there simply wasn't the time to do that, and so I will be drawing mostly on the independent consultants' reports, which have addressed specifically the terms of reference as they were written.

This is a summary of the terms of reference. The main objective from the review was to determine whether the absolute abundance estimate and its variance are reliable and consistent with input data and biological characteristics, and the review specifically was not meant to address the tagging components of the Great Red Snapper Count.

I want you to note that it's really about the potential incorporation of the Red Snapper Count into catch advice at this stage, and, specifically, the absolute abundance estimate, and

so we were not to do a big review of the specific science or what else has been discovered, but it was very, very specific to the questions that we knew that we would be asked in terms of incorporation into management.

There were three items in the TORs, and that is study design and sampling approaches, statistics and data analysis, and the results. I will go through those points, just summarizing the main points that the independent consultants made and some other considerations that came up during the meeting.

First of all, the review team, and that's the SSC members and the independent experts, want to acknowledge and compliment the Great Red Snapper Count team for an impressive implementation of this really large-scale study, and, in particular, acknowledge the scale and complexity of this study, the use of advanced sampling technologies, extensive collaboration with fishermen, a wealth of new information beyond the absolute abundance estimate, and that is something that we really did not focus on in our review, was the focus beyond the absolute abundance estimate, and there was impressive educational outreach.

We are going through the terms of reference now, and so the letters here refer to the independent consultants' reports, and so "MC" is Mary Christman, "DE" is Dave Eggleston, and "SC" is Steve Cadrin.

The main comments here were that, overall, the design covered a large area of the Gulf of Mexico appropriately. Implementation sometimes differed from the design, and the reasons and the implications for possible bias and variance are not always clear. The use of different technologies and different strata was unavoidable, for instance because of the visibility, and one could not use camera systems throughout the Gulf, but camera systems were used in the less-turbid parts, and then mostly hydroacoustic methods were used in the parts.

That is unavoidable, but, also, the intercalibration studies affects intercomparisons and combination of data from different strata, and so, even though the data may be consistent, or would be consistent, within strata, one cannot necessarily compare directly between estimates derived say from camera systems in the eastern Gulf with data derived from hydroacoustic methods in the western Gulf.

Also, questions were then asked by the statisticians about the degree to which those estimates that are not directly intercomparable should be combined into an overall -- Limited

intercomparisons, mostly off Florida, between hydroacoustic and optical survey methods indicate that the true observation error of the study is likely much larger than the 11 percent CV derived from the stratified estimates.

That's really based on looking at comparing the results that were produced by these two methods, and, really, if those estimates are made with great precision, you would expect those estimates to correlate fairly well, and that was sort of borderline the case. It was also noted that lack of data collection in some strata, in particular off Louisiana, and, consequently, to infer mean densities from other places would affect the variance, and possibly the mean, of those estimates.

The focus then moved on to statistics and data analysis, and the consultants said that, overall, the two independent analyses were partially correct, with some issues arising from non-random, or cluster, sampling and lack of clarity about post-stratification decisions, and I should add here that those were two independent analyses produced on the same dataset.

Estimated variances were likely low, due to additional sources of variability not currently included. Some of these can be estimated and included now, and others can't, and so the overall estimate of uncertainty will probably always be somewhat lower than what the true uncertainty is. There were some questions about the effect of imputations for unsampled strata, and this would be difficult to judge.

Arithmetic means are unbiased estimators of density, but observed distributions of observation suggest that other estimators may have been better suited to undertake those estimations.

Results, and this is on the overall results, results, if corrected for noted statistical issues, can be useful, at least in a regional context, and regional context here means, for example, the western region or the eastern region or smaller sub-regions, so that, basically, the problem of intercomparison and combination of data collected with different methods doesn't occur, and so that's where the regional comes in here.

It's not appropriate to combine the eastern and western Gulf into a single value of absolute abundance, due to the differences in technology and lack of calibration, and the eastern Gulf estimates, with a more credible variance, can be included as abundance estimates in an assessment, and western Gulf estimates could be included as a lower-bound constraint.

Confidence in abundance estimates for the uncharacterized bottom is lower than for abundance in the other habitats, due to the relatively-small sample size in the uncharacterized bottom, and that's significant, because that's where a very large part of that 110 million red snapper, or about seventy million red snapper, have been estimated for this uncharacterized bottom, but that estimate is extremely uncertain.

Assumptions appear appropriate, and not likely to introduce bias, except in variances, and stock-wide estimates may be an underestimate, but that wasn't entirely clear, and so there were some different opinions on that.

Putting all this information together, and conscious of the fact that we were being asked to consider taking this forward into management advice, we worked on a motion to essentially characterize, in one motion, all of what I just described, and here we are.

The review team (external consultants and SSC) considers that the Great Red Snapper Count provides a representative estimate of abundance for the eastern Gulf and --

MR. RINDONE: Kai, can I interrupt you? You broke up there for a second. Can you start back about fifteen seconds in your train of thought? Right when you were just starting this slide, and, if you could start over there, that would be great.

DR. LORENZEN: Okay. I'm just reading the motion at the moment, and so the review team (external consultants and SSC) considers that the Great Red Snapper Count provides a representative estimate of abundance for the eastern Gulf and a highly uncertain estimate for the western Gulf. However, the review team also considers that the true uncertainty in both estimates is substantially larger than implied by the 11 percent CV stated in the report and that the estimate for uncharacterized bottom is particularly uncertain.

As you can see, that motion carried with twenty-one to one and five abstentions, and the five abstentions here were the GRSC co-PIs who were asked to abstain.

I want to provide a little bit of a perspective on this, and that is that, like the Great Red Snapper Count, our stock assessments are uncertain, some more so than others, and they often underestimate the true uncertainty, and so the key points here is that this is not unusual, and it's also not something

that bars us from using results like this in analyses, and most of our assessments seem to think that uncertainty is less than it really is.

The only way to enter into the further use of that is that we add additional buffers to basically account for uncertainty that we know is there, but hasn't been really quantified in the assessment.

Secondly, it's very important to consider that both the stock assessment, in this case SEDAR 52, the related assessment for Gulf red snapper, and the GRSC estimate of abundance are estimates, and I say that because it's mainly the title of the GRSC, or how it's sometimes being presented, it makes people think that it's essentially a census, that people went out and counted 110 million red snapper in the Gulf, and that's not true.

People went out and took samples, and then they applied statistical methods to expand from samples to the totals, and so it's an estimate, just very much in the same way, but derived in a different way from the estimates that we get from stock assessments, and integrating data from both should help to reduce uncertainty and possible bias, improve management advice, and it will help identify new management options, I am quite sure.

In addition to the absolute abundance estimate that was the focus of our review, the Great Red Snapper Count provides exciting new information on many aspects of red snapper ecology and fisheries, and that concludes my presentation. Thank you.

CHAIRMAN GUYAS: All right. Thanks, Dr. Lorenzen. At this point, I would welcome any questions for Dr. Lorenzen. Greg.

DR. LORENZEN: I am going to log off just for one second, to try and improve my internet reception.

CHAIRMAN GUYAS: Okay. So just give Kai a minute, and we'll wait until he pops back on the screen here. In the meantime, we can build the queue.

DR. LORENZEN: Okay. I'm back.

CHAIRMAN GUYAS: All right, and so Kai is back. Go ahead, Greg.

DR. GREG STUNZ: My question wasn't -- It's a point, and then I actually have a couple of questions for Kai. I mean, obviously,

this was a high-profile project on an iconic species that we live and breathe in this council, and there was a lot of public interest. Normally, this would have taken place in a SEDAR data workshop with very limited attendance, and there was pretty much 140 people on this call at any one time.

To clarify, this was mainly to deal with the pressing management that we need to use some of these fish for this interim assessment that we're talking about ahead of a formal stock assessment that will happen a year down the line.

Kai pointed out that -- As he mentioned, none of our assessments that we do are perfect, and they generally don't capture that uncertainty, and variance especially, and so I wanted to make that clear, that there's not something special, necessarily, against this study, and that that's normal. In fact, in our normal assessments, like snapper or shrimp or you name it, we cap the variance in those assessments. We control for that. Otherwise, the models wouldn't converge or give us meaningful output, and so that's important.

The other key thing with this review process -- You know, normally, this is exactly how science works, but it's an anonymous, written exchange that occurs, but the whole value of this is that that's how we improve the science. You have these expert reviewers that tell you things that you may not have realized, which is exactly the case that happened here, that we can improve upon and eventually produce a final product, and that's really the gold standard peer review process of science.

Our team was generally happy with that, and, in fact, there were some very interesting things that captured more of the uncertainty that the team brought up that we can easily do, and some we can't do, because we don't have that information, like for most studies, but, anyway, we were happy with that external review team, but not such much with some of the review of the SSC reviewers, and I will explain a little more my basis for that in a second, because I have a question for Dr. Lorenzen.

One of the key points that I guess wasn't made, even in this presentation today, that several of the reviewers, if not all three of them, didn't have any problem with the point estimate, the actual number, and it was the uncertainty, or the bias, but it was Dr. Lorenzen's position that it might have been unclear, and it was very clear, and it's very written in the main conclusions from at least two of the reviewers that I am looking at here, that it's biased towards an underestimate.

What was ignored by the SSC was that the reviewers are recommending that the western Gulf of Mexico number be used as a lower bound, and somehow that keeps not making it to the surface, and I want to make sure that it's very clear that this estimate -- There were some instances that might increase the abundance estimate, in terms of the uncertainty, but, by far, overall, we were very, very conservative towards an underestimate. Anyway -- And that that Gulf of Mexico should be a lower bound, and I want to make sure that I make that point.

My last question is really -- I don't know if it's to you, Madam Chairwoman, or Madam Chair, or Dr. Frazer, but I thought this presentation was going to be given by Dr. Powers, but it's my understanding that he has resigned, and so my question is what is the nature of that resignation, or have you shared that letter with the council? At least I didn't see it.

CHAIRMAN GUYAS: I am going to punt that.

DR. LORENZEN: Dr. Powers did not provide a written reason for his resignation.

CHAIRMAN GUYAS: Hang on. I think Carrie wants to jump in on this one, Dr. Lorenzen. Go ahead, Carrie.

EXECUTIVE DIRECTOR CARRIE SIMMONS: Thank you, Madam Chair. Dr. Frazer stepped away for just a moment, and so I will fill in. That is correct that we did not receive an explanation of the resignation in writing, but just that he was resigning effective immediately. I did, after we had a chance to call him, send that information to the council, after we sent it to the SSC.

DR. STUNZ: To that point, Madam Chairwoman?

CHAIRMAN GUYAS: Sure.

DR. STUNZ: Because the reason that our team, and myself as a councilman, are concerned with that is, one, that that was a curious resignation, but, right out of the gate, the Chairman had pointed out, and it's on the record, if you want to review the minutes, and he certainly guided, steered, this conversation for the SSC portion of this review that he had not read the report.

Well, that, obviously, is pretty concerning for a project of this magnitude, and there are many implications in this fishery, and so I had to go back myself to make sure that I heard that correct in the minutes, but it's clearly there, and so that is

kind of concerning, when you're making key decisions like that, but it was clear, at least to our team, that many are not understanding the report, and maybe that's because some have not fully read it.

DR. LORENZEN: Can I just comment briefly? Dr. Powers made a closing statement to the review that is available in the minutes, and that pretty much, I think, explains his concerns and essentially the reasons for his subsequent resignation, and so I would urge you to look at that statement, if you would like more explanation. Thank you.

CHAIRMAN GUYAS: All right. Greg, did you have other questions?

DR. STUNZ: Well, I will hold off for now.

CHAIRMAN GUYAS: Okay. Sounds good. I am going to recognize -- I think Carrie is already done. Kevin, you're up.

MR. KEVIN ANSON: Thank you, Madam Chair. Dr. Stunz brought up one or two of my questions, or comments, but I just wanted to reiterate what he said, that that was what I heard and gathered from the report, was this was a very conservative point estimate. Yes, there were questions about the variance and the confidence intervals and such of the data, and it was a multi-state, and multi-group by state, or groups within a state, using different gears and different sampling strategies, and so there are going to probably be some differences there, or something lacking.

Again, I just wanted to stress that it was a conservative point estimate, and just looking ahead, as we try to talk about some of these issues that we're dealing with, that the stock is probably in a little bit better condition than we think, and so I just wanted to make that point.

Just another thing about some of the makeup of the group and such is that one of the sampling groups dropped out, and I didn't hear much discussion as to why a group dropped out of the sampling and another state had to come in and pick up the sampling, or they tried to fill in holes in the data, and so, anyways, that's all. Thank you.

CHAIRMAN GUYAS: All right. Thanks, Kevin. I am going to move down the list here, and so next we have J.D.

MR. J.D. DUGAS: Thank you, ma'am. I have a couple of questions, and I'm not sure who to direct them to, but I am

wondering how many -- On the Great Red Snapper Count, how many sites were sampled versus the longline sampling sites, and I don't know if that's a question for Clay or Greg, and it's a two-part question. Thank you.

DR. STUNZ: Madam Chairwoman, when you're ready, I can answer that question for the snapper component, the Snapper Count component.

CHAIRMAN GUYAS: Sure. Go ahead, Greg.

DR. STUNZ: Well, I think, J.D., you're referring to the uncharacterized bottom, or what we're calling the open bottom, which really isn't open, that we have discussed, and there is things out there that hold red snapper. For that area, it represents about 100,000 square miles of the shelf of the Gulf of Mexico, and so it's a huge area, and don't get me wrong, and so, had we known there would be that many fish out there, we would have sampled a lot more in that area, but we didn't know that going in.

Even then, you could never -- Even for $12 million, or $120 million, you could not cover that vast of an area as much as I think anyone would like, or a pure statistician might prefer, and it's just not possible, but, within that area, from Key West all the way to Brownsville, Texas, we had 9,400, or something like that, roughly. It was roughly around 9,500 samples on that open bottom. Now, that's still a small percentage of it, but 9,000 samples is a heck of a lot of samples, given the nature and work that it takes to conduct research in that area.

CHAIRMAN GUYAS: Thanks, Greg. Clay, I don't know if you want to respond to the bottom longline question or come back to that once we get into that part of the discussion, and I will leave that up to you. If you have that handy, then go ahead and chime in. I see your hand is up. Clay, is it to that?

DR. CLAY PORCH: We make several hundred sets with the longline fishery, but keep in mind that you can't compare the sample size between the Great Red Snapper Count and the longline, because they're different types of gear that they're putting on the bottom, and it depends on how you characterize the video transects that they're making and whether you split them up in pieces or what have you, but it's different types of gear.

The key point is that the longline survey is a time series, and so we've been doing it for something like thirty years, and so you can see the time trends, and one of the things that the SSC

considered is that very thing, that it actually gets you time trends of abundance, and I think the status of the longline survey, as an index of red snapper abundance, really went way up in the estimation of the SSC, because of the Great Red Snapper Count.

Remember that the stock assessment that we did was based on catch information that, of course, comes from where the fishery operates, which is mostly on artificial reefs and high-relief natural relief. If you look at the estimates from the Great Red Snapper Count and those areas, they actually match up really well with the stock assessment.

The new thing was that we found out that most of the red snapper actually live on that uncharacterized bottom, and that's exactly where the longline survey goes, and so I think that the SSC felt that the longline survey gave a pretty good picture of the trends for the majority of the red snapper population, and so that's why they used it in terms of setting the ABC.

I guess the other thing that I would add to this, in support of the logic that the SSC used, is that they were concerned about what has happened to the red snapper population since the Great Red Snapper Count. Remember that the Great Red Snapper Count does not give you an idea of stock status. It gives you an idea of the absolute abundance, but, during the SSC, they did talk about the fact that we don't have a survey in 2020, because of COVID-19. We did -- We managed to get out there, but we didn't sample enough to give a valid index of abundance.

Then there was a fair amount of testimony from state scientists, and some of the independent scientists, that they see some concerns, especially in the eastern Gulf, in terms of trends of abundance, and so I think the SSC used a different logic to generate the OFL and the ABC, the OFL being based on the Great Red Snapper Count, but they were concerned about the uncertainty issues raised and some potentially concerning recent trends in abundance, plus the fact that we don't know what happened exactly in 2020, and so they elected to use the bottom longline survey to scale the previous ABC, and that's where they came up with the 15.4 million pounds. I think I characterized that accurately, but, Kai, you may want to weigh-in.

DR. LORENZEN: That is accurate. Obviously, we have another presentation and a whole other presentation on that coming up.

DR. PORCH: Okay.

CHAIRMAN GUYAS: Yes, and so we're divulging a little bit and getting a little bit ahead of ourselves, and so, for now, let's ask questions of the presentation in front of us for Kai, and then we're going to get into the interim analyses and catch recommendations in the next presentation that Kai provides us. J.D., do you have other questions on this presentation?

MR. DUGAS: No, ma'am. Thank you.

CHAIRMAN GUYAS: Okay. I'm going to move on down the list then. Troy Williamson.

MR. TROY WILLIAMSON: Thank you, Madam Chair. I am unclear as to a couple of responses. We heard a definite number from Greg, regarding the sampling size on the uncharacterized bottom, and I have two questions, I guess, and I don't know who to direct these two, and I didn't hear an accurate number for sampling sites for the bottom longline survey, similar to the Great Red Snapper Count, and, number two, the abundance, gross abundance, number for the Great Red Snapper Count was over 100 million, if I recall correctly, and I don't think we've had a number, similar number, that was produced by the bottom longline survey, and could someone provide that? That's all I have.

CHAIRMAN GUYAS: Thanks, Troy. I am going to maybe look to Clay for that.

DR. PORCH: I was going to say, if you want me to weigh-in now, I can. Again, the longline survey does not give an absolute abundance estimate. It gives trends in abundance over time. It's a relative index of abundance, and it's not designed to try and get an absolute abundance estimate.

That's where the Great Red Snapper Count is unique and what makes it a landmark type of study, in that it does attempt to estimate the total number of fish, but the longline survey is a time series, and, again, I can get back to you on the exact number of samples, but remember the number of samples are not comparable, because it's a different type of gear.

One is a longline survey, and you're laying the longline down on the bottom and catching fish and looking at catch rates. The Great Red Snapper Count relied heavily on towed video cameras, and so it's a completely different type of gear, and you cannot compare sample sizes.

CHAIRMAN GUYAS: Thanks, Clay. Andy.

MR. ANDY STRELCHECK: Thanks, Martha. Certainly I'll have some comments when we get to the catch analysis, but I did want to first thank Kai for presenting to us and the SSC's work on this. I know you had a long week, a few weeks ago, reviewing the Great Red Snapper Count, and, obviously, the catch advice.

Greg led earlier with some comments about the scientific process and really being pleased with, obviously, what came from the review, and certainly I think that also is kind of a part of kind of the decision-making that the SSC was basing their work on during that week, and one of the things that I wanted to ask you, Kai, is, specifically, kind of from a scientific process standpoint, we heard a lot about kind of the rushed nature of the Great Red Snapper Count review and how that's been funneled into management advice, and so I would be curious to kind of hear, from your perspective, how this could have been done better.

Then, more importantly, kind of how you see this playing out going forward, and I know you alluded to that some in your conclusions, but, from my sense, the SSC will take this up and look at Greg's analysis, the team's analysis, at some later date, and potentially can inform management advice going forward, in addition to potentially a research stock assessment, and so if you kind of respond to that, in terms of kind of the scientific process and then next steps, as you see it from the SSC's view.

DR. LORENZEN: I guess that's a multipart question, and let me start with the scientific process. Overall, what we have done mirrors what we would normally do with this sort of information, and I want to say that also to the many members of the public that I know that are listening and who may not have watched up take apart a stock assessment before, but we do that on a very regular basis with similar rigor.

Usually, this process basically rolls out over a much longer period of time, and so we would have a data workshop that is just looking at data issues, and we would have an assessment workshop that is looking at the calculations and the estimations and so on, and then, usually, there would be a review workshop, where a different set of eyes looks at everything that has been done before, and a lot of these workshops actually are not a single occurrence, but they take place over several weeks or months, and panel members have questions, and they ask the investigators to make changes, and the investigators come back, and then we look at that again.

Sometimes we -- Well, usually, we end up getting something that we consider useful and take it forward into management advice. Sometimes it turns out that there's no way of really getting to something of the quality that we need, and we abandon those things, and so we have, over the last few years, abandoned several stock assessments, because it became clear that there was no way forward.

This is a normal process, and, indeed, I think what was different was, overall, the rash nature of it and the fact that a lot of the detailed information only really became available at the workshop, rather than a long time before then, as is usually the case, or, if it's not there, we would postpone that discussion until it's provided, and so the time scale -- I would also say that -- I would characterize it as pressure.

I think there was a lot of pressure on the SSC, and not only to undertake this in a very expedited fashion, but it was also clear that there were very strong expectations that this would result in a substantial increase in catch, and I would note, as one point of concern from my side, for example, the fact that the outreach contained about this number was made right the week before the SSC had a chance to actually review the information.

That's not how we usually do it, and we review all of this information and so on, and then, eventually, we get to the decision, and all of this -- By the way, this is a little different from the normal scientific peer-review process that Dr. Stunz alluded to, in that usually we have anonymous reviewers and so on, and our reviews, for management purposes, are extremely transparent, and so we have named people in the room, and we record all their comments and so on, and it's very transparent, but usually it happens over a much longer time period.

I think, in spite of all those issues, we have conducted a thorough review, and I think, if we had more time in the usual way, probably the end result, which are the catch level recommendations that we'll come to in the next section, might have been a little more coherent, I will discuss how we ended up where we ended up in that section.

Let me answer your other question, which was what's the way forward for that Great Red Snapper Count information, and it's already -- Other than saying, yes, we will look at that for the sort of interim advice at this stage, we have not passed any further judgment on it.

I know this information is already being considered for inclusion into SEDAR 74, the research track assessment for Gulf red snapper, and I think what we will see is, instead of those point estimates that were bantered around, we will see that this information will be integrated into the analysis at a much more detailed level, and so there will be -- The count information from different places and so on will be used in the assessment, to improve the assessment, and that's really what needs to happen, I think, is that integration, and I will expand on that in my next presentation.

It's that integration of the Great Red Snapper Count information with information that we already have about how the fishery behaves, and so I think that's what needs to happen, and that's what will happen, and I'm sure that it will greatly improve our understanding of red snapper population dynamics and the red snapper population dynamics and fisheries.

As I have the floor, I just wanted to comment on a couple of points that were brought up in questions, and one was about the fact that the committee said that the point estimates, at least for the eastern Gulf, were likely to be an unbiased point estimate, but that the variance would be much larger, and it's correct, of course, that that means that, yes, the point estimate stays the same, but the point estimate really is only the central tendency in that sea of uncertainties.

To say that, well, the point estimate remains the same, but they're saying the variance is a lot larger, it's sort of not the right sense, but it says that we actually are very uncertain about how many red snapper there are, and the point estimate is just the middle in that big band of uncertainty, and so, yes, the point estimate hasn't changed, but it does have implications when we say that the variance is actually a lot larger than it was originally reported.

The second part concerns the question of it being an overall underestimate, and this is interesting, and I think that accurately reflects, probably, the majority view on the SSC, although we haven't had a lot of time to discuss that, and, if you watched what we were doing, the eventual motion actually started by saying that it was likely an underestimate in the western Gulf, and that was changed by a friendly amendment, based on comments by -- I can't remember who it was who said that they weren't that sure that it really was an underestimate. So, in order to be able to move it forward, we changed it from likely an underestimate to particularly uncertain.

I would say that's accurate, and the reason is that there are many decisions that are made in the analyses of these data, and a lot of those were made in the spirit of being conservative, and that's absolutely correct.

There are other decisions that we haven't been able to really review, and those may be biasing the estimates upwards or downwards, and so some of the results, for example, from the change in the survey practice, from the survey design, and so, if you have a design and you follow it completely, then those questions don't arise, but, if you change it, then it really matters why you changed it and how you changed it, and even the little details matter, how you choose what to do.

Those questions is what a very strict design is trying to avoid, and then there are other decisions that we -- Say, if you remember the stratification, the probability of current stratification that is done in the survey, and that's based on a continuous output of a model that describes the probability of occurrence, but that is then chopped up into three categories of low, medium, and high abundance, and, quite likely, exactly how you chop that up will make a difference for the estimates, because it influences how samples are combined into strata.

That can be explored, and one of the consultants brought that up, but we haven't been able to see that information, for example, and so the bottom line there is that we did not feel comfortable to make a general statement that it was an underestimate, and so we opted for highly uncertain. Thank you.

CHAIRMAN GUYAS: Thanks, Dr. Lorenzen. We have got a number of hands up, and so, if you don't mind, since you've got the bottom line out there, I am going to move through the queue. I am going to try to work us towards our break at 11:15, and then we'll see where we are at that point. Kevin, your hand is up?

MR. ANSON: Thank you, Madam Chair. I wanted -- Even though I've already spoken regarding this topic, I want to thank the SSC, and I want to thank the independent reviewers for the work and the time that they put in, not only during the week of the SSC meeting, but also beforehand.

I mean, a 315-page report, thereabouts, was dated March 1, and so people had a month, basically, to go through it, and so I was impressed with the level of detail that the independent reviewers brought and a lot of the discussion that was had during the SSC meeting about a variety of issues, related not only to the sampling, but also to the concerns for variance.

It's good that Andy asked the question about how the SSC members -- What their frame of mind was as they deliberated and discussed the Great Red Snapper Count, and Dr. Lorenzen kind of affirmed that there was some pressure there, and it seemed like things -- That there needed to be some sort of result for management, and that there are lots of questions yet to be answered and clarified and to make people more comfortable with the results of the Great Red Snapper Count.

A couple of things that I think we ought to start thinking about, if that in fact is what the council needs or wants, is a more thorough analysis and give the SSC members more time, and we ought to think about that.

I took away one comment that one of the independent reviewers had, Dr. Eggleston, that he was impressed that red snapper abundance was basically 50 percent across the region, and I would be curious to know what the abundance is for other snapper species throughout the Atlantic Basin, because it's a comment that I have made, based on my little bit of knowledge, at least here in the northern Gulf of Mexico, is that snapper are just different.

They are different snapper than other snapper in this particular geographic location, located on what was once referred to as the fertile crescent, and we have lots of potential here in the waters here in the northern Gulf of Mexico, and I think red snapper are taking prime advantage of that.

Then, also, in this review, I think it would be important for that point estimate, in addition to other point estimates that could be derived with the federal data, to be compared to what the state data shows, and I think there's lots of information that, if you take one data stream and look at the results and compare it to the Great Red Snapper Count information, as you look at the different regions, you can then do the same analysis and compare those results using just the state data, and to see how that then compares to the population estimate off of each state and then look at trends in each of those data streams, as far as catch rates, as far as size composition and age composition and all of those things.

I think that would all be very valuable, but that takes time to do that, and then just to follow-up, and I know it's on our agenda item, but Dr. Porch has provided some comments to providing the council with some information about the bottom longline survey. If he could also then provide the number of

sets by year and region that the bottom longline survey was conducted, that would be very helpful. Thank you.

CHAIRMAN GUYAS: Thanks, Kevin, and I will note, just for the committee, since this keeps coming up, and, of course, we'll get to it later, but there are background reports along with Kai's presentation, and I believe a lot of the information that people are asking for, relative to the bottom longline survey, are contained in Table 2 of Tab B, Number 7(b). We will discuss that later, once we get to that agenda item, but just for those that maybe wanted to hunt and look for that information. I am just going to go to Greg.

DR. STUNZ: Thank you, Madam Chair. This will be the last comment that I make, but I want to make sure, because it was maybe not clear at our last council meeting, and this one as well, but to Dr. Lorenzen's comment.

With this Great Red Snapper Count, we're really on two tracks. Keep in mind we're not the Southeast Fisheries Science Center stock assessment team, and we're a group of independent scientists, and, while we're happy to facilitate council needs on this interim basis, in terms of meeting some real dire management needs that we're considering at this meeting this week, we're not necessarily responsible to the council like that.

We're responsible to our funding agency and the appropriations, and we're guided by those sponsors timelines, in terms of when we finish the report, when do we outreach to the public and that sort of thing, and so it's two independent tracks, and so I want to make sure that that's very clear.

It was interesting when Dr. Lorenzen brought up the pressure and expectation, and so this is kind of a tough comment, but it's something that I want to make, based on an email that's circulating starting late last evening, the SSC, that is our governing sort of independent advisory body to give us scientific advice to this council, but, in the email, Dr. Lorenzen, you put that -- This was in reference, obviously, to the Great Red Snapper Count, but we all know that there's an amberjack and a South Atlantic count that's very similar going on right now, but you had put that there's a need to proactively, meaning before the studies begin, to manage congressional, principal investigators, and managers expectations, and you agreed with the context of that.

I guess the reason I'm bringing that up is that's sort of

concerning, from a scientific body that is supposed to be an independent advisory to the council and not be influenced by pressures and expectations and that sort of thing, and so, but to proactively manage expectations ahead of the science is about as far from science as we get, in the sense that's kind of like saying, well, we're going to manage expectations that COVID vaccines don't work prior to the COVID vaccine studies being done, and that's just sort of out of place.

I guess I wanted to bring that up, because I think it's maybe a discussion, a broader discussion, that the council needs to have, in the sense that we need objective, independent advice on what's at-hand, but not management of expectations prior to studies that, in some cases, have not even started or are just in the very beginning phases.

CHAIRMAN GUYAS: All right. I am going to move down the list and go to John Sanchez.

MR. JOHN SANCHEZ: Thank you, Madam Chair. As a follow-up to those comments, I have always viewed the SSC as hallowed ground, a place where scientists can gather in an objective forum and review data and offer what turns out to end up being the best scientific information available.

That information is in fact the cornerstone of this management process, and it's a place -- It benefits the fish, which don't have a seat at the table, and I think the SSC should be allowed to conduct itself in an objective forum, and, yes, let's leave the politics out of it. The politics more appropriately belong in the council process, where we have appointed individuals. The scientists should be left alone to review their data, and the results are what they determine and what they are, with no pre-prescribed outcome.

I want to say that I have the -- After working with Dr. Powers for thirty years, I have the utmost respect for him, and I want to thank him for his leadership on the SSC and his contributions and his service. I thank you all very much.

CHAIRMAN GUYAS: All right. Thanks, John. Clay, you're up.

DR. PORCH: Thank you, and I think you actually already made one of my points, in that the total number of longline samples is in that report in Tab B, and I think it's Report Number 7, and it fluctuates, from year to year, between 250 and about 120. I don't think we have it by region, but we can get that for you, and it could be circulated.

The only other thing that I wanted to say was this -- Everybody really made a great effort to try and accommodate the results of the Great Red Snapper Count for the review and for the SSC deliberations, because it was on a very compressed time schedule, and we had an accelerated review.

The data, the final data, weren't available until sometime in March, and so the people who had to put together the interim analyses had to work rather quickly, and, fortunately, they had been communicating with the Great Red Snapper Count folks all along, and they had a system in place so that they could deliver those estimates in time for the SSC to review it, but just keep in mind that everything was on a very compressed time schedule, because people wanted to accommodate the council, so they could possibly use this for management advice this season. Thank you.

CHAIRMAN GUYAS: All right. Thanks, Clay. Next, I have Dr. Frazer.

DR. FRAZER: Thank you, Ms. Guyas. I want to apologize that I had to walk away earlier to take a phone call, but I wanted to take a minute to address a few of the comments that were raised when I walked away.

The first one has to do with Joe Powers' resignation, and so everybody is on the same page. Joe did provide an email to me indicating his intent to resign, and that email was forwarded, just recently, to the council, but, prior to that, notification of his resignation was distributed to the group.

When I received the email, I did call Dr. Powers and ask him to confirm that in fact that was his decision, and he confirmed that it was, and, at that point, we did provide, again, notice to the SSC regarding his decision.

With regard to the comments about his reading the report, I have actually had an opportunity to review the audio transcript, and, in fact, it clearly indicates that Joe said "having read the report", and so it's clear to me that he read the report, and I know, for a fact, that he spent a considerable amount of time on it, and so I just wanted to assuage any concerns that in fact he was ill prepared or did not read the report, and he's always been a respectful member of the SSC. In fact, he has nearly forty years of service, and certainly I want to thank him for his service.

The other thing I would like to ask people is this is clearly an

important issue that we're discussing here today, and one of the things that I have been extremely proud of, over the last several years, is the collegial manner and the way that we handle our business, and I would ask that, when questions are raised, we try to keep to answers to the point of the question, and I would ask that individuals try to be respectful of another moving forward, so we can move efficiently and professionally through this process. I will hand it back to you, Martha.

CHAIRMAN GUYAS: Great. Thanks, Tom. Next, I am going to go to Mr. Swindell.

MR. ED SWINDELL: Thank you, Madam Chair. I have a quick question, and I think it may have been answered before, but I just want to clarify it in my mind, and is there any significant differences that were discovered in the Great Red Snapper Count as to the size of the fish in the uncharacterized area versus the size of the fish for the red snapper in the artificial and natural reef areas, and was this considered by the SSC in their deliberations? Thank you.

CHAIRMAN GUYAS: All right. Part of that I feel like is a Greg question, and part of it is a Kai question, but Kai can probably answer both. Greg, do you want to speak to the Great Red Snapper Count?

DR. STUNZ: That would be fine if you want me to, Madam Chair. In fact, Clay could probably answer that most appropriately, in terms of how they were integrated into that interim analysis, but we provided the Science Center with some size data for those fish.

Generally, the fish on the uncharacterized bottom are in fact larger than fish from where the fishery occurs on artificial reefs and natural banks, although the main focus of the Snapper Count was not to do traditional age and growth studies, in the sense of generating that age composition, and our guidance was more towards counting the actual number of two-plus fish.

However, subsequently, obviously, that's a very important parameter to know, and we clearly recommend, in the report, especially since discovering so many fish over the uncharacterized bottom that we weren't necessarily expecting, that more studies go out there and collect those fish and better characterize that age structure, but that's sort of a research recommendation, where more information is needed.

CHAIRMAN GUYAS: All right. Thanks, Greg.

MR. SWINDELL: Madam Chair, may I respond?

CHAIRMAN GUYAS: Sure. Go ahead.

MR. SWINDELL: Greg, from the -- Since the SSC looked at an east-west kind of scenario here, with this Great Red Snapper Count being better for one or the other side, was the size of the fish generally bigger in the east or the west uncharacterized areas? Is there any just general estimation on that?

DR. STUNZ: Madam Chairman, to that point, if I may.

CHAIRMAN GUYAS: Yes.

DR. STUNZ: Yes, in general, the fish are bigger in the western Gulf, although our studies show, just for the sake of argument, that it was roughly evenly split in the eastern versus western. The size patterns were not that at all, in terms of the biomass may hold up, although our job was not to calculate changes in biomass, but I can tell you that, as you get out to Florida, where the fishery is recovering and they're moving into areas where they had traditionally been, but not for many decades, it's being colonized by a higher abundance of small fish.

In those regions, in the eastern Gulf, we had to adjust some of our numbers to account for that age that they recruit to age-two, and the size can be a little bit problematic, because there's a wide range that they can do that. That was very characteristic of the eastern Gulf, especially in Florida, where not so much in the western Gulf, where they typically were much larger fish.

CHAIRMAN GUYAS: Thanks, Greg. Anything else, Ed? All right. Let's move on to Ms. Bosarge.

MS. BOSARGE: Thank you, Madam Chair. I just wanted to take a step back for a second, and we're getting into a lot of the details, which is good, but I think maybe there's a larger perspective that was helpful, to me at least, as I listened to that meeting, and, before I get to that, I think I should say thank you to Greg and his team and to the SSC and to staff and all the reviewers, the independent reviewers.

That was quite an undertaking to put that meeting together, and I really thought, as I listened to it, and the information was presented, there was a scientific process that took place, and

everyone was very respectful and asking some tough questions, but respectful, and getting good answers, and so I appreciated that.

It was very similar to what happens when we review a Science Center, or federal, NMFS stock assessment, and the SSC -- Honestly, they put their stock assessment scientists through their paces. If I was one of those stock assessment scientists that worked at the Southeast Fisheries Science Center, I would probably go home and cry at night, but they have pretty thick skin, and they know that it's all in the name of good science, and so I appreciate that.

The analogy that I heard during the SSC meeting really helped me to take the Great Red Snapper Count and the multitude of stock assessments that we've had on red snapper and the actual fishery itself and what I see and what I hear from the fishermen and put it all together and understand it as one picture, and that was this analogy to a car, of all things.

The analogy went that we have this population of red snapper, and, over the years, we have kind of -- If it was a car, we see how it handles, and we've been managing it and watching it scientifically for a while, and we can tell kind of how it corners and how it drives, how it does this and does that, and maybe we might say that sometimes it seems a little sluggish, right? If it was a car, it's a little sluggish.

Then now we have this realization, after we've driven this -- Let's call it rental car, and we've driven this rental car for a couple of days, and we've gotten used to how it handles, and we go, you know, let me look under the hood of this thing, and so you pop the hood, and you say, man, that's a big engine. Holy cow, look at that thing.

Then you think to yourself, but this thing is sluggish. Well, that big engine that you just saw kind of helps you understand how that car is handling. It's sluggish, even though it has this big engine. Well, that's because, oh, the car must be really heavy. Well, it is. God, it's a big dually truck that you've been driving, right, and so it really helped me to understand how to put all these pieces together.

We have this population of red snapper that we've been fishing on for many, many, many years. I mean, over a hundred years, right, and we have fished that population down during those times, right, and we have seen how long it takes to fish it down, and how does it bounce back, how does it recover, what

takes it down again, and I felt like this Great Red Snapper Count was really finally that look under the hood, and it said, wow, there is this big population of red snapper out there, and it helped me understand why that population of snapper, why that car, has been handling the way it's been handling all these years.

I have to take into account that I also can see past history of what it takes to fish it down, and so that -- I thought that really brought everything together, and so I just thought I would do my best to give the rest of the people in our meeting that viewpoint, and hopefully I summarized it well, but, anyway, there it is, and hopefully that helps others as it did me. Thanks.

CHAIRMAN GUYAS: Thanks, Leann. I remember that analogy from the meeting, too. I see Robin's hand, and then we're going to take a break, because we're coming up to our break, and so, Robin, you've got the last word here.

MR. ROBIN RIECHERS: Thank you, Madam Chair. Certainly, like Leann just did, I want to thank all the participants of the workshop, from Greg's team and all of those folks to the SSC, the reviewers, the independent reviewers, and the people who did a lot of work getting to that point, all very important stuff, and we certainly appreciate that effort.

I think it was Dr. Porch, and it was either Kai or Dr. Porch, and I may not be recalling, but I think it was Dr. Porch who made the statement about some reviewers, and I certainly understand the discussions regarding the uncertainty and those discussions, and maybe somewhat the lack of non-comparability between bottom longline and the other studies.

I think we can maybe look at comparison of at least bottom that was touched in those different transects, and so there may be some ability to at least make some comparisons, when we think about the uncertainty surrounding those two types of approaches, but I guess, more importantly, I heard some discussions about that some of the reviewers and the SSC members having concerns about what has happened since the time of the Great Red Snapper Count.

I am assuming then that that really speaks to a 2020 timeframe, and the beginning of this timeframe, and I guess I'm trying to dig in, and I'm not asking for people to read other people's minds here, and it may have been just statements or some concerns, but I'm kind of wondering whether there was some data,

or whether it was some of the data that fed into the assessment, or was it our bottom longline data, or what data would have led people to have those concerns, and if there's anything there that we should also be taking a look at.

CHAIRMAN GUYAS: Thanks, Robin. I think we'll actually get to that in our next set of agenda items, when we go through the catch analyses.

MR. RIECHERS: Okay.

CHAIRMAN GUYAS: Kai, I see your hand is up. Was it to a point that somebody made?

DR. LORENZEN: Yes, and I wanted to respond to something that Dr. Stunz said a little while ago that we passed through an email that's going around, and I don't know which email he means, but I suspect he's referring to a comment that I made to the steering committee of not the Great Red Snapper, but the Great Amberjack Research Project, and it was about integrating some of those projects that are happening somewhat, as Dr. Stunz pointed out, outside the usual way of doing -- You know, collecting fisheries management information and analyzing it, and that there should be, earlier on in those projects, that integration should be given consideration.

I think, in particular, I want to point out that the comment I made about managing expectations was meant in the exact opposite way of Dr. Stunz stated. It's managing expectations as in not putting out expectation that research projects will lead to particular changes, changes in particular directions, and so it's the exact opposite of spreading misinformation, and I just wanted to make that very clear, that it's really about being careful not to give people any particular expectations of what the results of a study might be or how they would be used. Thank you.

CHAIRMAN GUYAS: All right. 10-4. Thanks, Kai. All right. Let's take that break. We're about on time at this point, and we'll come back at 11:30, and, at that point, we'll get into the catch analyses, and we'll pass it back to Kai for his next presentation. Thanks, everybody.

MR. RINDONE: Martha, you were breaking up a little bit for us there, and we're just trying to make sure that -- We're trying to identify where the audio gap is, if it's between us or you. From what I think I heard you say, you were saying it was time to take a break?

CHAIRMAN GUYAS: Yes, let's take a break until 11:30.

MR. RINDONE: I think Tom wants to jump in real quick, before we do that.

DR. FRAZER: Thank you, Martha. We are in fact going to take a break, and we will reconvene at 11:30, and I just want to remind folks that, when they come back, we have a fairly lengthy and aggressive agenda, and if we can try our very best to keep our comments and questioning appropriately focused, and I think that would be to the best benefit of the group. Thank you. See you at 11:30.

(Whereupon, a brief recess was taken.)

CHAIRMAN GUYAS: Let's move into I guess Part 2 of Kai's presentation regarding the interim analysis and catch advice, and so just one note. It's 11:39 now, and we will stop at 12:30, no matter where we are.

MR. RINDONE: Ms. Guyas, maybe we should go through the scope of work for this item first, because this does bring us to the next agenda item, which is the Final Action Item for the Framework Action to Modify the Annual Catch Limits for Gulf Red Snapper.

CHAIRMAN GUYAS: Okay. We can do that first.

FINAL ACTION: FRAMEWORK ACTION: MODIFICATION OF ANNUAL CATCH LIMITS FOR GULF OF MEXICO RED SNAPPER

MR. RINDONE: Dr. Lorenzen's presentation falls underneath this agenda item, and, as we stated, at its previous meeting, the council had directed staff to start a new framework action to modify red snapper OFLs, ABCs, ACLs, and ACTs, and this framework action uses the catch advice from the SSC's March/April 2021 meeting, and council staff will present this information to the committee to consider after Dr. Lorenzen walks you guys through the SSC's catch recommendation.

You guys will hear a summary also of the written public comment received and be able to review the codified text, which, right now, because there aren't any preferred alternatives, it's what's currently codified for the catch limits. If you guys are prepared to do so, you can select a preferred alternative, and, if you further consider it appropriate, you can recommend that the council ask the Secretary to implement these management measures. Madam Chair.

CHAIRMAN GUYAS: Okay. Thanks, Ryan. Let's pass it back to Kai for his presentation, and then we'll take questions, and I suspect that's going to take us to lunch at 12:30, but, Kai, I will turn it over to you.

SSC REVIEW OF THE RED SNAPPER CATCH ANALYSIS

DR. LORENZEN: Thank you, Madam Chair. This is the review, the SSC review, of the GRSC-informed catch analysis and interim analysis. The setting here was that all SSC members were now eligible to participate and vote, and so the co-PIs of the Great Red Snapper Count participated, and I think one or two chose to abstain from the final motion, but they were not asked to.

These are agenda items directly from the SSC briefing book, so to speak, and so we were presented with two separate items, one a review of the GRSC-informed catch analysis and, secondly, a review of the red snapper interim analysis based on the NMFS bottom longline, and then there's a discussion about those two.

These were, essentially, originally separate items, and, in a way, Leann has stolen my thunder here, by restating the analogy that I used in the SSC meeting, and we really need to sort of consider, together, what we have in the Great Red Snapper Count and the information that we already have about this fishery, and so the analogy, as she stated, is really you drive the car, you learn how it drives, and that's your driving experience.

Then you look under the hood, and you see it's got a bigger engine than you thought, and that basically forces you to recalibrate some of your ideas about that car, and so, if the car is kind of sluggish in accelerating, and you thought, well, it doesn't have a big very engine, now you know it has a big engine, and probably it's quite heavy, and that's why it's still not really quick in accelerating, and so you have to recalibrate your understanding of the vehicle, but you, obviously, have to be aware that you're still driving the same vehicle, and so just knowing that it has a bigger engine will not allow you to suddenly accelerate through an intersection much faster than before. In fact, if you tried that, you would probably be dead.

It also -- Once you have done that recalibration, even though that will not really affect how the car will operate under the conditions that you have previously driven it under, it may open new options, and so, for example, if you know you have a big engine and a heavy car, you can trailer a big boat, and that's cool, and so you didn't know that before, and now you do, and

you can go and buy yourself a big boat and pull it to the boat ramp, and so it can create new opportunities, but you have to understand those opportunities, and you have to go and actually buy that boat, in order to take advantage of it, and I will come back to that, because that's also an important aspect of that analogy.

Now I want to translate that back to the fisheries world, and so the situation we're in here is we have that driving experience, and so we have extensive information already on the red snapper fishery. We know its historical pattern of depletion and recovery after management intervention, and we have a lot of history information and so on.

Much of that information is really synthesized in the stock assessment, and, for the first time now, we have something new and amazing, and that's an absolute abundance estimate. That estimate, in itself, doesn't tell us how to manage the fishery, just as knowing how big your engine is doesn't enable you to drive the car.

We have to basically combine that information with other information, in particular in order to actually get management advice, and, in a sense, the big question is not how many fish there are, but how many fish you can sustainably take, and so you need some way of assessing what fraction of that abundance that you think there is can be sustainably harvested. Much of the information we need to get to that point is in other sources of information and, in particular, in the stock assessment.

I have added a little bit here that I want to go through, and that's really to explain to you the situation that we're in and what it implies, and so this is a little bit of Fisheries Science 101. You will see that it's made-up data, and it's not an assessment of the Gulf red snapper fishery, although it has some elements that look similar, and so don't take the numbers for real or exactly how this behaves, but I want to explain, because I think this is important for everyone to get.

Our driving experience, so to speak, consists of two things. We have catch data over a long period, and this was like forty years or so, and we have indices of abundance, and so those indices of abundance are things like the NMFS bottom longline and the headboat index indices and so on, and, basically, it's catch per unit effort or catch rate information that we interpret in terms of what it tells us about how the relative abundance of the stock changes over time.

Here, we have a pattern in that index of abundance that's a little bit -- That is a little bit like the pattern we've seen in Gulf red snapper, and so there's been a dramatic decline, followed by a recovery, and, as I said, this is made-up, and so don't take it for the real thing, but it's the principles that matter.

That information we use to judge how the fishery responds to the levels of harvest that we take from it, and the stock assessment does that in a formal way, by basically modeling the dynamics of the stock -- What the stock assessment does is basically it reconstructs the population, and then it takes away what we know has been harvested, and it adds what we think is being produced by the stock, through say the stock-recruitment relationship and all those things, and it does that over time. Then it provides us with an estimate of the biomass, and it provides us with an understanding of the dynamics that we can then turn into a catch level recommendation.

Usually, we don't have an absolute abundance estimate, and so we rely on the model estimating the abundance and all sorts of other parameters and then turn that into management advice.

Now, we have our amazing new thing, and so we have that abundance estimate, and I have made it up here to be a little bit like the Great Red Snapper Count, and so the abundance estimate we have here is a lot larger than the abundance that was estimated in our stock assessment, and so then the question is how do we reconcile those two things.

The easiest way to try and reconcile it is to basically fiddle with the model, and, for example, make the unexploited recruitment higher, and so we can do that. We can change something about the model to get it up to that level of the observed abundance, for example by assuming that the maximum recruitment is higher than we thought, and so that's what I have done here, but doing that in a partial way means that we now have a model that has some aspects that correspond to the new abundance estimate and some aspects that still correspond to our previous understanding.

For example, if we have our original model, basically it told us that we have a small, highly-productive stock, and then, by just increasing the recruitment level, we're now saying that we have a large, highly-productive stock, and that's great, because you could fish the hell out of that, but the only problem is this no longer corresponds to what we understand about the fishery historically.

In this case, for example, you can see that, when we do that, our model no longer -- What we have now is this sort of ad-hoc analysis that no longer corresponds to what we know about the behavior of the fishery. It also, in this case, and I have indicated sort of predicted MSY levels next to the catch information there, but it predicts that we can take a lot more from that stock, and the reason for that is that we're now assuming that we have a big, highly-productive stock, but that conflicts with our historical experience, because then we should not assume that big decline in the Gulf red snapper in the 1980s and 1990s.

We need to wholly integrate this, and so we need to basically recalibrate this model to reflect both the new abundance estimate and our experience with the exploitation of the stock.

That is what we're doing here, and, basically, we're allowing the model to change in multiple ways, and, in particular, in this case, the change would be that we adjust our expectations of the productivity of the stock downwards, because clearly we don't have a big, highly-productive stock, and we probably have a big, not-so-productive stock, and that's basically what the model will do, and then you end up with a model that fits the new abundance estimates and fits what we know about the history of the fishery.

Also, in this case, you see, once we have that fully-integrated model, it would actually probably produce a lower estimate of MSY than the partially-ad-hoc-adjusted model, because we now understand that, although our stock is bigger than we thought, it's also less productive than we thought, and so what we end up with is basically a new estimate of management quantities that will likely be somewhat higher than the old one, but notice that it's unlikely to be massively higher than the old one.

In particular, it would not be higher by as much as you might think if you just look at the difference in the abundance estimate, and that's exactly because we need to reconcile that with the information we have with our driving experience. Since you're adding to that big body of information, some of that change will be accounted for by recalibrating our understanding of what's going on.

The other thing that's important to note here is that, throughout all of this, we rely a lot on the index of abundance, and the index of abundance, as a source of information, is data, and so it's not the assessment model, and it's some of the most

important and useful data that we have about the behavior of the fishery, and we would expect any of our new model insights to correspond reasonably to those data, and so that will not be affected by the rescaling of the modeling.

I think that's enough as an introduction, but I think it's important to put this here, and, in fact, this is one of the things that I mean when I say that we need to manage expectations. I think we need to get across the basic ways in which these things work, and this is not in any way specific to the Great Red Snapper Count or the Gulf red snapper or anything, and this is just what happens when you integrate a new estimate of absolute abundance with a fishery for which you already have a lot of information. It will not make as big of a difference as you think just from the difference from the estimate.

Now we get into the meat of the advice that we have here, and so there were two analyses that were presented by the Science Center, and one is catch advice based on the numbers of the Great Red Snapper Count, and so I want to emphasize here that we did look at this, and so we did carry the results of the Great Red Snapper Count forward into this consideration.

The Southeast Fisheries Science Center was asked to produce this advice, and, basically, what they did was convert the Great Red Snapper Count estimates of age-two-plus fish into numbers-at-age by region, and they re-estimated the fishing mortality rate and used the numbers-at-age, F-at-age, and mean landed weight to estimate catch.

There are several assumptions behind this analysis, and one of those, obviously, is that the Great Red Snapper Count point estimates of regional abundance are assumed to be correct as reported. Secondly, there is an underlying assumption here that the SEDAR 52 estimates, which are used for a lot of the other information that is needed here, and the overall abundance estimates correspond to abundance on structure, whereas abundance in the uncharacterized bottom represents cryptic biomass previously not quantified in the assessment.

That's sort of the conceptual model that has been broadly described for why are we seeing the difference in overall abundance, and that's a -- It's a reasonable conceptual model.

It has some issues, I would say, one being that the correspondence of the SEDAR 52 estimates and the estimates on structure may be more of a coincidence, and I'm saying that because, obviously, the confidence limits around both are quite

large, and we know that, if the Great Red Snapper Count estimates were recalibrated to reflect the differences in sampling efficiency, for example in the western and the eastern Gulf, that estimate will change, and so it will no longer correspond -- Even the estimate on structure would no longer directly correspond to the SEDAR 52 estimate.

The other point that I want to point out here is that we know, from the NMFS bottom longline survey, that the -- The bottom longline survey really is thought to be representative more of the biomass on the uncharacterized bottom than on structure, because of the way it's implemented. The NMFS bottom longline showed very low abundance in the 1980s and 1990s, and I can't remember exactly when it started, and then an increase, and so that suggests that the biomass in the uncharacterized bottom is not entirely removed from the influence of fishing.

With those caveats -- Still, I mean, this is one hypotheses, and there might be others, but it's a reasonable hypothesis, but it's important to bear in mind that that underlies the whole further analysis.

Then the analysis says, well, a proportion of that cryptic biomass may be vulnerable to fishing and can be added to the fishable abundance, and different assumptions can be made about the vulnerable proportion of the biomass in the uncharacterized bottom, and the Science Center did present information for different assumptions of that sort, and, also, the necessary adjustments to the FMSY proxy.

They are currently using FSPR 26 percent, and the Science Center also provided projections for FSPR 40 percent, and that comes back to what I described previously, the fact that, since we now think of red snapper as a larger, less-productive stock, FSPR 26 percent is no longer a really credible proxy for MSY, because, if the abundance indeed is that much larger, the productivity must be lower to basically reproduce the same historical patterns, and so we should use a different SPR proxy.

The analysis that was provided by the Science Center essentially presents calculations based on various assumptions about those two things, the vulnerable biomass in the uncharacterized bottom and the FMSY proxy.

In a sense, what these are is they are kind of what-if analyses, and so you basically say, well, if we assume that this proportion is vulnerable at that FSPR proxy, then we get that number, which is a big difference from what we usually do, and

this doesn't quite allow us to basically assess the sustainability consequences of these options in the same way that we usually do, and you would only really be able to do that once that information is fully integrated into the stock assessment.

This is the catch projections table that came out of that analysis, and, in fact, this is the table that came out of a revised analysis on the second day, and the revision, I think, concerned the proportion of uncharacterized biomass, or uncharacterized bottom biomass, that was considered vulnerable to fishing, and so 13 percent and 22 percent. These are the catch projections for those assumptions at the different FMSY proxies, and I will come back to that, and so this is the table that we worked on.

The second piece of information -- Just to repeat, what we had here was, in the scheme of things that I described before, it sort of corresponds to that sort of partial ad-hoc integration of information, and I want to make it very clear here that, at this stage, of course, it was not possible to provide anything else. To get to the full integration, it will take months, or probably a year or longer, because many aspects of the assessment will change, and it's a really, really big undertaking that is done in SEDAR 74 right now.

Another piece of information the Science Center provided is this traditional interim assessment based on the NMFS bottom longline index, and traditional, I guess, is in quotation marks because we have not done this traditionally very much, but it's something that has entered the management realm over the last few years, and the idea is really to adapt our catch advice in the light of changes in relative abundance that are observed. You may recall that, for example, one case I think where that was used was to do with red grouper.

Here, basically, the purpose was to adapt catch advice in the light of changes in the index of abundance, and so these are the NMFS bottom longline index values, and there are two plots here, one for terminal year 2019 and one for terminal year 2020, and those are both provided together with the information that the survey in 2020, for reasons of COVID impact, was more curtailed, and so there was less information, and it wasn't as representative of the Gulf as a whole as this normally is.

One of the decision points here was whether we should use that index of abundance up until 2020 or only until 2019, because the 2020 value was considered not to be really that reliable.

What you can see when you look at this, you can see that, basically, around 2016, the index peaked, and, since then, it's been either stable or declining somewhat, and what this tells us, obviously, is that the abundance of red snapper in the Gulf is no longer increasing, but it's either stable or it's somewhat declining, and that's important, and, obviously, and we'll come to that, we will have to reconcile that information with the other information which we have which came from the Great Red Snapper Count.

Then the method to make this adjustment is actually a tested so-called management procedure, and we were given multiple choices here, and one was the terminal year, and we decided to not use 2020, because of the issues around that, that we didn't really think that point was very reliable.

Then there was a choice of using either three-year or five-year averages, and you can see here that, actually, here, that makes a big difference, whether you base your analysis on a three-year or a five-year average, and the reason being that, really, the main declines have been in the more recent past, and so, if you go for a five-year average, you will, basically, produce less of a decline in the catch advice, or in fact an increase, as we'll see, compared to the ABC we have on the books than if you use a shorter timeframe.

In a sense, using the five-year adjustments here gives us the least conservative use of this, and it gives us relatively high levels. In fact, it suggests that we should increase the catch level a little bit, to 15.4, as compared to 15.1, which was the ABC value on the books, even though we can see that the index is actually probably declining.

Now comes the interesting part. Basically, we were asked, as an SSC, to come up with catch level recommendations, and so we had to make an OFL determination and an ABC determination, and, normally, that happens after a long, drawn-out process of modeling and information synthesis, and that typically will result in a very clear projection of what the OFL should be, one value, and it will give us an uncertainty to consider around the OFL, and then we will determine the ABC either using that uncertainty as it comes out of the model, or, if we feel that the model uncertainty is too small, and the actual uncertainty is larger, we slap some extra buffer on that.

Usually, we discuss this for quite a long time, how much uncertainty is incorporated and so on, but, in the grand scheme

of what we're looking at here, those are relatively small decisions on really well-defined numbers. Here, we have something totally different.

We have all that information in the room from the Great Red Snapper Count and the existing SEDAR assessment, and we have specific analyses, two different alternative analyses, one that is a somewhat ad-hoc use of the Great Red Snapper Count information and the other that doesn't use that information, but it uses the bottom longline index that we know is usually treated as being representative of the stock abundance, relative abundance, changes.

Basically, the SSC members are on the right, and so we were basically looking at all of this information, and every SSC member had to interpret this and come to some judgment about all that information on the table, and then, of course, different people may have come to different interpretations and judgments, and then we had to somehow go from there to management advice, and one would say that one could almost have done the process of putting up a scale of different numbers and get a show of hands and then go with whatever most people are comfortable with.

That was sort a democratic way of getting expert opinion, I guess, but, of course, it's not science in the usual sense, and so we really were left somewhat to making those judgments, and the way that worked is that we made motions, as we always do, and so one motion was made for the OFL, and that motion happened to be made on the basis of the GRSC-informed analysis. Then another motion was made by someone else, and that happened to be made on the basis of the bottom-longline-survey-based analysis.

These were the motions. The first one is the SSC defines the OFL for Gulf of Mexico red snapper for 2021 as 25.6 million pounds wet weight in CHTS units based on the GRSC interim analysis, using 13 percent of the uncharacterized bottom and using a three-year average at FSPR 26 percent on the structured bottom representing the exploited fishery. That motion, as you can see, carried with a small majority and a couple of abstentions.

Then the next motion was about the ABC, and remember that, normally, we have a very clear procedure for getting from the OFL, with additional information, to the ABC, but, really, we did not have anything like that on the table, and so it was clear that it was going to be motions-based, and so the second motion here says that the SSC defines the ABC for Gulf of Mexico red snapper for 2021 as 15.4 million pounds wet weight in CHTS

units, based on the Southeast Fisheries Science Center interim analysis informed by the NMFS bottom longline survey, based on the terminal year of 2019 and the five-year moving average.

That motion just about made it, with a majority of eleven to ten, and, again, I would point out that, although this does not directly involve the information from the Great Red Snapper Count, the choice of going with the least conservative of these I think is somewhat reflective of people trying to integrate that information of the abundance from the Great Red Snapper Count with their judgment on how to use the bottom longline index. There was some integration of information happening, but not in the highly structured and quantitative way that we usually have.

This is really just for context, and this was the recent -- Not recent for quite a while, but the landings history of red snapper in the Gulf, and you can see that the ABC values that were on the books for last year and the new recommended ABC are quite close, and so the new ABC is marginally higher than the old one, whereas the recommended OFL is really very, very different from the OFL that we have on the books for last year.

You can see, when you look at this -- Since we're still in judgment territory, I think it's important to think about the fact that the OFL is much, much higher than anything that this fishery has actually yielded in the past.

There's a little bit of a perspective here, and so this is where we've arrived, and I think I have tried to explain our process, which, again, happened under very rushed circumstances, and so we have arrived at this for now, but this really is only the prelude to using information from the Great Red Snapper Count in management, and it's not even quite the first chapter, because we're basically -- In the request from the council, we were using that preliminary information and preliminary analyses to take a look.

The first chapter is being written, I guess, with the integration of this information into SEDAR 74, the stock assessment, and, also, I think the main -- In many ways, the main -- That will be the first real chapter, but then I think there will be other chapters, and those chapters come back to the idea of getting a bigger boat and using all this information that you now have to essentially use that fishery differently.

I'm talking about information to do with regional distribution and with movement patterns and so on that will probably allow us

to manage this fishery in more different ways and to attain greater gains in overall yield than may be implicated right now or may come out of the SEDAR 74 assessment, but, of course, I have no idea what will come out of that, but I do think it's important to recognize that there are broader options for making changes that will emerge from this information, and we don't really yet know what those are. Thank you.

CHAIRMAN GUYAS: All right. Thanks, Dr. Lorenzen. It is 12:20 now, and I mentioned before that we were going to have a hard stop at 12:30, and so I'm going to recommend that we take our questions and get into this after lunch, and just go ahead and break now. I'm going to pass it back to the Chair.

DR. FRAZER: Thank you, Martha, and thank you, Kai. I thought that was a really well-thought-out representation of the kind of discussion that took place in the SSC committee meeting. Again, thank you for distilling all of that information.

I do think that there are going to be a number of questions asked, and I think that, given that we're now eight minutes prior to our scheduled lunch break, I would encourage people to take the time to organize their thoughts, so we can have a productive discussion after lunch. With that said, we will go ahead and break for lunch, and we will reconvene at 1:30. Enjoy your lunch, guys.

(Whereupon, the meeting recessed for lunch on April 13, 2021.)

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April 13, 2021

TUESDAY AFTERNOON SESSION

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The Reef Fish Management Committee of the Gulf of Mexico Fishery Management Council reconvened via webinar on Tuesday afternoon, April 13, 2021, and was called to order by Chairman Martha Guyas.

CHAIRMAN GUYAS: Right before we broke for lunch, we had the presentation from Kai on the SSC's discussion on the interim analyses and catch level recommendations, and so, at this point, let's have some discussion and questions for Dr. Lorenzen. We may want to have his presentation queued up, just in case there's questions on slides, but, at this point, I will take

some hands.

MS. ROY: Martha, we're having trouble getting sound in the room. Could you repeat what you wanted me to pull up? I apologize.

CHAIRMAN GUYAS: It might be good to have Kai's last presentation on hand, in case there are questions on it. We're in discussion on that, and so I see some hands. I am going to recognize Patrick Banks.

MR. BANKS: Thank you, Martha, and I apologize if this was discussed before the break for lunch, and I was in a different meeting, but the biggest curiosity I have, after reading most of the SSC meeting minutes and talking with some of the SSC, and I would certainly love to hear Dr. Lorenzen's explanation of the thought process behind the SSC feeling comfortable raising the OFL by ten million pounds but only feeling comfortable raising the ABC, or recommending raising the ABC, by 300,000 pounds, and I was hoping that Dr. Lorenzen could try to help me understand that thought process a little bit better from the SSC. Thanks.

CHAIRMAN GUYAS: All right. Thanks, Patrick. Kai.

DR. LORENZEN: I mean, this was a somewhat disjointed process, because we had to make sense of a wealth of disparate information, in the point of view of us, and, really, it might illustrate, a little bit, how we ended up with the OFL as the --

Initially, that had a smaller number, and I think something on the order of twenty-one million, and then a substitute motion that had the exact same text, but a bigger number, was put up, and that motion was voted on, and it passed with a small majority. I think that's the best explanation that I can give you of how we ended up with that number.

I guess, if that motion had failed, we would have reduced that number to something lower and voted again, and maybe that would have stuck, and so, I mean, that's the sort of level of uncertainty really surrounding the OFL estimate, in this case.

As far as the ABC goes, of course, in principle, the same process applies, only that, in this case, the SSC -- The motion that was made and passed with a slim majority was based on the bottom longline index, and that is information that we would have used to make that recommendation in a normal year without that information we had from the Great Red Snapper Count.

That value, I would say, is consistent with the advice that we would normally have provided, but the OFL probably is not, but, since we had multiple sources of information, and we had not decided to just use one or the other, and we couldn't, because that wouldn't answer all of our questions.

Really, as you pointed out, we have a very structured process, and there is a clear correspondence between the OFL and the ABC, because we determine the OFL, and then we determine the ABC on the basis of the same information, while accounting for any uncertainty that may not have been characterized. Then there is a clear correspondence between the OFL and the ABC, and, in this case, that really could not be achieved in that way.

CHAIRMAN GUYAS: Does that answer your question, Patrick?

MR. BANKS: Yes.

CHAIRMAN GUYAS: Okay. Thank you. Next is Mr. Dyskow.

MR. DYSKOW: Thank you. I know we're having some problems with the audio, and can everybody hear me okay?

CHAIRMAN GUYAS: Yes. It sounds like maybe it got fixed right at the end of when you were speaking.

MR. DYSKOW: My question for Dr. Lorenzen, and I certainly I appreciate his analysis, and it was very thorough, and I have to admit that portions of it were probably over my head, but a couple of observations. One, it appears to me that these were very conservative decisions, and basically knowing the --

CHAIRMAN GUYAS: Hold on, Phil.

MR. DYSKOW: The intent was to make a relatively conservative decision, and, in looking at the votes, both on the OFL, but particularly on the ABC, these votes were very close. In other words, there were just about as many people against it as there were for it, and what was the other side of this argument? I know the analysis that you gave was based on the decision that was made as to OFL and ABC, but, since about half of the SSC didn't agree, what was the alternative argument?

DR. LORENZEN: Well, of course, there were probably many arguments in many people's heads, and we did not have the time to explore all of those, but my interpretation would be that clearly there were members of the SSC who felt that the ABC recommendation was too conservative, in light of the information

from the two different sources that we had on the table. Likewise, there were many SSC members who felt that the OFL was not conservative enough.

That is really all I can say about it, because, actually, we made those motions in fairly quick procession, and it was clear that there really was, in the information we had in front of us, nothing that we could use to arrive at a more coherent picture, unfortunately, and that comes back, and that is really part of the criticism that Dr. Powers had of this process, that we were not provided with what we would have needed to come up with something more coherent.

MR. DYSKOW: Thank you.

DR. LORENZEN: I wish I had better news.

CHAIRMAN GUYAS: Thanks, Kai. Let's see here. I don't know what order these hands went up, but I'm just going to scroll through the list here. I see Andy's hand is up. Andy, go ahead.

MR. STRELCHECK: Thanks, Martha, and thanks, Kai, for the presentation and answering our questions. I asked, during the SSC meeting, a similar question that Patrick just asked, and what I would like, Kai, is if you could expand a little bit more about the ABC decision, and certainly I think correct me if I'm wrong, but, from what I heard, listening to the SSC meeting, the SSC was certainly concerned about the bottom longline index trending downward, and they were also weighing-in on individual studies and research, where their own observations were indicating some declines in abundance on the structured habitat.

The decision to set ABC based on the bottom longline analysis, versus the Great Red Snapper Count, kind of really hinged on a lot of personal observations and the fact that the population might have plateaued, or even declined, despite having this kind of high abundance of fish in the uncharacterized bottom, and so can you elaborate on that? Is that a correct characterization, or are there other things factored in when making your decision about the ABC?

DR. LORENZEN: Thanks, Andy. Well, indeed -- Remember that, of course, the bottom longline index is what we think actually is somewhat representative of the fish in the uncharacterized bottom, and so it's sort of a mix, I guess, of that and structure, but it's certainly not leaving that out, and what we see, when we look at that index, is that the relative abundance

of those fish is either stable or declining, and that observation is completely independent from the observation of absolute abundance that we have from the Great Red Snapper Count.

It doesn't matter what that is, but what we're seeing is that the relative abundance is stable or declining, and so that trend is not influenced by an estimate of absolute abundance, and it's literally an observation of where, in its change over time, the stock is headed.

Usually, if we had used this, honestly, I would have looked at it and said, and I think I actually did that, but I would have looked at it and said we've got to be conservative, and the council, of course, has done that in other cases, and think of red grouper, for example, where the council has looked at indices of abundance and made decisions that were conservative.

In this case, essentially, we could have done the same, which would have resulted in a reduction of the ABC, but there was also, of course, the information about the apparently high level of absolute abundance on the table, and I think that prompted many, including myself, to be less conservative in interpreting the bottom longline data.

Remember that, even though we have looked at that information, we have actually made the least conservative decision we could make on the basis of the bottom longline data, which actually resulted in an increase of the ABC, even though, in recent years, the index was going down. In light of that, we have taken a not conservative decision. I don't know if that answers your question, but I am happy to expand more if need be.

MR. STRELCHECK: Kai, that's helpful, and I had the benefit of, obviously, hearing most of the SSC meeting, and so I wanted to make sure, if I'm characterizing what I heard from the SSC, that that's accurate, and I don't want to, obviously, misconstrue any sort of decisions that you reached and the rationale for reaching them, and so thanks for clarifying.

CHAIRMAN GUYAS: Thanks, Andy, and thanks, Kai. Next up, we have Kevin.

MR. ANSON: Thank you, Madam Chair, and thank you, Dr. Lorenzen, for the presentation. It was a good move, on your part, to go ahead and include some of those Kai Lorenzen thoughts slides and explain and give some more detail on how the conversations developed during the SSC meeting.

I have a specific question or two about Slide 10, and so if that can be brought up from your presentation. That's the slide, and, first, I guess I want to -- You made a comment, or there were comments made in the SSC meeting, about the productivity of the red snapper stock, and is it the general feel, or sense, of the SSC that, generally, in a relative sense, the Gulf of Mexico red snapper stock is considered to be not very productive, or not highly productive?

DR. LORENZEN: I did not -- You were breaking up, and I did not hear the early parts of your question, but are you asking whether there is the impression that the stock is not highly productive?

MR. ANSON: Yes, and is that currently how the SSC perceives the stock?

DR. LORENZEN: Right now, I mean, if you look at the SEDAR 52, the traditional perception was that this was a small, but highly-productive stock, and so we know that, once it was depleted, it was able to bounce back. It was very badly depleted, and it was able to bounce back, because we thought it was a small but highly-productive stock.

Now, if we incorporate the abundance estimate that came out of the Great Red Snapper Count, the -- Well, maybe not -- I guess there could be different hypotheses, but, more or less, the conclusion will have to be -- (Part of Dr. Lorenzen's comment is not audible on the recording.)

Basically, that is more or less a necessary consequence of integrating the greater abundance estimate into what we already know about the stock, and I think that's -- That's not a -- It's also something that I think Dr. Porch has alluded to before, and so it changes our perception of some of those fundamental aspects of the stock, and all of that, of course, is assuming that the final estimates of the Great Red Snapper Count and so on will turn out in the way that the preliminary estimates are.

MR. ANSON: You did break up there a little bit, and I don't know, Madam Chair, if you want him to go back or -- I mean, it was a small part, but --

CHAIRMAN GUYAS: I hate to say it, Kai, but can you concisely try to answer that again? You did cut out for probably --

DR. LORENZEN: Yes, and so what I was said was that, right now -

- I mean, if you look at the stock assessment, so far, our impression has been that this is a small but highly-productive stock. The estimate from the Great Red Snapper Count, the absolute abundance estimate, when we integrate that with our understanding and our knowledge of how the stock responded to different levels of fishing in the past, it will lead us to the conclusion that this is a larger, less-productive stock, and so that's an inevitable consequence, essentially, of combining the high abundance estimate with what we know about how the stock behaves.

I wanted to point out that this something that Dr. Porch has also discussed before, and so this is not an SSC opinion, but it's something that will more or less inevitably be the consequence of integrating this abundance estimate with the information we have about how the stock responds to fishing.

CHAIRMAN GUYAS: All right. Thanks, Dr. Lorenzen.

MR. ANSON: I have a couple more questions, if you want to come back to me.

CHAIRMAN GUYAS: Go ahead.

MR. ANSON: Thank you. Kai, at this Slide Number 10, let's just assume -- Let's assume two things. Let's assume that there is a high abundance, and let's assume that it's highly productive. Where would the curve go on that lower-right-hand graph there?

DR. LORENZEN: It would do what the curve actually on the previous -- If you can go back two slides. That would be what we have here, that I called the -- This would be basically what the stock would do if it's had a high abundance and a high productivity, and you can see that, under that assumption, there would not have been that depletion that we know that has occurred, because, basically, you have a lot of fish, and they would be very productive, and so the catches that we know were taken would not have depleted this population in the way that we know that they did, and so that assumption is inconsistent with what we know about how the stock has behaved in the past.

MR. ANSON: So it does rely a little bit -- In the context of all the information that's provided to it, it does rely upon the inputs of fishing mortality, correct?

DR. LORENZEN: Well, the fishing mortality is estimated from fitting the assessment model to catch data and abundance indices and size and age structure data, which is not here, and I do

remind you that this is here for illustration, and so don't mistake this for the red snapper stock assessment, but I am trying to illustrate those principles.

So the fishing mortality rate is estimated, and, in fact, in this case, because the catches are still the same, the abundance that we estimate is greater, and so the fishing mortality rates would be lower that come out of this model estimate, but also -- No, I think that answers the question.

MR. ANSON: I think that -- Just one other question then. In terms of the issue of vulnerability and the uncharacterized bottom, how does that translate to the actual proportion of catch that is estimated or thought to be occurring? Is that -- I think it was related to how much they thought of the harvest was being attributed to the uncharacterized bottom, the 13 and the 22 percent.

DR. LORENZEN: Yes, and so the assumption -- This is sort of a fundamental assumption behind that analysis that the Science Center did, was the idea that the SEDAR 52 assessment really basically characterizes what's going on on structure, and then, in addition to that, there is a biomass in the uncharacterized bottom.

Of course, it's sort of, logically, a little difficult to think about this by saying, well, maybe 20 percent of that is vulnerable to fishing, and, if that's so, why is it not already in the fishery, right, and so you would have to -- You would have to struggle a bit for an explanation there, and I think, in reality, the biomass in the uncharacterized bottom is not unaffected by the fishery, quite clearly, because we can see that the bottom longline index does more or less the same, historically, as the other indices of abundance that have been derived more from structure.

There is a connection, and it might be through the life history, and so it might be that these fish recruit to structure and that the biomass in the uncharacterized bottom then reflects the harvesting that went on on the younger ages of those fish that later end up in the uncharacterized bottom, and it may be harvesting of fish on the uncharacterized bottom, and the information about age and size structure and so on may help us to figure out, really, what's going on there.

We have not reviewed that information, and I think that will be part of the research track assessment that's going on at the moment, and so you see the level of uncertainties that we're

dealing with here in terms of interpreting what this difference means and how it actually affects the dynamics of the stock.

MR. ANSON: Thank you, sir. That's all I have for right now. Thank you.

CHAIRMAN GUYAS: All right. Thanks, Kevin. Troy Williamson.

MR. WILLIAMSON: Thank you, Madam Chair. My comments are pretty much observations here, and I listened to the committee, as they discussed these issues, and I guess it was last week, and particularly the final day, when these motions were made and passed, and it was interesting to me that two reviewers, in particular, commented that they thought that the population densities in the uncharacterized bottoms were grossly underestimated.

I don't think those folks were, if I recall correctly, given the opportunity to vote on these motions, and certainly the acceptable biological catch may have had a different outcome had they been, and still what is disconcerting to me is that we use a different yardstick, and we measure the OFL using the abundance, and then we flip-flop back to another method that we've learned does not have as many sites for information taken, detail points, as the Great Red Snapper Count.

Ultimately, I am having a hard time with it, but I guess the good news is that the SSC's recommendations on OFL and ABC are advisory in nature, and not they're not binding on the council, and so, with that, I will conclude my remarks.

CHAIRMAN GUYAS: All right. Thanks, Troy. Clay, you're up next.

DR. PORCH: Thank you. Obviously, there's a lot to unpack here, and I see Dr. Frazer is on the list, and so I'm not going to address a couple of points that were raised, but I do want to address this issue of productivity.

You have to keep in mind that there's a lot of other studies that have been going on at the same time as the Great Red Snapper Count, and, actually, one of the members of the Great Red Snapper Count team mentioned, during the SSC meeting, that it does seem like red snapper are really a series of smaller metapopulations.

If you look through the history of this fishery, you can see, even early on, as early as the 1800s, that they were able to

drastically deplete populations in certain areas, and they had to keep expanding their range and fishing bigger and broader areas, and you even see that today, in that the Dry Tortugas is only now really coming back with some fish, but, at one point, that was a big part of the fishery, where a huge amount of tons of fish would come out of that.

Then it just dried up to nothing, and, like I said, now, only now, it's really starting to come back, and it's not anywhere near what it used to be, and so, obviously, the dynamics here are a lot more complicated than maybe we thought. We're still learning about it, and there's multiple populations that partially replenish themselves and partially seed other areas, but Kai is correct, conceptually.

On the one hand, when we conducted the assessment, we thought we had a smaller, highly-resilient population, and resilient in the sense of productive on a per-capita basis, and now we see, in order to get the same trends, but we have a much bigger population, yet we get the same trends with the same catch, and it does imply that the stock is less productive than we formerly thought.

A lot of things need to be rethought about this stock, and we need to look at all the information, including the Great Red Snapper Count, in the upcoming SEDAR assessment, and I think we'll find that, once we start piecing all this information together, we'll have a much better picture and a much better story than we do at this point.

The other thing I wanted to mention is the reviewers sent the Great Red Snapper team home with a fair amount of homework, and I think, when some of those points are addressed, next year, the SSC might have a little more confidence to step forward with a different catch analysis.

One of the other things that they would have next year is an updated bottom longline survey and an updated video survey. Remember, in 2020, it was almost the year with no data, because of COVID-19, and we didn't have any survey results, really, and even the bottom longline was only a partial survey, and so that's why the SSC elected not to use it to update the ABC.

Next year, we'll have, hopefully, complete surveys in 2021, and we'll have a little better information to make a decision on, and I think, at the same time, and maybe Dr. Stunz could comment on it, but, unfortunately, they weren't able to survey a large fraction of Louisiana this year, which led to some of the

uncertainty that the SSC had, but there is a study ongoing now that hopefully could remedy that, and so I think we'll be in a very different situation next year. Thank you.

CHAIRMAN GUYAS: Thanks, Clay. Just one question to your point there. Is the Science Center back online and doing a lot of that field work now?

DR. PORCH: Yes, and, in fact, we're out doing the video survey now. We're on point to do the longline survey, and now we're at a point in our automation that we can process the data much quicker, and I would expect that, by December or January, we would actually have updated indices of abundance from the longline survey. The video still takes a little longer to process, because you have to read all those videos, but we're working with artificial intelligence, automated image analysis, to try and speed that process up too, but I would expect, by this time next year, we'll have a lot more information to go on than we did at this SSC meeting.

CHAIRMAN GUYAS: Great. Thanks, Clay. Let me go to Greg, since a couple of those, I think, comments were for Greg, and questions for Greg, and do you want to respond to those?

DR. STUNZ: Thank you, Madam Chairwoman. Clay is right. Part of the value of this review process, which I mentioned earlier, was they gave us some things to look at, in the sense of maybe some other ways to capture some of the variability that we couldn't, for example, and our team is more than willing to do that. We don't know what it will look like, obviously, until we go do it, but it's likely going to help.

Do I think it's going to affect the actual estimate? No, but perhaps it will reduce some of that uncertainty, and so there is some time for us to do that still. The other thing that I want to comment on is the uncharacterized bottom, and, while Clay and John Walter and his team did a good job of what they could do quickly, I think, to piece together the amount of fishing effort that's occurring over that uncharacterized bottom, I think we still have a long way to go. I think hopefully Clay agrees with me on that, because that's going to be very key, in the sense to better understanding that uncharacterized bottom and the fishery exploitation that actually occurs out there better than we can just right now with what we have at-hand.

One of the big questions to understand there is how much exchange is really occurring in that area, and we simply don't have that data, but I can inform the group that, even since

we've been having this discussion today, I'm getting a lot of text traffic and things from anglers and fishermen, and even commercial fishermen, that there is a lot of exploitation occurring out over that uncharacterized bottom, and so that's something that we need to explore a lot more, as well as the size structure out there.

CHAIRMAN GUYAS: Thanks, Greg. I would agree with that. Dr. Frazer, you're up.

DR. FRAZER: I wanted to first clarify a couple of things and respond to some of the comments that I've heard with regard to the role of the peer reviewers and the meeting that was held a week or so ago, and there were two parts to that. One included the peer reviewers, and they were able to participate fully in that process.

The second part of that meeting falls under the purview specifically of the SSC, for the purpose of generating catch advice, and the peer reviewers did not participate in that, from a voting perspective, and that's not their role. Then, with regard to the council's ability to respond -- Excuse me. With regard to the council's authority, I guess, to override, perhaps, and maybe that's the wrong word, the catch advice provided by the SSC, that's not the case.

In fact, the council can recommend something lower, but they cannot recommend something higher than the recommendation coming from the SSC, and so I just want to make sure that everybody understands that.

I just want to also make a few other general comments. There's a lot of discussion about fisheries management and the science part of it and kind of the socioeconomic side of things, and the United States really sets the standard for successful fisheries management, I think in large part because we have the MSA, and I didn't want to let that fact be lost on people here.

In fact, it's successful because it's a science-based process that we've set up, and it includes our SSC, and I respect all of the members of the SSC, every one of them, and I think that what they have done here is provided their assessment. Although viewed fairly conservatively by a lot of people, it's certainly within their purview to do that, and they have a responsibility to offer catch advice that doesn't put the stock in a particularly bad situation. In fact, they want to ensure that it's sustainable for everybody to use.

Having said that, I think what people are looking at is the fact that there's a great deal of uncertainty surrounding some of the data that were incorporated into this most recent kind of interim catch advice, and the fact that there was a vote of eleven-to-ten reflects that there's a great deal of variability among the SSC members and their comfort level as it relates to risk.

Moving forward, and I'm not sure that we can accomplish that here, necessarily, other than to point out, as Dr. Lorenzen did, that we will certainly take advantage of all the great work that was done as part of the Great Red Snapper Count to increase our understanding of the fishery and the fisheries dynamics, and we will improve our certainly around some of those estimates, and I think that that will lead to better decision-making and better advice moving forward.

This is, in fact, just Chapter 1 of this process, but what would we be looking for? Moving forward, I think, speaking on behalf of the council, it's more than just simply getting catch advice, right? It's about understanding, I think, the implication of perhaps alternative advice. If we had, for example, a greater, or a higher, ABC, and let's say, for example, and I'm just giving -- I'm not on the SSC, and so I'm going to be careful not to make their decision for them, but we have a large part of the ocean bottom in the Gulf of Mexico that is uncharacterized, but it actually has -- Because it's uncharacterized, there are structured habitats, and probably exploited habitats, out there that hold fish and may have some influence on the available fish, or the fish that might be available for exploitation.

That gets to this idea of how much risk are we willing to take, but there's another part of that, and the other part of that is, okay, if we were to be a little less risk-averse, perhaps, and were to generate a higher ABC, what would we use? What type of scientific information would we use, aside from the bottom longline survey, that would allow us to evaluate our decision and whether or not we made a good one or a poor one?

A lot of that would come, in fact, from the state data, in my view. The concern, a large concern, coming from the SSC, based on the conversations that they held in their meeting, was that you might have localized depletion, and even localized extinction, and, if you had that, that's essentially the hypothesis, right, and that's the risk-aversion part of this. You don't want to leave the situation like that, but, in fact, if you were to allocate more fish, and you were to go down that road, what would you expect to see, and what data could you

collect that would allow you to correct course, if need be?

Because each of the states have generated data, or provide data, in-season, you would expect, over time, that you would have a reduced catch per unit effort. You would expect, for example, that you would have a lower size-at-catch, and we have that data.

The question for the SSC over time, and perhaps in the next phase of this, is at what CPUE, and at what-size at-catch, should you be concerned that you're in fact starting to cause a problem on the fishery?

These are things that I think, moving forward, we should talk about, and I think that I will take the responsibility, as Chair of the council, perhaps, for not giving more clear advice to the SSC and the types of the things that we find beneficial here on the council, and I will endeavor to do a better job moving forward, but I just wanted to share some of these thoughts as we move forward, because there's a lot of really good people that work on our SSC, and there's a lot of really well-intentioned council members here, and there is certainly a very informed and well-intentioned public out there as well, and so I am just trying to set the tone here for a continued conversation. There you go, Martha. Back to you.

CHAIRMAN GUYAS: All right. Thanks, Tom. I have a number of hands up. I am going to go next to John Sanchez.

MR. SANCHEZ: Thank you, Madam Chair. Due to the distance associated and the difficulty in assessing the fish biomass in the low-relief, uncharacterized bottom, one might argue that those fish have always been there, and, since those fish have always been there, it begs the question of what happened that rebounded this fishery so greatly since approximately 2007?

The answer to that, at least to me, is pretty obvious. It's the management measures that were put in place by this council that helped rebuild this fishery. My concern is, if we rush in and dramatically increase the ABC, we risk reversing the rebound that this fishery -- That is taking place right now, and we potentially move in the wrong direction, where we're depleting instead of rebuilding.

The million-dollar question, given everything that's going on and all the needs of everybody involved, is what is a risk-averse percentage increase, if the 300,000-pound increase is maybe too conservative? I think we should be focusing on that

and see if we can be, all of us, a little bit reasonable in our risk-averse approach of this, and maybe arrive at that number and move on. Thank you.

CHAIRMAN GUYAS: Thanks, John. Next up, I've got Robin.

MR. RIECHERS: Kind of building a little bit off of that, and something that Clay had said, as well as Kai -- Kai, when you were discussing the uncharacterized bottom and the movement into the fishery and what part of that is available -- Of course, the science you were presented was based on the two F approaches and then the 13 and the 22 percent, I believe is what it is.

Can you or Clay -- I mean, I'm assuming that's some measurement of what we believe is the portion that's available into the fishery, and that's what you shared with us earlier, and do we know how that was derived? How did we go about estimating -- Where did we get the 13 and the 22, as opposed to, Kai, as you kind of indicated a moment ago, 20? How did we come about those two differences?

DR. LORENZEN: I think I will let Dr. Porch answer that.

CHAIRMAN GUYAS: Clay, do you want to take that one?

DR. PORCH: What we did is look at the VMS tracks for the commercial fishery and find out how many of them basically overlapped with what we think was how the uncharacterized bottom was mapped by the Great Red Snapper team, and that's where, as Greg mentioned, probably we could do a little more work, just to make sure that our characterization of the uncharacterized bottom is the same as the Great Red Snapper Count, but we think it's pretty close, since we used pretty much the same data and looked at their report.

The bottom line is we looked to see how many of the commercial fishing tracks stopped to fish in what is perceived to be the uncharacterized bottom, and it ranged somewhere between 13 and 22 percent, and then the problem was -- A bigger problem was for the recreational fishery, because we don't have that, and so we had information by iSnapper and others that give us some idea of how far recreational fishermen go offshore.

We tried to get a rough idea of how much of that might be going into what was called the uncharacterized bottom, because remember that uncharacterized bottom isn't just unconsolidated sediments. It's punctuated by various types of relief, whether it's bio-excavations or other creatures burrowing in the mud and

creating structure or a small wreck or some other artificial reef that just isn't mapped in the artificial reef universe or natural bottom that just is poking up out of the mud, so to speak.

No doubt some fishermen have numbers in those areas, and so we did the best we could to account for that, but what essentially the argument was is that the F 26 percent reference point that's used to define OFL was based on estimates that came from where the fishery actually operates, and so the analog with the Great Red Snapper Count is we would use that F 26 percent benchmark reference point over the fraction of the Great Red Snapper Count where the fishery -- That range where the fishery actually operates, and that's why we came up with those particular numbers.

CHAIRMAN GUYAS: Clay, let me ask, because I know this came up at the SSC meeting, and so that analysis especially looked at landings coming from what's considered, I guess, the uncharacterized bottom, but were you able to look at all harvest and catch, including discards from like bottom longline fishermen that don't have quota to land those fish?

DR. PORCH: In the case of the commercial fishery, we're looking at where they were fishing, and so we didn't necessarily -- We did look at the total kill, and just try and get rough exploitation rates, and apparently -- Shannon is chatting me, and she said that I got the 13 percent wrong, and that actually came from the random forest model that was actually used in the Great Red Snapper study design, and that was the proportion and the uncharacterized bottom determined to have a high probability of red snapper encounters.

CHAIRMAN GUYAS: Got it.

DR. PORCH: John Walter said that we did not account for the discards when we looked at the distribution of commercial fishing effort, which makes sense, because we only have a fraction of that that's actually covered by the observer program.

CHAIRMAN GUYAS: All right. I think that would be really interesting, and I think it came up, but maybe that's another one of those next steps things for the assessment. Okay. Next, it looks like we have Susan.

MS. SUSAN BOGGS: Thank you, Madam Chair. My question is kind of probably a next-step question, but there's been a couple of

comments, and Greg made one, about that he was responsible to his funding source, and I understand that, and I know that the council has leaned hard on the Great Red Snapper Count, and I hear the SSC saying that they sent some homework home with the Great Red Snapper Count, and how does all of that work together?

I mean, once Greg, and maybe this is a Greg question, but the report is submitted on June 14, 2021, does that mean we're done with this, or is this something that we can continue to build on and help answer some of these questions, because it sounds like -- I read bits and pieces, and I've listened to a lot, and it is information overload, but we've got a lot of great information here, and I hope we can continue building one on the other and look at some answers that might get us a little further along than where we are this meeting today. Thank you.

DR. STUNZ: To that point, Madam Chair?

CHAIRMAN GUYAS: Go ahead, Greg.

DR. STUNZ: That's a good point, Susan, and thanks for bringing that up for the team, and the review team brought up some very interesting things that we hadn't considered, which we think are valuable, and our team has agreed to do that ahead of turning in our final report, and, of course, obviously, the money is spent, and it costs people time and effort, and there's other projects going on, and we don't have a fixed salary that we live off to keep doing this forever and ever, but we recognize the importance of this, Susan, and so we want to do what we can before the final report is due in June, and we will.

Now, post-then, I don't know if the Science Center would continue with exploring these things. As everyone is well aware, many of the SSC are part of this project, and I can't imagine that they wouldn't want to continue using this data and exploring options and that sort of thing, but we wouldn't have a formal project or funding to do that, although we would be very interested. I mean, we don't want to have done all this work not for it to be fully utilized, and so we just need to come up with mechanisms to keep this going, but I don't know what those mechanisms are right now, post-June, but it's something we need to discuss.

CHAIRMAN GUYAS: Thanks, Greg. I suspect that all the work that you all have done will keep many future graduate students busy trying to answer some of these questions that have come up.

DR. STUNZ: Yes.

DR. LORENZEN: Can I quickly chime in?

CHAIRMAN GUYAS: Sure. Go ahead.

DR. LORENZEN: I agree with Dr. Stunz here, and this is one of the questions that really was brought up with this type of project, where you have a study team that is not in NMFS, and so they get funded, and we're all in the same boat as academics, and we get funding to do our work, and we submit reports and publications, but we're not necessarily there to then engage in years of follow-up.

Of course, that's different with the Science Center. If we send something back to them, they will -- They are still getting paid, and they're coming back with new information and so on, and I just wanted to emphasize that it's really an important thing to consider going forward.

Of course, we now have other projects that are somewhat like the Great Red Snapper Count for the South Atlantic red snapper and for greater amberjack and so on, and so we have to find modalities to solve these issues of how we interact, how the fisheries management process interacts, with those projects. It's really, at the moment, not quite clear how best to do that, but I wanted to flag that, and there's a need for a broader discussion of how this can be achieved. Thank you.

CHAIRMAN GUYAS: All right. Thanks, Kai. Next up is Troy Williamson.

MR. WILLIAMSON: Thank you, Madam Chair. There's a lot of good conversation, and I am not going to try to dilute it any further, and I know we're running out of time, but just one point as to the interpretation of the council accepting the advice of the SSC. The restriction that was noted may be an agency interpretation of the Magnuson-Stevens Act, but there is no such restriction placed on the council in the Act itself, and so, with that, I will sign off.

CHAIRMAN GUYAS: Greg, I think you've already gone, but is your hand up?

DR. STUNZ: I will pass.

CHAIRMAN GUYAS: Okay. Great. Thanks, Greg. Then I'm going to recognize Ed Swindell.

MR. SWINDELL: Thank you, Madam Chair. I have one general comment. I am sitting here listening to all this conversation, and I have been a big supporter, as you all know, of the SSC, and they've out come out, to me, to be the scientific information that I can depend on. With this past meeting, and all the stuff that's gone on with this particular meeting of the SSC, I have got to rethink my strong support at this time, because of -- Especially when you take a couple of members, or a few members, and don't allow them to vote, and you're telling them that, because they've done certain work here and there, that they're not good scientists to fully evaluate what's being presented, and I think that's wrong.

As an engineer, I look at everything that's available to me to do anything, and so I just am having grave difficulty believing that, and I can't believe that, with the vote that was taken, and only a 2 percent difference between the vote, that it's presented to this council as the best scientific information available. I'm sorry, but that doesn't fit the bill.

I would rather have them come back and say the vote was so close that we've got to continue to review this some before we can give you a good recommendation, because this just doesn't seem proper, and so, Madam Chair, I'm sorry, and I just -- I am just having a lot of trouble with this scientific information that's been provided to us as being the best scientific information available. Thank you, Madam Chair.

CHAIRMAN GUYAS: Thanks, Ed, and I see Mara's hand is up. Let me just clarify, again, that the folks that worked on the Great Red Snapper Count that are on the SSC were and did, I think in most cases, vote, or were able to and did vote on the OFL and ABC motions. Mara, go ahead, and I know that you're probably responding to that.

MS. LEVY: Thank you. Actually, I was just going to respond to the idea that the council isn't bound by the SSC's ABC recommendation, and so I was just going to point you to the section of the Act, which is 302(h)(6). 302(h) tells you what the functions of the council are, and (6) says develop annual catch limits for each of its managed fisheries that may not exceed the fishing level recommendation of its scientific and statistical committee. I just wanted to make sure that everyone knew what that provision in the Act was.

CHAIRMAN GUYAS: Okay. Thanks, Mara. Thanks for looking that up for us. Andy.

MR. STRELCHECK: Thanks, Martha. Mara made my point, and I was going to read the Act as well. Also, to add to the comments about who was authorized to vote or not vote, the only thing that I would add is there was one Great Red Snapper Count scientist that chose to abstain on the decision for ABC, but everyone involved in the Great Red Snapper Count that sits on the ABC was authorized to vote if they so chose to make that decision.

CHAIRMAN GUYAS: Thanks, Andy.

DR. LORENZEN: If I could just briefly comment, the question of the quality of advice that came out of -- (Part of Dr. Lorenzen's comment is not audible on the recording.)

I want to emphasize, as he said, that the SSC was put in a pretty untenable position to come up with this, because the -- that we had to give this advice was just not ready for primetime, and so, basically, I think the response to that, in order to essentially maintain the normal quality of the SSC advice, would have been -- (Part of Dr. Lorenzen's comment is not audible on the recording.)

-- we have, but it really should not be laid at the feet of the SSC that we were -- That we did not have the information of the sort of quality and coherence that we normally use to make our decision. Thank you.

CHAIRMAN GUYAS: Okay. Thanks, Kai. I am going to do one more sweep for hands here. J.D., is your hand up?

MR. DUGAS: Yes, ma'am. I have a question, maybe a question or a clarification, for Mara. As from the council's perspective, we can't exceed the OFL recommendation by the SSC, but we can, as a council, increase the ABC, and that's a question.

CHAIRMAN GUYAS: Mara.

MS. LEVY: No, that's not correct. The language in the Act talks generally about fishing level recommendations from the SSC, and the National Standard 1 Guidelines put more specificity on that and say that the ABC is the fishing level recommendation that the councils cannot exceed when setting their ACL.

CHAIRMAN GUYAS: Okay. Thanks, Mara. I am going to go to Leann, and then I think it sounds like we're ready to talk about the document itself, and so we'll move into that after Leann goes. Go ahead, Leann.

MS. BOSARGE: Thanks. It's something that I've been thinking about, and I didn't know whether to bring it up or not, but, since we sort of touched on it, I will briefly give my thoughts. As we went through that SSC meeting, as was stated before, the PIs, and so the scientists that worked on the Great Red Snapper Count, during that first, I guess, two days of the meeting, where it was really a review of the Great Red Snapper Count and learning all about it and this and that.

At the end of that, they didn't vote on where the review landed, right, but then, after that, when we moved into catch level recommendations, catch advice, they did vote after that, and someone mentioned that one of the scientists from the Great Red Snapper Count actually ended up abstaining on that ABC vote, and he made some comments that he had voted on the OFL, and, after voting on that, he thought better of it, that I don't know that I should be voting, even though we're done with the review of my work.

Before the meeting, the way that we lined it out, it made perfect sense to me. Yes, you would abstain when you review the work, but then, after that, you should vote freely, but I guess sometimes hindsight is 20/20, and it's a question of what are you -- What do you want people to abstain from?

You're wanting them to abstain from a vote that would say whether you should be using that work for management advice, right, and so, had things gone differently, and sometimes we do make these motions, where we say the best scientific information available, and, once we do that, then that has an implication that you will use it for management, period. It's free for all, and you can use it for whatever you want, as long as you do it in a properly scientific manner, right?

However, during this meeting, because there were some things that needed to be clarified and work that needed to be brought back, and we didn't go down the path of actually making any determinations on that, and so we didn't say how it would be used.

However, the next vote, the next part of the meeting, did just that, and it was another essential discussion of are we going to use this, and how, and we did allow votes from the scientists that were part of the work, and so I just think it's something we may want to revisit in the future, knowing more now, and determine what is the best path forward, and so thanks.

CHAIRMAN GUYAS: Thanks, Leann. Ryan, I saw your hand go up for a second. I don't know if you want to speak, and I don't know if we want to go through the public comment before we go into the document. I don't see public comment posted yet.

MR. RINDONE: I would think that's probably a good idea, Madam Chair, to go through the public comment before we go through the document. Just what I was going to speak to is about the co-PIs for the Great Red Snapper Count not voting during the peer review portion of the meeting, and that was in keeping with the guidance from National Standard 2, having to do explicitly with peer review, and we reviewed that a few different times during the SSC meeting, and also with the co-PIs prior to the SSC meeting. There was an understanding about essentially not voting on one's own work, which is outlined, like I said, in National Standard 2, and that's why that was done that way.

CHAIRMAN GUYAS: Okay. Thanks, Ryan. That's helpful. Kai, did you want to jump in one more time?

DR. LORENZEN: Yes, one more time. One thing, and I did check, and I think, actually, if had asked the co-PIs to abstain from the vote on the catch level recommendations, I think that would not have made a difference, and both motions would still have passed, but I'm not 100 percent sure, but I did look at that.

There were votes that surprised me in that process, individual votes, and I what that tells us that -- I mean, really, everyone on the SSC was voting their expert conscience at that stage, and that was -- But I also want to, since this my appearance on this topic, I just want to emphasize that it's been challenging for all of us, and -- I want to reiterate my thanks to everyone involved, the Great Red Snapper Count team and the independent reviewers and the SSC and the council members.

I think there are many lessons that we can learn from what has happened here over the last few weeks, and I look forward to us doing that, and I just wanted to express my thanks to -- a testing but collegial exchange. Thank you.

CHAIRMAN GUYAS: Thanks, Kai. You were breaking up a little bit for me, but I think I get the gist of what you were saying, and, yes, I think everybody recognizes the huge effort that the Great Red Snapper Count team put forth in this effort, because that was a long review and SSC meeting, and everybody was really impressed with a lot of the Great Red Snapper Count team members that spoke about their work, the reviewers, the SSC members, and so thank you all, and thank you, Kai, for -- I don't know what

that is. All right. We're having sound issues. Carrie or Tom, are you guys --

DR. FRAZER: We're experiencing some sound challenges at the moment. Let's just sit tight for just a second, and let's see if we can get this squared away. Is that all right? In fact, why don't we just take a five-minute break, and don't hang up or anything, but just sit on the line, okay?

CHAIRMAN GUYAS: Sounds great.

(Whereupon, a brief recess was taken.)

CHAIRMAN GUYAS: Let's give it another try, and let's move on to the next item on our list under this Item VII, and so I think that is going to be public comment. Do we have Emily on the line?

PUBLIC COMMENT

MS. EMILY MUEHLSTEIN: We sure do. Thank you, Madam Chair. Council members and members of the public, if you would like to look at the full text of the comments that we received, under the meeting materials, they would be found in Tab B, Number 7(c).

I just want to give you guys a quick review of sort of what happened here and how we tried to gather comment. As you know, the SSC reviewed the interim analysis, as well as the Great Red Snapper Count, two weeks ago. Last week, on Thursday, we finished writing the document and published it immediately, and then, on Friday morning, we published sort of blog notice and pushed it out on social media to let the public know that the materials were up on line, and we sort of briefly explained what was being considered.

We did get 166 views of that blog that we posted, and we also got 1,600 views on Facebook of the shared post, and then, today alone, we had 700 engagements on Facebook, and we gathered sixty-eight comments on Facebook. As you know, that does not constitute a public record, but, those of you that do have Facebook, if you sort of want to look at some of the public sentiment that's bouncing around, it might be useful.

I sort of primed this because I want you guys to sort of recognize that we only received seven official comments that are added into the comment record for this, and we recognize that the timeline was really tight for everybody, staff, and mostly

also for the public, right, because we sort of gave them from Friday until Monday at noon, and so it was sort of an over-the-weekend call for comments.

I don't think that the number of comments we received is an accurate reflection of the number of feelings and thoughts that people in the public do have about this issue, but I will go ahead and summarize the seven public comments that we did receive.

First, we heard that underfishing snapper has done more harm than good and that snapper are ravenous and dominant and that it's not unusual to release over a hundred snapper in one hour, and other species like amberjack and grouper are suffering because of it.

We heard that the Great Red Snapper Count should be the basis for all snapper decisions, beginning immediately, for the 2021 fishing season. We also heard that the council should use the data provided by the Great Red Snapper Count to correct the flawed NOAA data and allow reasonable fishing seasons, especially in the wake of COVID-19.

Next, we heard that calling the results of the Great Red Snapper Count final is premature and that the SSC peer review shows that uncertainty is greater than reported and requires revisions to the study and its conclusions. At this point, the rush to use the Great Red Snapper Count for management has eroded faith in management, caused confusion, and put undue pressure on the SSC, and the SSC should be commended for taking the precautionary approach, because of the uncertainty and conflicting abundance reported in the interim analysis and since red snapper is undergoing overfishing and in a rebuilding plan. Moreover, catch levels cannot be increased unless state and federal data calibration issues are addressed.

We also heard support for the SSC's decision and incorporation of the final report into a full stock assessment. This precautionary approach to ABC setting will provide long-term access to all fishermen.

We have received two sort of form letters that were sent into our office. Fifty-four letters came from commercial fishermen in the eastern Gulf that explained that, when allocation was not awarded to fishermen in the eastern Gulf, and now that the stock has come back to a healthy level, but the concentration of allocation remains in the western Gulf, this creates a situation where eastern Gulf fishermen have to buy the right to harvest

red snapper from western Gulf fishermen, and those fifty-four fishermen that signed the letter are asking for any quota increases that come as a result of the Great Red Snapper Count to be distributed to eastern Gulf commercial fishermen.

We received a second letter from sixty-nine fishermen, and they were from the eastern Gulf, and their letter asked that any increases in the red snapper annual catch limit that comes from incorporating the Great Red Snapper Count into best available scientific information should be used to implement an eastern Gulf red snapper discard reduction program.

The letter, which is linked on the comment record, outlines the proposed program and explains the benefit of such a program, including reduction in discards, increase in profitability, and better utilization of the resource, and also creation of new pathways of entry into fishery, and so that summarizes what we heard from our public in that very short window that they had to give us comments.

CHAIRMAN GUYAS: Thanks, Emily. I appreciate that, and all the explanation, and really all you all have done to try to get some feedback in a very short amount of time. I am looking to see if there are any hands, and I don't see any at this point, and so let's go ahead and move into the document, which is Tab B, Number 7(d), and it looks like Dr. Froeschke is going to take us through that.

DOCUMENT AND DISCUSSION

DR. JOHN FROESCHKE: Yes. While they're getting this pulled up, just to kind of give you guys a timeline of this, as you know, it's been -- We began working on this in response to a motion at the January meeting, and, once we got the ABC and OFL recommendations from the SSC, we developed the document on an accelerated timeline, if you will, and made it available to the council in the briefing materials late last week.

We have developed Chapters 1 through 3, and this was noticed for final action, in the event that final action was recommended at Full Council, and there would be some additional NEPA work in the Chapter 4, et cetera, that would need to be completed before the document could be transmitted.

If you could bring this up, I will just go through a couple of things quickly. If you could go to Table -- I believe it's 1.1.1, and, again, this document, just for clarity, is to consider making changes to the red snapper catch advice based on

the results and recommendations of the SSC at their March meeting, and this would consider an alternative that would raise the OFL and ABC and would affect all sectors and components.

Table 1.1.1, just to give you a brief synopsis, the current management advice is based on a three-year constant catch recommendation. In that lowest row, the 2019 through 2021, the OFL is currently 15.5 million pounds whole weight, in CHTS units, and the ABC is 15.1 million pounds whole weight, in CHTS units.

If you go to Table 1.3.1, and I won't spend any time on this, but there is a table of the best estimate of the historical landings for the fishery, going back quite a few years, from 1986 through 2019. 2019 is not finalized yet, but it should be very close to what the final landings are going to be, and so that is available there.

If you go to the purpose and need, Section 1.4, the purpose is to modify the Gulf red snapper catch limits, including the OFL, ABC, sector ACLs, and sector ACTs, based on the interim analysis completed by the Science Center.

The need for this action is to use the best scientific information to prevent overfishing, while achieving optimum yield consistent with the red snapper rebuilding plan and the requirements of the Magnuson-Stevens Fishery Conservation and Management Act. Again, this is the first time you've seen this document, and I will stop there, if there are any questions on what I have presented so far. If not, we can go to Chapter 2.

CHAIRMAN GUYAS: Let me just do a quick scan for hands. I do not see any, and so I think you're safe to move on.

DR. FROESCHKE: Okay. Thank you, Madam Chair. This document is a single action, and it considers modification of the Gulf of Mexico red snapper catch limits, and there are two alternatives. Alternative 1 is the no action, and then Alternative 2 would implement the recommendations based on the SSC's meeting last week, and so, if you scroll to Alternative 1, I just want to walk you through the tables, primarily, because Alternative 2 builds on this.

There is nothing new in here, and so, essentially, we continue the current management and harvest limits. I have put this table in the document such that you could see the OFL values, and ABC, et cetera, and then the column on the right shows the calculation that was used to compute it, and so everything is

based on the OFL, and the ABC is reduced 2.581 percent, and this was based on the review of SEDAR 52.

The ACL is equal to the ABC, and so there's no reduction for the total ACL. The commercial ACL is related to the total, in that it's simply 51 percent of the total ABC and/or total ACL, and that's based on the allocation of the fishery. Likewise, it's 49 percent for the recreational.

As you know, the recreational is further split into the federal and private angling components, and the federal for-hire ACL comprises 42.3 percent of the 7.399-million-pound ABC, and then the private angling component comprises the 57.7, which is 4.269 million pounds. Then, from this component down, each of the states are apportioned a percentage of the private angling ACL that was derived in Amendment 50, and those percentages are reflected in the right column, under calculation for each corresponding row, and so that's nothing different.

If you scroll down to Alternative 2, you will see the same table. The only difference is that these same calculations are essentially -- Or the same allocations are made based on the recommendations from the Scientific and Statistical Committee last week. The difference -- If you look at the calculation for the ABC, you will see, instead of the two-point-five-percent-and-change buffer, now it's much larger, and it's 39.8 percent.

From there, the total ACL, again, is equal to the ABC, and all the other values correspond in the same way, and so each state just gets the same percentage, albeit from a slightly higher ABC, and so the poundages are slightly higher than Alternative 1.

Then, if you scroll down to the next -- There is one more table down there, and then we'll stop for questions. It's Table 2.1.1, and, essentially, what this does is, in the column on the right, it just summarizes the difference in the increase between Alternative 1, which is the no action, and the Alternative 2 for each management metric in here, and so, as you'll see, there's a large increase for the OFL, over ten million pounds, and there's a modest increase in the ABC, and then that cascades down, and so each state, or component, you can see what increase in their ACL they would expect if Alternative 2 was selected as preferred. I will stop there for questions.

CHAIRMAN GUYAS: All right. Thanks. Are there any questions for Dr. Froeschke? Mara.

MS. LEVY: Thank you. Not so much a question, but just a comment. I understand why the tables for the alternatives are not showing a private angling ACT, because, with state management, it's not really in use, but, I mean, I will note that there is still one on the books, because we have the part of state management that addresses default regulations if required, and so that would be -- That would be changed, consistent with whatever change in the catch limits happen. We may want to add that somewhere, but I don't want to confuse things when people are looking at it.

DR. FROESCHKE: As a follow-up, there is verbiage below the table and in the text to reflect that, and the reason we didn't add it is we were trying to avoid confusion, but fair point. Thank you.

CHAIRMAN GUYAS: All right. Thanks, Mara, and thanks, John.

DR. FROESCHKE: I have one other comment, if there's no questions.

CHAIRMAN GUYAS: Go ahead.

DR. FROESCHKE: Just one other thing to keep in mind is that the values that are on the screen are based solely on the SSC's recommendation. As I'm sure you're all aware, there is a related action that Mr. Rindone will be going through to consider calibration, potentially. This does not reflect those calibrations, and so, in the event that the calibrations or buffers or what have you are considered for the private angling ACL, those numbers would be further modified, and we will be presenting those in the next document.

CHAIRMAN GUYAS: Good point. All right. Thanks for bringing that up. All right. I'm seeing some hands go up now. Kevin.

MR. ANSON: Thank you, Madam Chair. I don't have any questions. I was going to offer a motion, if that's appropriate, or, if you want to answer questions first, I can wait.

CHAIRMAN GUYAS: Well, I don't see a lot of questions, and so this is a document up for potentially final action today, and so I think a motion would be appropriate. Go right ahead.

MR. ANSON: All right. I did not send the motion to staff. It's relatively short, but I will read it. **The motion is to add a new alternative, Alternative 3, which would be to modify the red snapper OFL based on the OFL from the Scientific and**

Statistical Committee during their March/April 2021 meeting and retain the current ABC of 15.1 million pounds.

EXECUTIVE DIRECTOR SIMMONS: Mr. Anson, can you slow down and read that one more time?

MR. ANSON: Certainly. **Add a new alternative, which would be Alternative 3, to modify the red snapper OFL based on the OFL from the SSC's March/April 2021 meeting and retain the current ABC of 15.1 million pounds.**

CHAIRMAN GUYAS: Okay. I think we've got it on the board now. I'm going to read it, and then we'll shop it out for a second. The motion is to add a new Alternative 3 to modify the red snapper overfishing limit based on the overfishing limit from the SSC's March/April 2021 meeting and regain the current ABC of 15.1 million pounds. Kevin, I think that's what you said. Is there a second for this motion? Going once. If you would like to second it, just shout it out.

MR. WILLIAMSON: I will second, for discussion.

CHAIRMAN GUYAS: Okay. It's seconded by Troy Williamson. Kevin, do you want to provide some rationale, before we start going to hands?

MR. ANSON: Certainly. We had, obviously, lots of conversation today, and there was lots of conversation during the SSC meeting, and Dr. Lorenzen, I think, did an excellent job of providing some information as to how the meeting was set up, and it was a little rushed. Again, kudos to everybody involved for doing the work, and that's all the preparation on the Science Center, and all the folks in the SSC meeting, and all the interviewers, and all the council staff.

It was a herculean effort, and I do applaud everyone for going through the exercise, and I do appreciate that there was some acknowledgment of the increase in our understanding of red snapper, and that increase in understanding relates to a dramatic increase in the abundance of red snapper in the Gulf of Mexico, and so I think that's important for us, as managers, as we look ahead, and not only look ahead to the next agenda item, but we look ahead to the immediate future and look out a few years.

Trying to get there, and get us to a point where everybody feels comfortable about the science, and everybody feels comfortable about how the science generated numbers and how much uncertainty

there is. As was mentioned, we're still waiting on final edits to the Great Red Snapper report, and they haven't even come in yet, and so that question is set yet unresolved.

I think there is some opportunity there for us to try to proceed with caution in the next several years, and I will be speaking to that in the next section, but, at least in this regard, recognizing that the Great Red Snapper Count had high abundance, that's what this motion attempts to do, is to recognize that and utilize that for management.

Then the second part of the motion deals with the ABC, which pertains more directly to our job as council members, is to determine how we access the fish that the SSC determines are available, and so this number, as people will note, is slightly less than what came out of the SSC meeting, and so there's lots of questions yet remaining as to how the fishery is prosecuted.

There is lots of questions as to the methods and surveys being used to determine the level of prosecution on the resource, and there are still lots of questions there yet to be resolved, and there's some questions, in my mind at least, and, unfortunately, there was not time yesterday, as to how dead discards are accounted for in the two sectors relative to monitoring catch or harvest.

That might cause certain sectors to increase their harvest, and so this is an opportunity to try to utilize that additional pounds that came out of the March/April meeting, to try to use as a, quote, unquote, buffer for that, and I realize that, according to information that was provided relative to the 2019 information that NOAA calculated, using calibrated landings for the state surveys, that we exceeded the previous OFL, and so I am going to argue --

It's no secret to anyone, and I'm going to argue that we continue that in the next discussion, or agenda item, and so, in preparation of that, again, trying to recognize and take advantage for us, management-wise, of the additional pounds, as we have that available, and, yet, there's still some questions on the scientific side of the house, as to the uncertainties related to that and the uncertainties related to some of the data collection activities that we have to monitor harvest, and I tried to incorporate a little bit of a buffer.

Everybody remains status quo, and I know that may not be what everybody is looking for, but, in reality, all we were looking forward to split among the three groups of folks is 300,000

pounds, and so I don't think that would have made much of a difference, is my opinion, but that's my rationale, Madam Chair.

CHAIRMAN GUYAS: Okay. Thanks, Kevin. **I guess I will just suggest one clarification to the motion, just so it's super crystal clear what we're talking about with the OFL, is if we could put the poundage in there, which I think is 25.6 million pounds.**

MR. ANSON: Very good idea.

CHAIRMAN GUYAS: Okay. All right. Andy, your hand is raised. Go ahead.

MR. STRELCHECK: Thanks, Martha, and thanks, Kevin, for the explanation of your motion. I guess I will speak to kind of two parts of it. With regard to the OFL, given the new advice, obviously, from the SSC, it certainly makes sense that we would move forward and adopt that OFL in this action.

With regard to the ABC, I'm struggling, really, with your rationale, Kevin. I recognize that it's a modest increase, and it doesn't really provide the benefits that maybe many of us were hoping for with a catch limit increase, but it is something more than status quo, and, although there is certainly considerable uncertainty surrounding the Great Red Snapper Count and some of the estimates that will ultimately be derived from that, this is really a very modest increase, and it's something that I would expect would not have, obviously, a major detrimental effect on the stock if we increased the catch limit by 300,000 pounds, and so I would speak against kind of mixing the OFL and status quo ACL For this motion.

CHAIRMAN GUYAS: All right. Thanks, Andy. I am looking for more hands. Robin.

MR. RIECHERS: Kevin, this is to you, I guess, and it's hitting on a little bit of what Andy just said. It seems, to me, that the ABC has now been set, at least based on the past discussion we just had, by the SSC, and maybe it's just the wording in the motion, but are you really wanting to set an annual catch limit that is then 300,000 pounds below the ABC, continuing what is in effect the catch limit now? I am not certain how I'm going to vote on the motion today, or, if it moves into Full Council, how I would vote on it, but that's what I am seeing that you're trying to attempt to do here, since the ABC is set by the SSC, as I recall that discussion a little bit ago.

CHAIRMAN GUYAS: Thanks, Robin. I think the SSC set the upper limit for what the council can consider for the ABC, but I think Kevin's motion is within bounds, because we can go lower, but we just can't go higher, if that helps.

MR. RIECHERS: Okay. Thanks. Yes, that does help.

CHAIRMAN GUYAS: I don't know if you want to chime in on that, Mara, but that's at least my understanding.

MS. LEVY: Martha, I think you're right.

CHAIRMAN GUYAS: Okay. Anybody else with a question or a comment? I am not seeing any, and so I guess we can vote. Let's try a voice vote. I have a feeling that's going to break down, but let me ask this. Is there any opposition to this motion?

(There are multiple yes's on the audio.)

CHAIRMAN GUYAS: In that case, let's go ahead and do a roll call, just so that we're clear where we're at.

EXECUTIVE DIRECTOR SIMMONS: Thank you. Mr. Riechers.

MR. RIECHERS: No.

EXECUTIVE DIRECTOR SIMMONS: Mr. Banks.

MR. BANKS: No.

EXECUTIVE DIRECTOR SIMMONS: Dr. Stunz.

DR. STUNZ: No.

EXECUTIVE DIRECTOR SIMMONS: Mr. Swindell.

MR. SWINDELL: No.

EXECUTIVE DIRECTOR SIMMONS: Dr. Shipp is absent, I believe. Mr. Diaz.

MR. DIAZ: No.

EXECUTIVE DIRECTOR SIMMONS: Mr. Anson.

MR. ANSON: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Dugas.

MR. DUGAS: No.

EXECUTIVE DIRECTOR SIMMONS: Ms. Bosarge.

MS. BOSARGE: No.

EXECUTIVE DIRECTOR SIMMONS: Mr. Dyskow.

MR. DYSKOW: No.

EXECUTIVE DIRECTOR SIMMONS: General Spraggins.

GENERAL JOE SPRAGGINS: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Williamson.

MR. WILLIAMSON: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Sanchez.

MR. SANCHEZ: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Strelcheck.

MR. STRELCHECK: No.

EXECUTIVE DIRECTOR SIMMONS: Ms. Boggs.

MS. BOGGS: No.

EXECUTIVE DIRECTOR SIMMONS: **The motion fails four to ten.** Madam Chair.

CHAIRMAN GUYAS: Thanks, Carrie. Okay. This is potentially final action for this council meeting, and so, at this point, if there's anybody who would like to offer a different motion, I would be happy to accept that at this time. Dale.

MR. DIAZ: Thank you, Madam Chair. **I will make a motion that we make Alternative 2 the preferred alternative.**

CHAIRMAN GUYAS: Okay. Great. Let's get that on the board. We have a motion for Alternative 2 as the preferred alternative. Now that we've got that on the board, is there a second to this motion?

MR. STRELCHECK: Martha, I will second it.

CHAIRMAN GUYAS: Thanks, Andy. Okay. Dale, do you want to speak to this?

MR. DIAZ: Sure. I will give it a try. Leading up to this meeting, it's not really where I thought we were going to be. We had a lot of discussion, earlier in the day, and I'm not going to try to rehash all of that, and I think this is -- Out of options we have before us -- Neither one of the options are really very appealing, and this is the best of the two options. I know there's a lot of user groups that had higher hopes for more access to the fishery, and I would like to offer them the Alternative 2, which gives them the most that we have available to us. Thank you, Ms. Guyas.

CHAIRMAN GUYAS: All right. Thank you, Mr. Diaz. I am looking for any other questions or comments on this motion. I think it's pretty straightforward. I think we all, at this point, know the numbers that we are looking at here, based on this morning's and this afternoon's discussion, but I will just do one more look for hands, and I don't see any, and so let's just -- I am going to assume that everybody is ready to vote, and so let's just do a roll call on this vote. well, I will try it. We'll try a voice vote. Is there any opposition to this motion?

(There are multiple yes's on the audio.)

CHAIRMAN GUYAS: Okay. Then let's do a roll call vote on this as well.

EXECUTIVE DIRECTOR SIMMONS: Thank you, Madam Chair. Ms. Bosarge.

MS. BOSARGE: Yes.

EXECUTIVE DIRECTOR SIMMONS: General Spraggins.

GENERAL SPRAGGINS: Yes.

EXECUTIVE DIRECTOR SIMMONS: Dr. Stunz.

DR. STUNZ: No.

EXECUTIVE DIRECTOR SIMMONS: Mr. Banks.

MR. BANKS: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Strelcheck.

MR. STRELCHECK: Yes.

EXECUTIVE DIRECTOR SIMMONS: Ms. Boggs.

MS. BOGGS: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Diaz.

MR. DIAZ: Yes.

EXECUTIVE DIRECTOR SIMMONS: Dr. Shipp is absent. Mr. Anson.

MR. ANSON: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Riechers.

MR. RIECHERS: No.

EXECUTIVE DIRECTOR SIMMONS: Mr. Dyskow.

MR. DYSKOW: No.

EXECUTIVE DIRECTOR SIMMONS: Mr. Swindell.

MR. SWINDELL: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Dugas.

MR. DUGAS: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Sanchez.

MR. SANCHEZ: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Williamson.

MR. WILLIAMSON: No.

EXECUTIVE DIRECTOR SIMMONS: The motion carries ten to four with two abstentions and one absent. Madam Chair.

CHAIRMAN GUYAS: Thanks, Carrie. All right. We do have some codified text, although are we ready to review that at this point? I am just trying to flip through it right now.

DR. FROESCHKE: It's available, but it's going to be fairly

general until we incorporate the preferred alternative.

CHAIRMAN GUYAS: Okay. In that case we'll wait to look at codified text at least until Full Council, so we can see what the potentially final language looks like at that point. Since this is potentially a final action item, if the committee would like at this point, I think it would be appropriate to potentially send a motion to the council recommending final action here, and maybe just leave out that codified text language at this point, and so I will just kind of put that out there as an option for the committee, and it looks like staff may be trying to pull that language, to make it easier on whoever would like to make that motion, if anyone.

It looks like it's crickets at this point, which is okay, and we can certainly handle this in Full Council, if that's where you all want to go. I am checking one more time for hands. Are there any other questions or comments on this document, or, John, is there anything else that we need to cover relative to this document before Full Council?

DR. FROESCHKE: Nothing additional for me at this time. Thank you.

CHAIRMAN GUYAS: Okay. All right then. Mr. Chair, it looks like we're scheduled for a break in about twelve minutes. Do you want to break now, or do you want to at least start calibration first? I would maybe suggest that we take a break first.

DR. FRAZER: I think what we'll do -- I'm going to try to make the most of our time, and perhaps I will let Ms. Muehlstein give her presentation first, and then we'll take a break.

CHAIRMAN GUYAS: Okay. That sounds good.

FINAL ACTION: FRAMEWORK ACTION: GULF OF MEXICO RED SNAPPER RECREATIONAL DATA CALIBRATION AND RECREATIONAL CATCH LIMITS PRESENTATION

MS. MUEHLSTEIN: Okay. Thank you. As Bernie pulls this presentation up, I just wanted to give you guys a little bit of rationale here and talk about what we're doing. Since we're going through this red snapper calibration process, as you know, sort of as an internal audience, which is a really complicated process, and it's a really hard one to explain, and so, with the help of Dr. Ava Lasseter, we have come up with this quick PowerPoint that is hopefully going to sort of give everyone,

council members as well as our fishing audience that's listening, just sort of a brief primer on this calibration and what we're doing.

Hopefully I'm the appropriate person to give this presentation, since I'm not a statistician, and, in order to sort of figure out the document and what we're doing, I had to actually learn a little bit about currency exchange, and so bear with me if this is elementary. It is on purpose.

We are looking at calibrating, or, in other words, sort of exchanging currencies between different data collection programs, and, in order to sort of explain what that means, I think the best thing for us to do is talk money, and so we're thinking about, if you were going to travel to another country, and you have U.S. dollars, but you wanted to go somewhere else, and you wanted to have money in whatever denomination that they were using.

You know that it would be very rare that your U.S. dollars would be dollar-for-dollar the same value as the currency of wherever you were traveling, and so, for example, if we had U.S. dollars, since we are in the United States, we would use this equation, and your own currency, the one you're starting with, Currency 1, would always be sort of at the bottom on this.

Let's say you're going to Europe, and so, if you were going to Europe, and you had U.S. dollars, you would need to figure out the exchange rate between U.S. dollars and euros, in order to make sure that the money you had was of equal value in the money that you were buying.

Right now, the exchange rates from U.S. dollars to euros is 0.836, and so, if had ten U.S. dollars, and I wanted to purchase euros with it, I would end up with 8.36 euros. If we were in Europe, and we had a good time, but it was time to come home, and we happened to have some money left over that we wanted to exchange back to U.S. dollars, the exchange rate is not the same, and it's actually the inverse, and so what you will see here is that the exchange rate between euros and U.S. dollars is 1.196, rather than what we had just used, and so, if I had that same 8.36 euros in my pocket when I was leaving from travels, and I wanted to exchange it back to U.S. dollars, I would multiply it by 1.196, and there we would go, and I would have the same value in U.S. money back.

This exchange rate and these data currencies are very similar to what we're attempting to do in this document. The CHTS, the

MRIP-CHTS, and each state measures their harvest differently, and so we're going to need an exchange rate in order to compare systems. Now, this doesn't change the values of either one of the systems, the landings from system, but it just makes it so that we're speaking in the same language.

Also, these calibration ratios that we've been talking about are exchange rates, and it's exactly what an exchange rate is, and it's sort of a number that we're using to make sure that we can convert our different data currencies into the same language. Since CHTS is how we're setting our annual catch limits for red snapper, we're going to sort of use that like it is U.S. dollars, and what we need to do is find a calibration ratio, or exchange rate, for each one of the state data collection programs, to make sure that we're using the same currency.

One of the things that you're going to see, as we look through this document, is predicted landings, and what I want to do here is make sure that you understand the way that this was done and sort of how we're looking at this working.

If we set -- I'm going to use Alabama as an example. In CHTS, we set the Alabama sort of state allocation at one-million-and-some-change in CHTS currency. Now, what we presume has been happening is that, in Alabama Snapper Check, we've been landing that same number, but it's in a different currency, and so, in order to arrive at what that would actually be when we converted it back into CHTS, we have to divide it by our exchange rate.

What you end up with is, rather than using the same number in two different currencies, it's we're getting our predicted landings by taking that number in Alabama Snapper Check currency and dividing it by the exchange rate for CHTS to Alabama Snapper Check.

Then the next thing that I want to address is what happens when you're trying to calibrate multiple currencies. As we know, each one of the currencies has its own exchange rate between itself and the other ones, and so we can't sum the units from different currencies. It just doesn't correspond to the sum of the units in a single currency, and I will walk you through what I mean by that.

If we're starting with ten U.S. dollars, and we want to convert it to euros, like we had talked about, we end up with ten U.S. dollars, and we convert it to euros, and we end up with 8.36 euros. Well, if we also take another $10, and we decide to convert it to yen, we would end up with 1,086 yen. Now, what we

cannot do is simply add those two together, the euros and the yen, and come up with some total. It would be a meaningless total, and so adding that 1,086 yen with 8.36 euros does not actually add up to this number that we're calling 1,094.36, and that is sort of a meaningless number.

Since it's a meaningless number, what you can't do is then subdivide that number back, and let's say we decided to divide it in half, and so we would have 547 euros and 547 yen, and what you will see is that's not going to equal the initial $20 that you started with, right, or the $10 that you bought euros in and the $10 that you bought yen in.

When we are going through the document, you are going to see that there is a sum of five different currencies everywhere, and we have tried to sort of hashmark that out, or gray that out, to help you understand that adding up different currencies and coming up with some number doesn't have valid units, and so it's not actually a valid number, and that we are only displaying that for comparison purposes.

Sort of the idea of adding them all up, the units, and then dividing them back and having them be meaningful is something that is addressed in one of the alternatives, and so I just wanted to sort of walk through that example, so that everybody sort of recognizes that you can't work with the currencies unless they're all exchanged into the same denomination.

This slide simply shows that the calibration ratios, or the exchange rates, are for each of the state data collection programs, in comparison to the CHTS. I think most of you guys have seen these ratios before, but just for simplification's sake, and then the next slide will show you sort of just a summation of what we're about to look at in the document, and it will show you --

What we've done here is tried to break it down so you can see the currency in CHTS, and you'll see that in the blue column, and then we also have those columns that I mentioned, where we're going to add up the sums of all the different currencies, and we end up with a number, but that number is really only for comparison purposes, and it's not a useful number.

What you can see here is I'm actually using an outline of each state to represent that that is in the state currency, and so think of that like a dollar sign, but it's an Alabama dollar sign, or a Florida dollar sign, and so I just wanted to sort of put this table out there, to make sure that you guys have that

to think about as we are going through the document. With that, it just sort of concludes my overview, and hopefully our sort of primer on what we're about to get into after break.

CHAIRMAN GUYAS: Thanks, Emily. I think that was helpful, but I think, at this point, let's take our break. Then, when we come back, we can go into questions.

DR. FRAZER: So we'll return at 4:15.

(Whereupon, a brief recess was taken.)

CHAIRMAN GUYAS: Are we ready to roll?

MR. RINDONE: Bring us in for a landing.

CHAIRMAN GUYAS: I will try.

MR. RINDONE: Please put your tray tables and seatbacks in the upright and locked position. All right. This is -- Obviously, this all pertains to our final action for the framework action for Gulf red snapper recreational data calibration and catch limits. Emily did a great job on that presentation, and, Emily, do you want to go through the public comment before we get into the document?

PUBLIC COMMENT

MS. MUEHLSTEIN: I would be delighted to. If you would like to read the full text of the comments that we received on this, you can look for Tab B, Number 8(c). We have been collecting comments for this for over a year now, and so we did end up having sixty-four comments.

We did publish a public hearing video, early last week, and that video has had 135 views. I am going to go ahead and summarize these comments sort of in the best way that I know how, and I'm going to kind of break it up, and I will walk you through that.

We received a number of different comments that just gave general support for action here, and I will give you some of the rationale that was provided. We heard that the council should make the appropriate ACL adjustments to make sure that red snapper overharvest does not happen in the recreational sector.

We heard that Texas should be held to the same standard as the other states, for the sake of fairness and the future of the fishery, and we heard that calibration must be addressed

immediately, to ensure that Amendment 50, state management, complies with the Magnuson Act. We heard that, without calibration and comparison of state survey landings with an MRIP-based ACL, it would be statistically indefensible.

We heard that, if calibrations are not addressed until the next stock assessment, that the private angling sector could harvest three million pounds over the ACL, which would result in declines in stock biomass, especially in the eastern Gulf.

We heard that calibrating now is the best way to reduce the severity of paybacks later and that Amendment 50 requires each state to pay back overages in the following fishing year. Arguably, 2021 payback for overages in 2020 should use calibrated numbers, and, the longer this is delayed, the harsher the required paybacks are likely to become.

We heard that the council should request that National Marine Fisheries Service issue a temporary rule to calibrate the ACLs immediately. We heard that data discrepancies related to in-season monitor require immediate attention, and resolving the issue in a timely manner would help prevent further conflict among stakeholders.

We heard that allocating each state a portion of the private recreational red snapper ACL, using federally-collected data, while still using state data collection to monitor in-season harvest, would likely lead to systematic underreporting of harvest, if they are not calibrated to a common currency.

We heard that the lack of calibration to state survey landings has caused red snapper to undergo overfishing for the first time in over a decade. We heard that common currency is a big issue for many aspects of the fishery and that it has implications for all stakeholder groups. Ignoring the issue cannot be an approach to continue taking.

We heard that greater biomass found in the Great Red Snapper Count does not solve the common currency issue. We heard that the council should move forward to finalize the framework to prevent recreational overages. We heard that overfishing the ACL, due to a lack of calibration, impacts all sectors and the for-hire and commercial sectors should not be penalized.

We heard serious concerns over the continued lack of restraint provided by the states on private recreational harvest, and there was concern about the reduction of quota in the commercial fishery due to constant overfishing from the recreational

sector.

We also heard that time is running out to take action on the issue before the 2021 fishing season, and we heard that the council must take final action in this meeting in order to address overages due to a lack of common currency and to correct flaws with Amendment 50 that allows states to violate MSA.

We did hear specific support for Alternative 2 in the document, which would use the calibration ratios, and we were told that we should apply the NOAA Office of Science and Technology simple ratio calibrations to the 2020 season and publish all reporting information on a central location on the National Marine Fisheries website in order to support state management of red snapper.

We heard that each survey has its own strengths and biases. If the states continue to use their own programs, the state data should be calibrated to match the federal currency or the federal currency should be calibrated to the state currency, to make sure that the ACL is not being exceeded.

We also heard that the council and National Marine Fisheries Service should develop a process for implementing and revising calibrations on a regular basis. We also heard quite a bit of support for a no action alternative in this document, and I will give you some of the rationale provided there.

We heard that MRIP was not designed to manage in-season monitoring and was clearly flawed and not widely accepted. Calibrating warps legitimate state data programs to fit an agenda to disallow recreational harvest. This framework should be abandoned, or Alternative 1 should be selected.

We heard that the council has not considered a shred of scientific evidence that does not support the commercial fishing agenda and that the rules have caused tremendous environmental turmoil and imbalance. We heard that red snapper are the only fish that you can catch off a rig, they're everywhere, and restricting a small number of recreational fishermen occasional harvest is disgusting.

We heard that we should keep the state management plan, because the federal system is flawed. We heard that recreational fishermen should be allowed to catch 50 percent of the snapper, and commercial fishermen should not be favored. We heard that NOAA should not be allowed to make up whatever calibration changes they want to penalize anglers for the season that has

already taken place and that Amendment 50 was supposed to give states control, but NOAA continues to implement bad science to ruin recreational red snapper fishing.

We heard that state management is working, and so we should leave it alone. We heard that recreational fishing seasons should not be reduced. Wrecks are covered with red snapper, and the states should have control over harvest.

We heard that state-collected data is correct. Since the council prides itself on using the most recent and accurate science available, it's time to do that now. We heard that calibration needs to be vetted more thoroughly and that states with better data reporting systems should not be penalized.

We heard that calibrating now, before the results of the Great Red Snapper Count are fully integrated, would be punitive to anglers for no reason. We heard that reducing the allocation of red snapper available to Mississippi recreational fishermen is absurd. The population is healthier than ever.

We heard that action on converting state data to MRIP should be delayed until the Great Red Snapper Count can be incorporated into the stock assessment. We were asked to adhere to National Standard 6 and not penalize fishermen based on inaccurate data and to transition to a new data program. Reducing recreational seasons would cause a derby and negatively impact the economy.

We heard that it is in the best interest of the states to ensure a viable recreational and commercial fishing industry, and so we do not need to fix what isn't broken, and we also heard that the MRIP numbers do not accurately reflect the snapper population and that management of the resource should remain with the states.

We also heard some general comment that was not necessarily related to the calibration of the data collection programs, and we did hear that the fishery is more healthy than ever and that recreational anglers should have longer seasons. We heard that the red snapper stock has never been better and that fishing pressure has never been higher. The days of open harvest are over, and every resident should be given an annual tag or allotment, so that anglers can choose when they want to fish throughout the year.

We heard that anglers used to catch a variety of species, but are now catching only red snapper, because they have pushed all other species, and a zero-day season is ridiculous.

We heard a system that protects the larger fish, which produce a lot of eggs, would be useful. Maybe the council should create a slot limit of fifteen to twenty-two inches, with an allowance for one oversized fish per person, and, finally, we heard that the daily limit should increase to four fish per day, and that concludes my summary of the comment that we heard.

CHAIRMAN GUYAS: All right. Thanks, Ms. Muehlstein. Are there any questions for Emily, either on the public comment or on her calibration presentation? Let me give folks just a minute. I am not seeing any hands, and so I think we can move on. Thanks, Emily.

MR. RINDONE: Are you ready for me to go through the document?

CHAIRMAN GUYAS: I think so.

DOCUMENT AND DISCUSSION

MR. RINDONE: The codified text that's available for you guys to review right now is basically just the current codified text, because there's not a preferred alternative, at present, for this framework action.

We'll go to Chapter 2, and so we only have one action in here that would set modifications to the Gulf state-specific red snapper private angling component annual catch limits. As Emily talked about in her presentation about how the state currencies are not additive, that's something to keep in mind here, and we will be cleaning the alternatives, and mostly just the tables, up, to make sure that that's well represented here, and so to reduce any potential confusion.

At the last meeting, you guys added a couple of alternatives, Alternatives 4 and 5, and, as we go through the discussion, we've included some tables in here to detail essentially what the predicted landings would be under each of the alternatives, and so, here, for Table 2.1.1, you can see that, if we do nothing, the expectation would be that there would be an overharvest for the private angling component of almost 1.3 million pounds.

Alternative 3 would use the calibration ratios that were developed by the NOAA Office of Science and Technology and the Gulf states and recommended by the council's SSC, and these are shown in 2.1.2.

Like Emily said, these are different currencies, right, and so yen and euros and Australian dollars and everything else, and so that far-right column there -- We can't add those numbers up, because those are all being used by the states under their own data collection programs, but we do expect that, by using these ratio calibrations, that the states' landings would be able to be constrained to the ACL, as described in that common currency of MRIP-CHTS, which I guess we could look at as dollars.

If you scroll on down to Alternative 3, this is one of three buffer alternatives, and so the Southeast Regional Office did some simulations to arrive at this 23 percent buffer to the total private angling component ACL that the simulations described as being sufficient for constraining the private angling harvest below the private angling component's total ACL.

It would do that by about 5,100, or 5,200, pounds there, and you can see, if you look at this table, essentially, how it shakes out for each individual state by having this buffer applied, but this is a 23 percent buffer that's applied across-the-board here.

If we go down to Alternative 4, and please, guys, just jump in and interrupt me, and I can stop at any point, but Alternative 4 has a lot of similarities to Alternative 4, in that it also starts with that 23 percent buffer, but Alternative 4 also has a couple of options for how to handle any increases in the ABC. Option 4a says that any increase to the ABC, or, in Option 4b, any increase in at least 25 percent, would see the ratio calibrations that are shown in Alternative 2 used to correct those subsequent ABC increases as they apply to the private angling component for red snapper.

Lastly, Alternative 5, which was also proposed at the last meeting, would establish a state management ACL that uses an 11.819 percent buffer against the total private angling component's ACL. In this alternative, it took the difference between the combined state-specific ACLs and the MRIP-CHTS data currency and the combined state-specific ACLs, after applying the ratio calibrations from Alternative 2, and then it applied that 11.819 percent different uniformly, as a buffer, across-the-board, and, again, just a reminder here that the sum of the state-specific ACLs, after calibration in Alternative 2, those are not additive.

If we scroll down to Table 2.1.4, we can see how, under Alternative 5, we would still predict that the landings resulting from this alternative would exceed the private angling

component's ACL, and so, if we go down to the last table, which is 2.1.5, this table shows, essentially, how everything shakes out in terms of the predicted landings in MRIP-CHTS currency for each of the alternatives.

The way that this shakes out right now is that, under Alternatives 1 and 5, we would still expect an overage to occur, which makes both of those alternatives not viable, and then, under Alternatives 2, 3, and 4, we would expect that the landings would be constrained to or just below the private angling component ACL. Madam Chair.

CHAIRMAN GUYAS: All right. Thanks, Ryan. Are there any questions for Ryan about these tables or any of the alternatives in this action? I am not seeing any questions. Dare I ask if anyone is interested in putting forward a motion for a preferred alternative? Leann, I see your hand.

MS. BOSARGE: Well, I am certainly not putting out a motion for a preferred, but I did have a question about the document, if there's time for that, Madam Chair.

CHAIRMAN GUYAS: Yes, please.

MS. BOSARGE: Okay. Can we scroll to page 26? I thought I would ask this before we get too deep in the discussion that probably won't have anything to do with this. This was a new section that we've been adding to our documents recently, and it's back in the Chapter 3 stuff, and I just had a question, because I remember that year, 2017, and so pretty much the paragraph talks about what happened in 2017, which that was that year that the Secretary of Commerce extended the recreational season, and so we had like, I think, a forty-two-day season or something like that, instead of three days.

It talked about what was landed that year and how it did exceed the OFL, and then it talks about, however, based on the SEDAR 52 reference point projections, the overfishing didn't occur, and it kind of goes into why that is. We had some big recruitment that came in, and that kind of outweighed some things, and so I sort of understand that.

What I wasn't aware of is kind of the paragraph above it, and so, if you scroll up to the page right before that, it talked about this definition of "overfishing", and so, if we hone-in on that sentence where it says -- It's the third sentence at the bottom of that page down there, under definition of "overfishing". In years where there is a stock assessment,

"overfishing" is defined as the fishing mortality rate exceeding the MFMT, the maximum fishing mortality threshold.

In years where there is no stock assessment, overfishing is defined as the catch exceeding the overfishing limit, the OFL, which is, as we just went through in the last document, that's what is set by our SSC. The SEDAR 52 that we did, the terminal year for that assessment was 2016, I think, and I'm pretty sure that it assessed 2014, 2015, and 2016, and so it did not assess 2017.

Based on that definition that I think we have to use, the OFL that was on the books for 2017 and the landings that we had in 2017 to determine if overfishing occurred, and, if you look at what that was, which is in the next paragraph, we landed -- Well, 15.65 million pounds is what we landed, and the OFL was 14.79, and so we did exceed it.

I don't know, and this is kind of new in our document, and so I just wanted to talk about it, and we hadn't really talked about that year in a while, and I know we had some projections that were run, but I don't think that was really fleshed out with the definition of overfishing, and I'm not sure we can use those, and so I thought I would bring it up for discussion.

CHAIRMAN GUYAS: Thanks, Leann. I see Andy's hand up, and I suspect that he would like to respond to that.

MR. STRELCHECK: Actually, I was not going to respond to that, but I do want you to bear with me, because I have a number of points that I want to make. First and foremost, I know many of you are probably thinking this is not the position that we wanted to be in, and some of you might think otherwise.

We have waited now for a number of meetings to take final action on calibration, with the hope that the Great Red Snapper Count might offset some of the potential impact of this calibration. That, obviously, hasn't transpired, and so the position of the agency still remains much the same, which is we have well documented now, for quite some time, and not only discussed with the council, but worked with the states on their surveys, to emphasize the need for calibration, and this goes back to our MRIP program and calibrating when we made some APAIS changes and to when we approved state surveys and sent letters to each of the states in 2017 and 2018, indicating that calibration was required to be used for stock assessments and management.

We emphasized that in Amendment 50 and our rulemaking, and now

we, obviously, have been discussing this for a number of council meetings. The one thing that I did not hear Emily state, and maybe she did discuss it in her presentation, is kind of the why we're doing this, and I hear a lot of criticism about why are we trying to standardize relative to MRIP, or bad federal survey data, and that this is trying to fix a bureaucratic glitch.

I think we have, obviously, made it very clear that the intent here is we need to have comparable quotas across states, among states, since we're running five different survey programs, and we need to have surveys that are counting landings in the same units as the quotas, and we need to make sure, obviously, those quotas aren't exceeded.

All of those reasons have not changed in the timeframe that we've been working on this action, and so I certainly would encourage the council to take action during this meeting.

The one other thing that I will mention, which maybe relates a little bit to what Leann was saying, is we have lost several lawsuits over the last decade related to recreational management. 2017, obviously, was an increase in the fishing season length, and we as agency didn't even choose to defend that justification for setting the season longer. Back in 2014, we lost a lawsuit to the commercial industry, who sued related to allocation decisions, and part of the argument, at least in that lawsuit, was that the recreational sector had frequently exceeded their quotas and shouldn't benefit from any shift in the allocation.

There is a long history here, and I know it's a difficult decision, and there are impacts, obviously, to different states, or across all five states, depending on the preferred alternative we choose, and I would encourage the council to move forward with action. Thank you.

CHAIRMAN GUYAS: Thanks, Andy. I am going to ask what probably is going to sound like a fairly basic question, but I guess it's worth -- I guess it's worth the committee thinking about, given the position that we're in.

We may be in a position to have a significantly greater OFL, if we move forward with the previous action, and a moderately higher ABC, and so it's clear, if we go over the OFL, we are in an overfishing situation, and Magnuson dictates that the council then has to take action to correct that.

Can we talk about what happens when the ABC is exceeded? What

are the consequences of that, and I mean, I guess, legal consequences, other than potentially getting sued, biological consequences, et cetera, and I think it might be helpful to maybe put this in perspective a little bit and just kind of understand what we're working with here, and so maybe that's a question -- I guess it's a question to Andy or Mara, and then also to Clay, since you're on the science side of things. Don't all jump at once.

MR. STRELCHECK: I was waiting to see if Mara wanted to speak first, since it was a legal question.

MS. LEVY: I can speak, although, Martha, I missed part of what you were saying that related to the legal question. I know you were talking about the calibration and the other document that you potentially have to take final action on. Can you repeat --

CHAIRMAN GUYAS: What I'm trying to get at is, if we are looking at potentially having a significantly-higher OFL, and a moderately-higher ABC, what are the consequences -- It's clear what happens when the OFL is exceeded, right, what the consequences of that are, and what are the consequences of exceeding the ABC? That's the question that I'm asking, from multiple perspectives, whether that's legal, whether that's management measures that we then have to take, biological consequences, et cetera, et cetera, because I think that is relevant to where the council may go here.

MS. LEVY: Okay. Got it. From the legal perspective, I don't know that the consequence is related to exceeding the ABC. The issue is that the FMP, to be compliant with the Magnuson Act, has to have catch limits, which are not exceeded, and accountability that will ensure that happens.

Consistent exceedance of the ACL is a problem, from the ACL perspective, and there's also that special provision that relates to red snapper that requires a commercial and a recreational quota, and it requires a prohibition on fishing when the recreational quota is met, and, just because we have divided the recreational quota up more, it does not mean that that provision does not apply, and so exceeding the recreational quota has implications with respect to that provision, and we do have an established allocation.

One of the issues in the prior lawsuit was this idea of the de facto reallocation by allowing the recreational sector to consistently exceed its required quota, and so, from a legal perspective, that's a potential problem as well.

Just generally, the thing that I started out saying was the FMP needs to be in compliance with the Magnuson Act, and so, right now, we have an FMP that is not in complete compliance, and we have recognized, in the state management final rule, that compliance means we have to address those calibration issues, and so we just have an overall legal issue that is hanging over this FMP.

CHAIRMAN GUYAS: Okay. Thanks, Mara. I guess I would pose the same question maybe to Clay, from a scientific perspective.

DR. PORCH: If the OFL is to be believed, that it's in the right ballpark, the ABC is so much lower that it just depends on how much you would exceed the ABC by. I mean, if it's just a small amount, then there's not much chance of actually causing any major problem with the stock, and, as I said before, we have the potential to monitor it in not quite real time, but in months time, and so, if there's any particular problem, we should be able to detect it by January from the longline survey.

CHAIRMAN GUYAS: Okay. Thanks, Clay. Phil Dyskow.

MR. DYSKOW: Thank you, Madam Chair. I just want to follow-up on the coattails of what Clay was saying. The real issue that we're struggling with, right at this very moment, is that the Science Center, despite their best efforts, and it's a great group of people doing all the right things, but we have an OFL level that sort of makes sense, based on the Great Red Snapper data, but the ABC seems very conservative, simply because they were forced to make a decision in a compressed timeframe, and they acted very conservatively.

If the ABC was set correctly, or I shouldn't say correctly. If the ABC was set higher, we wouldn't be having this discussion right now, because we would have a way out of this temporary situation, and hopefully over the long term, long term meaning not in the next few months, we would have an opportunity, and the SSC would have an opportunity, to full integrate the Great Red Snapper Count information.

We would have the opportunity to manage this fishery more intelligently, and the states would have an opportunity to formulate solutions for calibration, and so, really, the issue we have is no different than the issue that the SSC had, where we're being forced to make a decision in a very compressed timeframe with imperfect data.

What we probably can consider is a band-aid solution that would get us through the next season, and exceeding the ABC by some acceptable amount, as long as we're way below the OFL level, makes perfect sense. Maybe we can't solve this thing the way we all want to at this meeting, but we can certainly make a decision that would get us forward into the future, to a point where we can make a better decision, a more intelligent decision.

I guess what I am trying to say is maybe we understand that this fifteen-point-whatever ABC is going to be exceeded, but we'll be within the OFL level for a season, until we can fully absorb the Great Red Snapper data and come up with a more intelligent decision. Thank you.

CHAIRMAN GUYAS: Thanks, Phil. I see a couple of hands going up. Kevin.

MR. ANSON: Thank you, Madam Chair. Kind of carrying on the discussion that Phil just had, it is a lot to take in, although we have been talking about it for a while, as Andy said, but we have not had time, really, to digest the implications of the Great Red Snapper Count, and there are some issues there.

People have been saying, in order to fix regional management, or the current situation we're in, we need to calibrate to the Coastal Household Telephone Survey, of which we have a two-times difference between the Alabama Snapper Check and the Coastal Household Telephone Survey estimates for red snapper during the time period for which they were compared.

Alabama has been trying to set itself up to get away from the federal data, because we've been penalized, for years, with the federal data collection system and how it was used in the assessment and how then the assessment produces a result and goes to the SSC process and then is available to management.

This goes back to the reauthorization and how things kind of were shuffled around, as far as who had say, and I am not arguing that having science have a first crack at the number is not the way to go, and that's not what I am saying. What I am saying is that science -- When we have a bunch of science, and we need to be able to look at each of those numbers and compare them to one another.

We have an assessment, or had an assessment, that was using the Coastal Household Telephone Survey information, and it produces a number, and we had the Great Red Snapper Count, and it has

produced a number, and both of those are trying to ascertain what the status of the stock, what the level of the stock, is in the Gulf of Mexico, of which we're all trying to access that resource.

Again, we have had this discrepancy for years with the Coastal Household Telephone Survey and then the application, when it comes to management and distribution of those pounds, we feel like it has not been totally reflective of the fish that are available off of Alabama and that we have been penalized for the amount of fish that we have.

The Great Red Snapper Count kind of puts that into more focus, and you can look at that, and so we've had some preliminary numbers provided to the council, which we have discussed in committee and at Full Council, and I will just go back to one of my comments that I made at the last council meeting, and that's, for Alabama at least, for each coastal mile, it has twice as many fish as the average coastal mile in the Gulf.

Why is that? I don't know. It might have something to do with the habitat, and it's preferred, and it's able to result in a very productive red snapper population off of our section of the coast, relative to other areas, or perhaps maybe we haven't been able to fish it at levels that other people have been able to fish their stock and matching their productivities. Those are all questions that are still yet to be resolved in order for us to get to a better place for management.

Currently, red drum are managed on a state-by-state basis, using escapement rates, and I think that's something that we ought to be looking at, so that we can fully capture the productivities off of each state and being able to better access the fishery using that information.

I will just go and close with this is Version 1.0 of calibration that we're going through right now, and it's messy, and it doesn't look good, but, if we continue down this path, and Alabama still participates and gives the data, both from the state currency side of things as well as the APAIS is being in the future, according to the FES effort component -- Let me just kind of describe to you what we're looking at at that point.

We're looking at numbers that are three-times higher than the Coastal Household Telephone Survey for similar years as what was used in the calibration, and that would result in numbers that are six-times greater than the Snapper Check numbers, and so we have a point estimate, and I understand there is -- On the

scientific side, you have to worry about uncertainty, and, certainly, the more uncertain you are, the less confidence you put in that point estimate, but, when it comes to management, we have to get that money out of the bank, and whether we're going to France, or we're going to Brazil, to get the currency there, we still have to go to one bank account.

We have to go to the Gulf of Mexico, and, for Alabama, we have to go to our slide of the Gulf of Mexico, and so we have a point estimate of around 9.8 million fish for Mississippi and Alabama, and it's about 82 percent that are off of Alabama, and so that gives you 8,080,000 fish that are estimated to be two years of age or older off of Alabama, and it could be higher, and it could be a little lower, but that's the point estimate that we have right now.

If you were to use FES estimates and compare those estimates to the population of fish in the Great Red Snapper Count, if you were to use all of the habitats, of which that eight million fish was estimated to occur, we would be harvesting, in 2017, of which it was recorded through FES to have 8.9 million pounds of harvest from the private recreational sector, which is more than the entire recreational ACL for the Gulf of Mexico, I would like to remind folks.

That would represent 15.5 percent of the number of fish that are off of Alabama that were harvested, in order to get that, just for charter boats, state and federal, and private recreational boats. If you were to remove the uncharacterized bottom, of which there's a lot of contention and concern as to whether or not that's an accurate number, that would leave you with a harvest of 21.7 percent of the fish in 2017.

If you look at the biomass, it gets a little worse, if you're looking at percentages for 2017, with that 8.9 million pounds of FES and private. If you add up the charter and the FES numbers for private in 2017, you would end up with 34 percent of the biomass that's estimated off of Alabama, using a 3.5-pound average per fish, on that eight million fish, and you would end up harvesting 34 percent of the biomass.

Then, if you were to remove the uncharacterized bottom and the fish that are associated, or counted, for it, and still apply the 3.5 pounds to the difference, which would be five-and-three-quarter million fish, and then use the harvest in FES from 2017 off of Alabama, you would have harvested, according to FES, 48.2 percent of all of the fish in artificial and natural habitats, where we think most of the people are going to catch these fish.

That's where the majority of the effort is occurring.

You go forward in time to 2018, of which the Great Red Snapper Count did its Gulf-wide accounting, and, in FES, in pounds, you would end up harvesting 22.6 percent of Alabama's biomass, using all habitats, and 31.7 percent if you were to exclude the uncharacterized bottom. That's a lot of fish.

Is that biologically -- Are snapper able to support that? Current information suggests that that is not possible, and yet, in 2019, we harvested 21.6 percent, using FES, of all the habitats, and 30.4 percent if you remove the uncharacterized bottom.

I would think, if you were harvesting a third of your biomass over three years, you would probably be able to see a reduction in the number of fish that would be available, as well as the sizes. That's my personal opinion, and so, if you throw Snapper Check in there, and use its numbers, in 2017, of all the biomass caught from all habitats, looking at charter and private mode estimates from Snapper Check, both modes estimated in Snapper Check, we would be harvesting 4.8 percent of the biomass for all habitats, or 6.7 if you were to remove the uncharacterized bottom.

In 2018, when the Great Red Snapper Count was performed, we would be harvesting 6 percent of all of the biomass, based on Snapper Check landings in 2018, and then 8.4 percent in areas without the uncharacterized bottom. Then, in 2019, it's 5.8 and 8.2.

Again, in our EFP, we were accounting for those fish, and we estimated a number, and our number was less, according to the Great Red Snapper Count, because we didn't use the methodologies that were used in the Great Red Snapper Count, and so it was a little less, but our management target was 0.1, 10 percent, and here we are, and we're at -- Now, this doesn't include headboats, and it doesn't include the commercial, and so we are very close to harvesting the amount of fish that, according to current wisdom, is 0.1 would be the exploitation target.

We have very, very strong issues, or problems, with continuing down this road with calibration, and we have data and information, and, when you compare that information to what is available, what went into the number that we're trying to use for management, we have a hard time trying to justify it. Thank you.

CHAIRMAN GUYAS: All right. Thanks, Kevin. Mara.

MS. LEVY: I honestly don't remember what I was going to say. Sorry.

CHAIRMAN GUYAS: It's all good. We'll go to Andy then.

MR. STRELCHECK: I wanted to respond back to Kevin's comments, and it's not directly, and so, Kevin, I certainly appreciate, obviously, your thinking, and the data and information, obviously, you have before you, with regard to Alabama, your concerns about the differences between FES and CHTS and Alabama Snapper Check, and all of that I think has been on the table for some time, and certainly there is recognition that we need to somehow determine which surveys are biased, or what those biases are, whether they are biased low or high, and try to explain those differences going forward. We haven't been able to determine that and figure that out.

What I guess I do though want to emphasize here is that's not the question on the table right now. We wouldn't be having this discussion about calibration if we had an assessment that incorporated state survey estimates and was able to produce annual catch limits based on those state surveys. We don't have that. We haven't incorporated the state surveys into that assessment, and the Great Red Snapper Count hasn't been incorporated into that assessment.

We have advice right now that's in a currency that is just not consistent with, obviously, how the states are counting fish, and so that is, obviously, the question on the table here, is to come up with a method that standardizes those surveys to the same common unit as the quotas are set in.

How we do that, obviously, it's through calibration or some sort of buffer that affects all the states. None of it, obviously, is good for Alabama, because you do incur a reduction, and Mississippi as well, but we need to get to a common currency, obviously, to manage this fishery, with the goal, obviously, of incorporating the Great Red Snapper Count and making adjustments to the stock assessment process as we move forward. I just wanted to refocus the council on the issue at-hand, which is, obviously, that common currency.

CHAIRMAN GUYAS: Thanks, Andy. I am looking to see if there are any other hands. I am not seeing anyone else with their hand raised at this time. Okay. This is potentially a final action item at this meeting. For the council to do that, we would need

a preferred alternative, and so -- Kevin.

MR. ANSON: Thank you, Madam Chair. Since there was a pause in people raising their hands, I have sent a motion to staff. I will give them a second to get it. I appreciate Andy's comments, but we feel fairly passionate about the information that we have, and I will -- If I get a second, I will explain a little bit more as to why we feel that way and what some of the implications are, if we go with any of these other alternatives besides no action in the document. I will read the motion.

CHAIRMAN GUYAS: All right. Go right ahead.

MR. ANSON: It is to add a new alternative, Alternative -- I believe it's 3, and it might be 4, that would change the state-specific red snapper private angling component annual catch limits, using modified percentages from those identified in Amendment 50A in state survey currencies through 2023. Alabama would retain the ACL that was issued in Amendment 50, which is 1.122662, and then the corresponding ACLs, with their pounds and the percentage allocations, are there, with the new ACL that we just passed in the previous document.

I don't know if I need to read it again for the record. It was a little disjointed there, and I can if you would like, Madam Chair.

CHAIRMAN GUYAS: Okay. This is to add a new alternative, which is now Alternative 6, that would change the state-specific red snapper private angling component ACLs, using modified percentage from those identified in Amendment 50A, in state survey currencies through 2023. Alabama would retain the ACL that was issued in Amendment 50A. Then the others are -- I am just trying to understand what this does, looking at the percentages here and the poundages.

MR. ANSON: If I can, Madam Chair.

CHAIRMAN GUYAS: Yes, please. Explain.

MR. ANSON: I just kept Alabama at the same pounds that we have had for the last several years, and, again, this is all under the context of state currencies, and I know that's a point of contention, but trying to work within the system the best we can with the information that we have available to us that is passed through the SSC.

Alabama would -- The private recs would still retain their

1.122622 pounds, which is what they have had for the several years, and then I deducted that from the 4.35 million pounds that, again, was just approved. Then everybody got a higher percentage, based on doing the same exercise with the old ACL and what the total was for theirs and their percentages, based on the remaining pounds in the last 4.269 million pounds. Everybody's percentages went up, and everybody's pounds went up, except Alabama's. Our pounds stayed the same, and our percentage allocation went down.

CHAIRMAN GUYAS: Okay. Is there a second for this motion? Shout it out, or not. Going once.

MR. RICK BURRIS: I will second it.

CHAIRMAN GUYAS: Okay. That was a second on behalf of General Spraggins from Rick. I am going to go to some hands then, unless -- Kevin, I think you just explained kind of where you're coming from on this. Ryan.

MR. RINDONE: Thank you, Madam Chair. I just wanted to point a couple of things out to the committee. Under this alternative, based on the ACLs that would be established and that the states would be fishing to, using their own data currencies, that an overage would be expected for this alternative, just as it would under Alternatives 1 or 5, and, also, that this alternative, based on how it's written and based on the intent that was provided, is tantamount to reallocation, which would require a plan amendment and is not something that we can do like this in this document.

CHAIRMAN GUYAS: Right. Okay. Thanks, Ryan. I was going to ask that question. Mara.

MS. LEVY: Thank you. I will echo some of that. This isn't really an alternative to the action in this document. This action is addressing somehow figuring out a way to adjust the state catch levels into their currency, such that we don't exceed the private angling ACL. This is something that does a reallocation based on the catch levels you are presumably going to adopt in the other document.

If it's relevant to anything, I think it would be relevant to what's in the other document, although it's an allocation shift, a direct allocation shift, and so it would need to be a plan amendment, but it doesn't seem to me to be an alternative for this particular action.

CHAIRMAN GUYAS: All right. Thanks, Mara. Any other questions or discussion on this motion? Seeing none, let's do a roll call vote.

EXECUTIVE DIRECTOR SIMMONS: I'm ready, Madam Chair.

CHAIRMAN GUYAS: Go ahead.

EXECUTIVE DIRECTOR SIMMONS: Mr. Anson.

MR. ANSON: Yes.

EXECUTIVE DIRECTOR SIMMONS: Dr. Stunz.

DR. STUNZ: Yes.

EXECUTIVE DIRECTOR SIMMONS: Ms. Bosarge.

MS. BOSARGE: No.

EXECUTIVE DIRECTOR SIMMONS: Dr. Shipp is absent, I believe. Mr. Sanchez.

MR. SANCHEZ: No.

EXECUTIVE DIRECTOR SIMMONS: Mr. Williamson.

MR. WILLIAMSON: No.

EXECUTIVE DIRECTOR SIMMONS: Mr. Strelcheck.

MR. STRELCHECK: No.

EXECUTIVE DIRECTOR SIMMONS: Mr. Diaz.

MR. DIAZ: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Burris.

MR. BURRIS: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Dyskow.

MR. DYSKOW: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Riechers.

MR. RIECHERS: No.

EXECUTIVE DIRECTOR SIMMONS: Mr. Dugas.

MR. DUGAS: Yes.

EXECUTIVE DIRECTOR SIMMONS: Mr. Banks. Mr. Swindell.

MR. SWINDELL: Yes.

EXECUTIVE DIRECTOR SIMMONS: Ms. Boggs.

MS. BOGGS: No.

EXECUTIVE DIRECTOR SIMMONS: Mr. Banks or Mr. Schieble.

MR. BANKS: Yes.

EXECUTIVE DIRECTOR SIMMONS: The motion carried eight to six with one absent and two abstentions. Madam Chair.

CHAIRMAN GUYAS: Okay. We have added that to the document. Tom.

DR. FRAZER: Thank you, Martha. So I appreciate all of the difficulties with this particular document. What I would like to do is ask the folks at NOAA, either Andy and/or Mara, what our options are moving forward, and I will give you a little more context, right?

First of all, I'm concerned that we -- With regard to the last motion, that it's a reallocation, as Mara already pointed out, and I think that's beyond the scope of a framework action and would require a plan amendment.

Having said that, I just want to think about where we are with regard to an Alternative 1, which is essentially no action, and I just want to walk through this for everybody. That's essentially no calibration, and, if you do that, and Alabama was to catch let's say one million pounds of fish, thereabouts -- What I am trying to do is to think about the consequences of allowing essentially an uncalibrated catch into this equation, and, essentially, it equates to about 500,000 pounds.

The reality is, if you do that, you will exceed an ABC, and my understanding is, under the current situation, that NMFS would be required to impose a payback mechanism, which ultimately would put Alabama in a very precarious situation in 2022, and I don't think anybody wants to do that.

What I think we're trying to do, at this point, is to work through all of the viable options without undue economic harm to any particular sector or any particular state, but we don't have, in this document, in its current, I guess, configuration, an option that allows us to do that.

On the other hand, we have a great deal of uncertainty around the catch advice, and some discussion by the Science Center that would indicate that, if in fact you exceeded this ABC by that amount, you would not subject the fishery to -- You wouldn't unnecessarily or unduly compromise the rebuilding plan.

We may -- If you did do that, the question is, all right, will we have made a mistake, and how would we evaluate that, and how would we know, and, as Dr. Porch pointed out, by January of 2022, we will have an update to the bottom longline assessment, and we will have catch data from each of the states, and we will be able to evaluate that information on a much finer resolution than MRIP would ever allow us to do, and we would be able to look at the catch per unit effort, and I would expect, for example, if there was a real problem, as Mr. Anson pointed out, that the CPUEs would decline precipitously, and I would also expect that the size of the catch would decline with time.

My question to the NOAA and NMFS folks is, given all of this information, is there a path forward that you could envision that might help this council to move forward with a solution that doesn't impose undue economic harm on any of the states or any of the sectors, and so I'm going to open that up to either Andy or Mara.

MR. STRELCHECK: Thanks, Tom. I will start, and certainly I would have Mara weigh-in here. I guess a couple of thoughts, just based on the motion we just passed and the amendment, and so a path forward, to me, is, if we're adopting that alternative, it would be a delay in the action for at least another meeting for some sort of decision point, as staff incorporates that alternative into the document, plus we have to turn it into a plan amendment rather than a framework action and change the purpose and need, because what's been selected really isn't consistent with the purpose and need.

There's a lot of, obviously, workload administrative implications on this, which the council, obviously, can take into consideration however they see fit.

Really, what we've done with this new alternative is select

status quo, right, and we are essentially setting the ACLs consistent with the ABC that we just approved in the previous action and not accounting for any differences in state surveys relative to how the quotas have been established through the stock assessment process.

I see a number of legal vulnerabilities that, obviously, continue to remain, and I spoke, obviously, about a number of cases that the agency has lost over time with regard to red snapper management and recreational overages, and those continue to remain, and certainly they open the agency up for further litigation, if this continues to be the preferred alternative or path the council goes down.

In response to your question about reducing the economic and social impacts of, obviously, this action, obviously, we were all banking on -- Or at least many of us were banking on an ACL increase that didn't transpire. None of us really have a good sense, at this point, as to whether that will transpire, but given, obviously, the high abundance estimates in the Great Red Snapper Count, there is certainly the potential for that.

Given we're in April, any sort of council action at this point would take a considerable amount of time and rulemaking by the agency, and I don't expect that we would be able to get any sort of changes to catch limits or calibrations in place much before the fall, and so the only, I guess, social and economic option that I see that would at least minimize impacts for 2021 would be to consider requiring calibration beginning in 2022.

It does not avoid the legal vulnerabilities, obviously, for NOAA Fisheries, but it does give the states another year to kind of adapt to this new management system and whatever results come from the Great Red Snapper Count.

I am not overly concerned about overfishing occurring if the council adopts the new OFL, because there is now an enormous buffer between the OFL and ABC, but the states, obviously, have signed up for delegation through state management, and they're on the hook to pay back overages going forward, based on decisions made by this council and the calibrations that occur. That is really the only path that I see, but it does also have its legal vulnerabilities, and Mara might want to say more.

CHAIRMAN GUYAS: Mara, did you want to jump in?

MS. LEVY: Yes. I mean, I guess I just want to -- There's a lot of talking like whatever the council chooses here automatically

gets implemented, and I just want to be clear that the agency, in order to implement anything, has to make a number of determinations, one of which is that what is being implemented is consistent with the Magnuson Act.

If you're going to select an alternative that is knowingly going to allow exceedances of the ACLs and the recreational quota, I think the agency is going to have an extremely hard time finding that consistency and actually implementing it.

Also, just reiterating that the alternative that you just added -- Again, it's status quo with an allocation adjustment, based on what you did in the other document, and it is not an alternative that is consistent with the purpose and need of this document, and you have kind of, I feel like, mixed the two issues together here, and I think it's going to make this document that much more confusing, because it's not a real alternative, given that purpose and need.

DR. FRAZER: I just want to circle back then, for clarity, with regard to Andy's last point. Is it the discretion of the agency to adopt the calibration as they choose? Could they wait until 2022 to adopt them? Is there flexibility to do that or not?

CHAIRMAN GUYAS: Andy.

MR. STRELCHECK: Certainly Mara can correct me, but we have been working to, obviously, implement calibration, and we stated clearly in our Amendment 50 rulemaking that we need to impose the calibration as soon as possible, and certainly the council could make a decision as to when they would want to recommend implementing calibration, but it doesn't alleviate the agency from potentially legal vulnerability or potentially being able to approve that action, as Mara was considering.

DR. FRAZER: Thank you. I'm done, Martha.

CHAIRMAN GUYAS: Okay. Thanks, Tom. Susan. Thanks for waiting.

MS. BOGGS: Thank you. This actually is probably a question for Mara. Based on the motion that just passed, my understanding is that really is not dealing with the calibration issue. Are Alternatives 3, 4, and 5 that are currently in the document dealing with calibration? I mean, it's dealing with the reduction, but it's still not calibrating from the states to CHTS. Thank you.

CHAIRMAN GUYAS: Mara, do you want respond to that?

MS. LEVY: Sure. The purpose that's stated is the purpose is to reduce the likelihood of exceeding the red snapper private angling component ACL by adjusting the state catch limits to account for the monitoring programs used by each state.

One of those options is to apply the straight calibration. The other option that works, that I think goes with Tom's idea about lessening impact to some of the states, is the 23 percent buffer, because then you're sort of spreading those impacts out for now and giving everyone a slightly reduced catch level, to account for the fact that all these different state reporting systems are being used, and so both of those options do go to that purpose.

CHAIRMAN GUYAS: Thanks, Mara. Ryan.

MR. RINDONE: I would just say what Mara said. Thank you.

CHAIRMAN GUYAS: All right. Patrick.

MR. BANKS: My question has to do with the timing of this. If calibration was instituted, and let's just say, hypothetically, you went with Alternative 2 and you implemented calibration, based on what I heard Andy say, by the time the federal rule came into place, sometime in the fall, that's when these new numbers would take effect, and most of us would be finished with our season at that point, and so, effectively, you would have to fish under new numbers until the 2022 season. I just wanted to make sure that I was right in that understanding of what Andy said, if Andy or Mara can confirm for me, please.

CHAIRMAN GUYAS: Thanks for asking that. I guess, just to build on that, if the council wanted to go down that path and not implement this until 2022, would the council need to make modifications to the alternatives to dictate that, or would it just be something that we would, I guess, suggest on the side to the Secretary, when she implements this? Andy or Mara, whoever wants to jump in on that.

MS. LEVY: Ultimately, I think it's the agency's determination about when to implement it. I mean, I think, if the council dictates the implementation date, and the agency can't justify that implementation date and make a consistency finding with the applicable laws, then the agency would be in bind, in terms of implementing it, but, I mean, I don't -- That's sort of a down-the-road question.

It's not something that I think can be given a firm answer right now, but, just to Patrick's point, if the catch levels get implemented this year, they are effective this year, and so, if a final rule is actually effective in say September, those are the catch limits that would apply to 2021, and I think what the states would have to do is, if the council votes this up and decides to submit it for review and implementation, the states would have to be aware that these could be implemented in 2021 and adjust their management accordingly. Otherwise, they could end up being over, when they get implemented, and be subject to a payback.

CHAIRMAN GUYAS: Okay. Leann and then, Tom, I see your hand is up.

MS. BOSARGE: Just a couple of things. Thanks, Madam Chair. We discussed this a little bit at the last meeting, because I had concerns, in January, that we probably should have taken final action and done something last year, in order to make sure that we did not end up in a position where we possibly overfish again this year.

There was some, I thought, at that time, very constructive feedback from the states to reassure me that, no, Leann, even if we don't take final action until April, we will know, at that point, what our catch recommendations are for each state, and we can go ahead and adjust our state management accordingly, to make sure that we don't exceed those levels, knowing that they're coming down the road that year. I hope that that's still the case, because I had some big concerns about that at the last meeting.

Then this other idea about there is this OFL that we just picked a preferred for in the last document of twenty-five million pounds, and so, if we exceed these catch levels, it's okay, because the OFL is so high. Well, first off, that's not how Magnuson reads. You don't shoot for the OFL. You have a catch level, and that's what you're aiming for, but let me kind of turn the tables on that logic for a second.

If that is how the council wants to manage, then I guess we would also need to go ahead and get rid of hail-in and hail-out for the commercial sector and VMS and reporting of your IFQ red snapper catch, because, hey, we're shooting for the OFL, and we ought to get a piece of that twenty-five million too, if that's the way we're going to manage this fishery.

Just think about -- I think sometimes we think about this in the context of just recreational fishing, and, although the calibration itself -- Yes, it applies to private anglers, but everything we're discussing here has a larger context.

There are other sectors that pursue red snapper, and, as you exceed any catch level recommendation, whether it be the ACL or ABC or overfishing limit, it does have ramifications for others, because it means foregone yield in the future, and, unfortunately, that foregone yield, the way that we manage -- When you get stock assessments, and your stock is not as big as it once was, because you have fished it harder than what was recommended, there is foregone yield, and that doesn't come out of the sector that got the benefit of catching those extra fish. That comes off of everybody.

We need to take a step back and remember that. Now, I understand that this is very difficult for the private rec sector, and I do not envy the position that you are in right now, and I realize that it is difficult, but we do have to remember that the decisions that we make for private anglers do have ramifications for others if we do not stick to catch levels that we're supposed to stick to. Thank you.

CHAIRMAN GUYAS: Thanks, Leann. Tom.

DR. FRAZER: I apologize, Ms. Guyas, and I realize this is your committee to chair, but we are running up to a hard stop, and we have a different meeting that we have to join here at 5:30, and we're a little past the time, and I am going to suggest that people think long and hard about this discussion.

We'll bring this particular item up in Full Council, and, again, it's slated for a final action item, and so think long and hard about what a preferred might be and where you might stand and what our options are moving forward.

If it's okay with you, we can just go ahead and adjourn this meeting today. We will pick up -- I would like to -- We have some red grouper things that we need to take care of in the morning, and we will try to move expeditiously through that, and, as time allows, we will tackle some parts of the Habitat Protection Committee, if time allows, and so, anyway, I think that's all we have time for today, Ms. Guyas, if you're okay, and we can go ahead and adjourn.

CHAIRMAN GUYAS: Thanks for that, and thanks for the reminder about the session after this, because I completely forgot, and I

don’t want to run into that time. Okay.

MR. RINDONE: Ms. Guyas, just a reminder that, after red grouper, we also still have a few other remaining items, and so you guys might want to keep an eye on what your time looks like in the morning and figure out if any of those need to be rescheduled.

CHAIRMAN GUYAS: Right. I’m hoping, depending on how the week shakes out, that we can either pick up stuff in Full Council, or we’ll just have to move it to the next meeting, depending on urgency, and so thank you for that reminder.

MR. RINDONE: 10-4.

CHAIRMAN GUYAS: Cool.

MS. MUEHLSTEIN: Ms. Guyas, we are hosting the question-and-answer session after this with NOAA and council leadership, and so I just wanted to remind everybody that if anybody that’s on the webinar right now wants to hop over to that session when we adjourn, and you can go to the council meeting materials, and there is a registration link there, and we’ve also posted it on Facebook, for anybody that’s interested.

CHAIRMAN GUYAS: All right. Thanks, Emily. Thanks, everyone, especially staff, that navigated a lot of audio issues today. These meetings are, I know, challenging, but I think we made it through just fine.

DR. FRAZER: All right. We’ll see everybody tomorrow at 9:00.

(Whereupon, the meeting recessed on April 13, 2021.)

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April 14, 2021

WEDNESDAY MORNING SESSION

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The Reef Fish Management Committee of the Gulf of Mexico Fishery Management Council reconvened via webinar on Wednesday morning, April 14, 2021, and was called to order by Chairman Martha Guyas.

CHAIRMAN GUYAS: Dr. Freeman, are you going to run through the

action guide for us and get us started?

REVISED PUBLIC HEARING DRAFT AMENDMENT 53: RED GROUPER ALLOCATIONS AND ANNUAL CATCH LEVELS AND CATCH TARGETS

DR. MATT FREEMAN: Yes, ma'am, I will. For this agenda item, the committee will receive the requested presentation on red grouper average weights from NOAA OST and Science Center staff. The committee should ask questions and provide any relevant feedback.

Following that presentation, staff will review the actions and alternatives in the revised public hearing draft of Reef Fish Amendment 53. The committee should discuss the actions and determine if any modifications are needed. The council selected preferred alternatives and directed staff to begin public hearings at the January 2021 meeting. If no additional revisions are requested, staff will conduct public hearings following the April 2021 council meeting.

Staff will also review the deliberations and recommendations on the actions in the document by the council's Reef Fish AP, which discussed the document via webinar on February 24. I will hand it back over to you, Madam Chair.

CHAIRMAN GUYAS: All right. Thanks. Let's go ahead and go into our first presentation then on the weight estimation methods. It looks like Dr. Cass-Calay is going to give this one, if she's on the line.

PRESENTATION: WEIGHT ESTIMATION METHODS AND BACKGROUND DOCUMENT: RED GROUPER 2015-2019 LENGTHS AND WEIGHTS

DR. CODY: Martha, I think we're planning to split the presentation. Is that right, Shannon? I do the first part and you do the second part?

DR. SHANNON CASS-CALAY: Yes, that's correct.

CHAIRMAN GUYAS: Sounds great.

DR. CODY: I will just go ahead and lead off with the MRIP methodology, and then Shannon can provide details on the Southeast Science Center treatment of the weight information. The procedure that I'm going to present today basically is the methodology that's used by the Office of Science and Technology in coming up with an average weight for an estimation domain for each species, and these are the estimates that you will see on

our web query tool.

There are a few references, I think, that are helpful for this discussion, and the first is there are lots of references out here on imputation in general, and this one is particularly useful, and I found it useful, and it's David Haziza and Rao basically looking at variance estimation for cluster sampling under imputation of missing data, and so it's the type of sampling framework that we use for the MRIP APAIS survey.

There are a couple of other things here that I posted links to. At the NOAA Fisheries website, we have the weight data information in a glossary form, and we also have a survey statistics overview page, and then there's a more detailed treatment of the statistical methods for estimation of catch and effort, and so those are all available through the NOAA Fisheries website, and hopefully these links are still active in the presentation.

Then there are couple of workshops that I wanted to draw your attention to. One is, most recently, and it was in August of 2020, where we did a similar presentation for the Gulf Council SSC. The year before that, we presented this information for the South Atlantic Council SSC, and there's a reference here to SEDAR 67 that has a discussion of sample size and sensitivity analysis for MRIP weights, and so those are all relevant to the discussion.

Just to start with an overview of the survey and the survey design and how weights are collected, basically, we're talking about the Access Point Angler Intercept Survey, which is in-person interviews of anglers, and these are intercepted at public access sites, and so these sites are maintained largely by the state partners that conduct the surveys, and they're updated regularly, and that's the basis for our sample frame. Then data are collected continuously and used to estimate catch rates, as well trip characteristics on a wave level two-month period.

Here's a little bit about the design. I mentioned, in the Haziza and Rao reference, the multi-stage cluster design, and the APAIS itself is what we call a stratified cluster multistage design, and the so the multistage really refers to the different stage units, and so, in the primary stage, we have your sample, and that comes from your sample frame, and this is set up as site cluster day and time.

Then the secondary sub-units is duration, or time, spent on site

sampling, and so, obviously, if you have a cluster of sites that you're visiting, and you have six hours to conduct sampling, some of that time is spent traveling between sites, and so you end up with not quite six hours spent on site, and so you have to adjust for the time that was spent off site.

There's a tertiary sample unit, and this is the angler trips, and so we go from the interview to the angler trips, and then, beyond that, we have what we call a quaternary, or a final stage, sample unit, and that's the catch. That's the basic design used in MRIP, and each of these stages have what we call sampling weighting associated with each stage.

Not to confuse the issue here, but we have a weighted sample design, and so there are two references here to weights. We have weights that we collect in the field from anglers, and that refers to the fish weights, and then we have the sample weight, and so that's basically, at the primary stage, one over the inclusion probability, and so it would be the chances of selecting a certain site on a certain day at a certain time interval.

Then you have, for Stage 2, you have the weighting that adjusts for time spent traveling between sites, or time not spent at sites, and then, at Stage 3, we have an adjustment for numbers of anglers that are intercepted versus the total number that are on site, and then, in the final stage, there's a weight adjustment there for numbers of fish that are sampled of the total that are harvested for any given angler trip. I know this is a lot of information, but this is how we weight our samples to get to the point where we include the weight information that's collected in the field.

Really, this is just meant to provide you with some background information for how we calculate or how we do our estimates, and so how do these weights figure into the overall estimate? Well, as I said, we do estimates by domain, and that includes catch rates as well, and so, for our final sample weights, there are two different processes.

We use the first three weights, if we're doing numbers of fish, and so that is used to calculate the numbers of fish, but then there's an adjustment where a fourth weight is added to end up with total weight, and so this information is also presented in detail on our website, as I mentioned, in our procedures methods.

The information that I talked about, basically the catch

information, is three different types, and where we get our mean lengths and weights from are from the Type A harvest, and this is the observed harvest that samplers are able to collect a weight or a length for a fish, and the only thing I'm pointing out here, really, is that there are two different types of harvest. There is unobserved harvest, and there is observed harvest, and so we use the Type A to obtain the fish lengths and weights.

The efficacy of that process really depends on a number of different factors. You can have samplers in the field that are at a busy site, anglers that are in a hurry, and so there are occasions where they don't get all the weights and lengths for the species that they observe.

What I just mentioned really are the different scenarios where you might not get a weight or a length for a fish, and so there are two -- Really, there are two things we have to worry about when we're trying to do estimates for average length or average weight, and that is, if there's a missing length, for instance, or a missing weight, or we can have a situation where both length and weight information are missing, and so we use two different approaches, depending on whether both are missing or whether one is missing.

For the first scenario, where either a length or a weight is missing, we use standard length-weight relationship models to impute a weight, if there's a weight missing, for a given length. In those situations, if we have one or the other, we can calculate a length or a weight, using a standard formula that's set up by species.

The other situation that I refer to is when you have both species of information missing, and so you don't have a length or you don't have a weight, and so, for that process, we use a mix of what's called hot and cold deck imputation, and, so really, hot deck imputation really refers to grabbing information from a similar dataset, or the same dataset, and then cold deck means going to a different dataset, and so it can be from a different year, or it could be from a different location, although we avoid that, generally.

For length and weight imputation, we do what are called a series of round of imputation, starting with the hot deck components, and so we start with the most similar data, and we kind of work our way out from there, and you end up getting to the end of five rounds.

If you have a weight or a length at that time, then fine, but, if you don't, that process ends, and so you don't always end up populating fields for missing lengths or weights.

One thing I will point out here is that most of the imputations occur within the first three rounds, and so it's generally not necessary, except in the case of a few rare species, or infrequently-encountered species, where we have to go beyond the first three rounds, and one other thing I will point out is that, in terms of just specifics of the imputation, it always targets the same species and the same sub-region, and so you may go out of state within a region, but you will stay within the sub-region, and we don't go beyond that. Then, to reduce the potential for introducing unknown biases to the data, the sample weights are not factored into the imputation.

This is a summary of the basic information, in terms of the rounds of imputation that occur, and you will see there are three different columns here. You have Rounds 1 through 5 on the far left, and, as I said, the first two round really refer to the hot deck imputation. You start getting into hot and cold mix at the third round, and then it's a cold mix after that.

What we try to do, in the first round, is we complete that round if we obtain a minimum of ten observations, and so that doesn't mean that the sample size is limited to ten, and it can be quite a bit larger, depending on the availability of data. If there are more than ten observations available, those will be used, or taken. If we don't reach the ten, the minimum of ten, it then flips to the second round, and you will see, in the first round, we concentrate on the current year, wave, sub-region, state within sub-region, mode, area fished, and then species.

For the second round, it goes to -- It breaks the year up into half-years, and so you would have the year, the half-year that encompasses the domain there is missing information, and that is the process that is used throughout, until we get to the final round.

I mentioned about catch estimation, and we have a weighted sampling approach that requires weighting the catch rates and the effort information to come up with a total catch, and there are various adjustments in there, and I think this is sort of relevant to the imputation methods that I mentioned yesterday in the discussion of the 2020 catch estimates.

I mentioned that there were pieces of information that we get from APAIS to inform the effort estimates, and so, in the

weighted effort estimate, you will note that there are two bullets at the bottom there that refer to those adjustments that we make to those weights.

I will just speed through this part here, because it's not really that relevant to the actual methodology, but it's just showing you where it fits in, where the catch rate is multiplied by the effort to come up with a total catch.

Then the weighted estimation process is figured in here, and so you have total catch by wave here, and you have a weighted effort FES effort, and then you have the weighted APAIS catch adjustment as well, and so, for total catch on the annual level, the weight level information is summed.

I have tried to give a brief summary of how our imputation methods are done. In addition to that information, I have provided a set of tables for red grouper, and they refer, I think, to the past five years, 2015 through 2019, of available data, but, on those tables, basically, they are set up as three separate tables. You have year, state, mode, and area fished in the first table, and then you have year, state, and mode fished for the second table, and then, in the last table, you have it broken out by wave.

What I wanted to direct your attention to are the two far-right columns, and those, you will see, if I pull up my version of this, have -- You will note there are two columns to the very right, and there are two metrics there that I mentioned yesterday as a way for you to evaluate the impact of the imputed data on the estimate, and so, in this case, we're dealing with mean weight, and it gives you a percentage of sample that was imputed.

CHAIRMAN GUYAS: Hey, Richard.

DR. CODY: Yes? Go ahead.

CHAIRMAN GUYAS: We can't see whatever you were trying to show us.

DR. CODY: It's in the table that was provided to the council, and so it would be included in the materials. We can pull it up, if you would like, but it would be the length-weight information for red grouper.

MS. BOSARGE: Martha, it's that background document in our briefing book.

DR. CODY: Yes.

CHAIRMAN GUYAS: I just want to make sure that everybody is on the same page.

DR. CODY: Okay.

CHAIRMAN GUYAS: I think you're talking about B-9(b).

DR. CODY: Yes, that's it. It's pretty hard to see what's on there, but, basically, I just wanted to direct your attention to the two far-right columns, and so what we looked into, recently, is a way that would give people some way to directly assess the impact of imputed values on the actual weight, average weight, estimate.

In the first, and we'll just take the very first table, and you have 2015 Alabama charter, and, in that, you'll see there's a mean weight of 2.25, and then you have a mean weight calculated without the imputed data included, and it's a little bit lower. It's 2.1.

If you keep going, you'll see there are two other columns there. One is the percentage of sample that was imputed, and so, basically, that's the amount of sample that contributed to -- The amount of imputed sample that contributed to the estimate, and then the percentage change in the mean weight value is just looking at the difference between the final mean weight and the mean weight without the imputed data, and so it gives you that as a percentage, and these are two different metrics that we have looked into recently as a way that we can provide data users with a little bit more information on the weight information, because sometimes the actual sample size may not be included in the raw data, or it would be difficult to ascertain.

Basically, it gives you an idea of how much of a contribution there is from the imputed data, and I also included the final sample size numbers as well, and then the sample size without imputation, and so you have that to look at as well.

I don't know if we can get back to that summary slide quickly, but the points that I want to make here is that the imputation is an established practice in large-scale surveys, where you have missing data situations, and, oftentimes, that's due to item non-response. For instance, if an angler is not willing, or able, to stick around so that a sampler can measure all his fish, or measure some of his fish, then that's that type of a

situation.

With MRIP, we use what I would say is a very conservative imputation approach to assign average weights to an estimation domain, and we do this only in situations where both lengths and weights are missing for the estimation domain in question.

There is limitations to any imputation approach that is used, and, obviously, there are some concerns that, for instance, when you borrow data, that it may not be borrowed from an appropriate domain, or cell, but, for instance, if you're missing data from an inshore trip, let's say, and you borrow with an offshore trip, for some species, that might mean that the average weights or average lengths are larger than you would expect for the waters that you are trying to replace the data for.

We are looking at ways to improve the current methods, and, as I said, these metrics that I provided here are just some of the ways that we're trying to do that, and we will be providing these types of metrics with the 2020 catch estimate, and so that should give people an idea of how much influence the imputed data has on the final estimate.

Then one other caveat here to remember is that our imputations for missing data, or data gaps, within 2020 is taken from 2018 and 2019 data, and so that would mean that, for the 2020 year, the weight and length information would be pulled from two years instead of one year. I think that's everything that I have on the MRIP methodology.

CHAIRMAN GUYAS: All right. Thanks, Dr. Cody. I think let's go ahead and move into Dr. Cass-Calay's part of the presentation, and we'll take questions at the end, if there are any.

DR. CASS-CALAY: Thanks, everyone. This is Shannon Cass-Calay at the Southeast Fisheries Science Center, and I will be acknowledging work that was done for this presentation by Vivian Matter, Matt Nuttall, and Skyler Sagarese. I will discuss the Southeast Fisheries Science Center weight estimation.

MRIP provides species-specific catch estimates by a variety of strata, and so these include the species, the year, the sampling wave, sub-region, state, fishing mode, and the fishing area. The data are provided in numbers of fish, and corresponding weight observations are not always available, due to sampling constraints or incomplete self-reporting.

Traditionally, and historically, recreational landings were

provided, for the purpose of stock assessment, in numbers of fish, and our stock assessment models are able to use either numbers of fish or weight of fish. However, when management measures, such as ACL monitoring, began, and we needed to monitor fish in pounds, there was a need to estimate the recreational landings in weight on a routine basis, and, therefore, the Science Center developed a standardized methodology to estimate those missing recreational weights, and that methodology was first described in a document in SEDAR 22, from the data workshop, Document Number 16.

The main need, from a stock assessment context and for monitoring of ACLs, is to ensure that there is a consistent weight estimation procedure applied across all years of sampling for the recreational statistics. A general methodology to estimate recreational weight estimates is also documented in SEDAR 32, in Data Workshop Document Number 2, and, in general, it's a very simple approach.

We are simply calculating the average weights by strata, and the strata that we use, and the hierarchy of that, is, first, species, then region, wave, year, state, mode, wave and area fished, and I will explain more about this in just a moment and show you some graphics that will make this much easier to follow.

Currently, we do use the new MRIP size datasets, including those imputed weights from the sampling program, and this has been available since November of 2018. There has been, in the Southeast Fisheries Science Center, a change in our methodology, in that we went from a minimum sample size of thirty fish per strata to fifteen, in the fall of 2019, and that change is described in the SEDAR working document described here.

Now, that thirty-minimum-weight threshold actually does not significantly improve the standard error of the weight estimation, compared to using fifteen, and, furthermore, using a fifteen-minimum-weight threshold results in more precise weight estimates within the strata, because it requires less aggregation from coarser strata, and we will show you that that change in methodology from thirty to fifteen did not result in any systematic bias in the weight estimation.

This is, in mathematical terms, the weight estimation procedure. In Step 1, we calculate the average weights from the intercept data, and I am just calling that WGT, for weight, for each strata, which is i, and, again, the hierarchy is shown here, and so, literally, for each strata, we're calculating an average

weight in the typical fashion.

Step 2 is that we identify the strata that meet the minimum sample size threshold of fifteen fish, and we have to apply appropriate average weight to convert those estimates of landings in numbers, and, again, we're using AB1 for landings, and that is the fish landed and observed by the sampler, as well as those fish that are dead and harvested, but not observed, the B1 component.

We're applying that average weight by strata to compute the landings in weight at the finest possible strata, and so you will see here that the landings, AB1 in pounds, in simply the AB1 landings in numbers by strata times the average weight, and so it's very simple, straightforward procedure.

This plot is a cumulative proportional plot, and so these bars sum to 100 percent, and this just shows you, by year, the proportion of MRIP weight estimates by the various sampling schemes for Gulf of Mexico red grouper, and it is a little bit difficult to read, but I will walk you through it.

You will see, in this later part especially, that about 50 percent of these bars are in the darkest-blue color, and that is actually our finest possible stratification. That includes all of those strata that I spoke to you earlier about.

Now, to get our minimum sample size, we do sometimes have to aggregate to the next finest stratification, and so, as those color bars go lighter, we are aggregating across more strata, and so the way you would read this is that about 48 percent of the total weight estimates are estimated at the finest level of stratification, and so that would include species, region, year, state, mode, wave, and area.

For about another 30 percent, we do have to drop the area and move back to the next level of stratification, which would just be species, region, year, state, mode, and wave, and so you will see how this progresses to meet that minimum sampling size criteria, but the important take-away here is that about 78 percent of our weight estimates are able to be made at the finest stratification or just by dropping the area.

This is what the number of available samples of weight look like annually, and so this plot actually goes from zero to about 2,800 samples, and so we typically have hundreds of weight samples a year, and, in some cases, more than a thousand.

You will see, also, that, in the early part of the time series, there are smaller sample sizes available, and so the natural consequence of that is that, in these early years, the weight estimates are estimated with relatively coarser strata, and so we do have to do more aggregation in the early time series, but, nonetheless, red grouper are well sampled throughout the time period.

Now we're going to talk very specifically about the red grouper weight estimation for the model, and so this is the SEDAR 61 model of red grouper that I will be discussing.

A little bit of background information about the red grouper model, and the data were initially provided in November of 2018, and they did not include the recreational landings in weight. They were not reviewed at the data workshop or assessment workshop, because there had been a backlog of assessments, due to the new release of the MRIP-FES/APAIS-adjusted estimates.

There were significant updates needed to the Southeast Fisheries Science Center data processing, as a result of these new data, but, more importantly, the SEDAR 42 model, the previous red grouper model, had used recreational landings in numbers of fish, as do most Gulf assessments, and, since SEDAR 61 was a standard assessment, the recreational landings in weight had not been requested or prioritized at that time.

Many have noticed that, in the case of the SEDAR 61 stock assessment model, there does appear to be a large difference between the landings estimate in the stock assessment model and the ACL monitoring dataset, and there are a few reasons for this disparity, which I will discuss. One is the input data itself, and the second is the uncertainty that is assumed in the stock assessment, and the third difference is the differences in the weight estimation procedure, and so I will go through each one of these.

The input data for the SEDAR 61 stock assessment, I will remind you that the recreational landings were entered into that model in numbers, as is customary in Gulf stock assessments, and so the model fit to the numbers of recreational landings and not the weight.

There was also a relatively large uncertainty that was assumed in the recreational landings, and even larger than that was assumed for the commercial landings, and so, in the case of the SEDAR 61 stock assessment, we assumed that the commercial landings were known, with a CV of about 0.15, which is much

larger than some other stock assessments in the Gulf.

The CV applied to the recreational landings was 0.3, and that's quite a large estimate of uncertainty, and so the model actually has substantial flexibility, and, when it's fit to the other data sources contained in the model, including discards and the age composition data and the indices of abundance, the model has the ability to say -- To basically down-weight the fit to the recreational landings, and they are not fit exactly. I will show you a picture of that here shortly.

What this results in is that the predicted landings from SEDAR 61 are in numbers that are not identical to the data we input into the model in numbers.

This just shows this graphically, and so I will walk you through the way this slide is composed, and so we have here, on the far-left-hand side, the commercial vertical line and commercial longline fit for the first column, SEDAR 61, and the second column, SEDAR 42, and the black dots are the SEDAR 61 observed values. The black line between those dots show you the expected value. Sorry about that. Now, the blue -- The black lines are actually the observed, and the blue is the expected in this plot.

You will see here that, for the commercial vertical line and the commercial longline, there is some lack of fit between the observations and the expected values, which is the result of using that CV of 0.15 for the recreational landings, and the same was true for SEDAR 42, which is that second column, except that the time series for SEDAR 42 was shorter, because the review workshop truncated the early information.

That third column now is SEDAR 61. The top is the commercial trap, and the bottom is the recreational fishery, which is a single recreational fleet, and so, for SEDAR 61, you will see that there is a substantial uncertainty applied to the recreational landings, which result in differences between the observed values in black and the expected values that are in blue, and that far-right-hand panel is the model fit to the SEDAR 42 estimates, which, again, have been -- The early years have been removed, at the discretion of the review workshop.

There is also, as I mentioned, a difference in the weight estimation. Now, recall that, in SEDAR 61, we input the data in numbers of fish and not in weight. We also, in the model, use a length-weight relationship, which is what is shown here in the figure, and so now the assessment model actually uses this

length-weight equation to convert the predicted numbers of fish, the predicted landings from the recreational fishery in numbers, into recreational landings in weight, and so this estimation is completely different than what is applied in the MRIP program or in the Southeast Fisheries Science Center weight estimation. The SEDAR 61 model took the numbers of fish and applied the length-weight relationship to estimate the weight of those fish.

There is a research track assessment ongoing right now for Gulf scamp, and it's SEDAR 68. The questions have come up of why have we traditionally used recreational landings in numbers, rather than in weight, and the reason for that is the numbers are essentially the native units of the MRIP program, and they are considered the most reliable measure of the landings.

In past assessments, it's been the accepted practice to go ahead and use the numbers of fish. However, we have a choice now, because weight estimates are now consistently provided for all MRIP recreational landings. However, I will note that the weight estimates are not available for the discards from recreational fisheries.

We can look into modeling recreational landings in weight, rather than in numbers, and this is being considered through the ongoing research track assessment. The advantage of this is that it would be more consistent with -- The OFLs and ABCs would be more consistent with the ACLs that are monitored in weight, but this will require an assumption about the CV around these estimates, because, if we apply large uncertainty, then we will still get disparities between our observed landings, whether they are in numbers or in weight, and what the model will predict, because the model is fitting many sources of information, including the recreational landings.

I will show you a few comparisons of the various weight estimation approaches. What you see here, and this is probably the most important slide in this presentation, is that, in black, the lowest values that you see here, it's actually the model estimates from SEDAR 61 of the weight of fish landed by the recreational fishery. The red line, green line, and blue line are all very similar to each other, and, in fact, nearly overlaid throughout most of the time series, and they are the MRIP weight estimates, the Southeast Fisheries Science Center weight estimates with the fifteen-sample minimum size threshold in green, and the Southeast Fisheries Science Center weight estimation with the thirty-estimate minimum sample size threshold.

In these very first years of the survey, there are some disparities in this different weight estimation approaches, and that's because there are relatively small sample sizes in those initial years, and there is more need to make decisions about aggregating to get to a meaningful sample size, but, after say 1990, these three different weight estimation procedures produce almost exactly the same estimate of the recreational landings of red grouper in weight.

The very different solution is from the SEDAR 61 model, which, again, is a function of putting the recreational landings into that model in numbers, using a length-weight relationship to estimate the weight of those landings, and then also allowing a very large uncertainty in the model, which allows the model to predict that the recreational landings were lower than what we observed. I hope that that explains the disparities that have been noted for red grouper.

In summary, red grouper are well sampled throughout the vast majority of the time series, and 78 percent of the total Southeast Fisheries Science Center weight estimates use the average weight from the two finest levels of stratification that we have available.

The difference in the landings estimates and weights between those predicted by the SEDAR 61 stock assessment model and those predicted by the Southeast Fisheries Science Center and MRIP weight estimation procedures is not a function of the weight estimation procedures applied. It's a function of how the recreational landings were input into the stock assessment model in numbers and how they were treated with a large uncertainty in the stock assessment model.

That is all that I had available, and so I'm very happy to take any questions that relate to our procedure, and I think that Richard Cody is online too to take questions about the MRIP weight estimation.

CHAIRMAN GUYAS: All right. Thanks to you both. Leann, I see your hand is up, and so what I want to do here -- Leann, we can take your question, but we've got to keep moving, I think, and so we'll take your question, and then we're going to go into the Amendment 53 presentation, so that we can get those under our belt before Full Council. Go ahead, Leann.

MS. BOSARGE: Thank you, Madam Chair. If you can just back up one slide, I had a question for Shannon and then one question for Richard here. For Shannon, that bullet that says 30 percent

of the -- Excuse, me, Dr. Cass-Calay. That bullet that says 30 percent at the species, region, year, state, model, wave, area level, then the next thing that happens after that is you drop the wave, and you're switching modes, and so how much -- Is it 70 percent then that doesn't get to that, and you're having to shift modes to try and pull the average weights? I am trying to figure what the reverse of that is.

DR. CASS-CALAY: I would have to -- Basically, we're talking about that kind of cumulative frequency, and so, 48 percent of the time, we have fifteen samples at the finest level of stratification.

MS. BOSARGE: Your fifteen samples includes the imputation?

DR. CASS-CALAY: It does. Then 30 percent -- After that first 48 percent, there's a further 30 percent of the time that we can get to the fifteen-minimum-sample threshold by dropping area.

MS. BOSARGE: I've got you. Okay. So there's this other, I guess, round about 50 percent of the time that we're having to maybe shift modes and to pull some average weights from a different mode, and a mode is either private rec or charter, and those are the modes, right?

DR. CASS-CALAY: I believe that is correct. I have Vivian online.

MS. BOSARGE: No, that's fine, and I'm pretty sure that's the mode, and so can we pull up that --

DR. CASS-CALAY: We drop wave first, because we drop mode, and so you see where it says 48 percent? That is the actual hierarchy of our stratification, and so, first, we would drop area, and then wave, and then mode.

MS. BOSARGE: All right, and so can we go to the background document? I am trying to be quick for Martha, and I'm sorry, Shannon, and I know she wants to get past this. If you go to page 3, scroll down so we can see 2017, please.

We had a graph, and highlight those first three rows in 2017 for me. This is Wave 1 for 2017, and I think this is kind of where the rubber meets the road, because we don't estimate landings by the year. We estimate rec landings by the wave, and this is why I kind of asked for the raw data, so I could see what we're really dealing with.

There is a column for 2017, and the next column says "1", and that's for the wave, and then you go over, and you can tell this is Florida, and then you get to this mode, charter versus private boat less than ten miles out and private boat greater than ten miles, and so call it federal versus state waters, although it's a little off.

You go over two more columns, and there's an eighteen and a zero and a zero. That is the actual samples that were taken for weights, sample weight for that mode. Now, the landings for that mode were 57,000 pounds for recreational landings, and they had zero samples of weights for the private sector, which the lion's share of the landings for red grouper are private sector versus charter, and it's private sector, and so that is what I am getting at in the uncertainty with these private rec numbers that we're looking at with our estimates that we're using right now for allocation purposes.

If you go to the next wave, Wave 2, and you look there, we had two samples for private rec in federal waters, and we had one sample for private rec in state, and so most of red grouper is in federal waters, but let's give them the benefit of the doubt, and let's put both of those sample sizes together, and it was three average weights that were used to generate the total landings for that wave, and I will just summarize it.

Wave 3 was -- I guess you would call it a good wave for sample weights, and we actually got about fifteen sample weights for the entire private rec landings in Florida, which is where most of them come from, and, when you start pulling from charter, when you have to get to the point where you didn't get enough samples that you're having to change modes and pull a weight from a different mode, I think that's where things probably start to get a little screwy.

Even in what's highlighted right here, you can see that -- These are in kilograms, but the top row highlighted, the charter, has an average weight of about 3.5 kilograms, and private has an average weight of about 2.7. Well, when you convert that to pounds, that's a pretty big difference.

If you go a little farther down on this page, you will see where charter has some samples that actually have it at an average weight of 7.7 kilograms, and then another one is 5.6, and so that's a twelve to fifteen-pound fish, versus the samples you're getting for the rec side are somewhere around five to seven pounds, or seven-and-a-half, somewhere in there, and so I think -- I'm going to come around to a point here, and you can come

off this screen, and if staff will pull up that spreadsheet I sent you, and I will show you that real quick, Martha, and I will be done.

What happens is the -- I appreciate the presentation, and I am feeling good about understanding what is driving these big differences between the MRIP-FES numbers that we have on the ACL monitoring database and the stock assessment, where you gave it some leeway to estimate what rec landings were, and it's almost always lower. Even when you estimate the rec landed more fish, it ends up less pounds, considerably, than what is on the ACL monitoring database.

If you go to that first tab, where it says, "rec average weights", that's the differences, and, now, I did that. That's my calculations, but I used you all's raw data and just did a straight average, and that's the difference in the average weights that MRIP comes up with for these fish versus the length-weight curve that's used as a different methodology in the stock assessment.

That's what is driving these big differences. Now, I'm not here to say which one is more accurate or less accurate, the point being the uncertainty that surrounds the MRIP-FES landings, and we have to take that into account when we start to use them in management to make certain decisions, and, now, I'm not talking about in the science side.

You gave it some leeway in that stock assessment, and you saw the uncertainty around those numbers too, and that's why you put that 0.3 CV in there, and that's what allowed that model to do what it needed to do and say, you know, some years, we really think the recs caught less fish, in numbers of fish, and some years they caught more, and it did that. It bounced around on both sides of the MRIP-FES landings, in numbers of fish.

However, when an average weight is applied to it, in all but two years, it gives you significantly lower landings than what we're using for allocation purposes, and you can see that on that next tab, that rec harvest difference. Staff, if you could click on the next tab, which is a pretty beefy one, and it's got a lot of data, but you can just focus in on the highlighted staff. Staff, if you can click on the next tab that says, "rec harvest differences", on that spreadsheet. Thank you.

That's fine, and you don't have to see it all at one time, but that gives you the numbers of fish that we put into the model and the numbers of fish that the model estimated, and you see

those years that are highlighted in yellow, and that's where the model said, hey, I think the recreational sector actually probably caught more fish than what MRIP-FES said they did, and so I put a "yes" out next to those, that, yes, the model estimated more, rather than less.

It would stand to reason that, if the model thought that they caught more fish, in numbers of fish, then their landings in pounds from the model should have been more than what was on the FES website, right, the FES landings. However, if you go over to that next column highlighted in yellow, and you see those "no", and, even though the model said they landed more fish, it didn't equate to greater historical landings in pounds, because of that average weight.

If you go over one more column, that difference between the MRIP-FES harvest and the expected harvest, that's what it is in pounds. We're talking about landings of rec, on MRIP, that is 3.5 million pounds, and the stock assessment says, well, it's probably closer to 1.7, and that's a 100 percent difference.

The percentages are out next to it, and they're big percentages, and, again, I don't know which method is better, but I just wanted to highlight this so that, when we get into this document in a second, we don't look at these numbers as if that point estimate is the gospel.

I think it has to be viewed in the same light as things that we talked about yesterday, where there is this sea of uncertainty around it, and that's somewhere in the middle of that sea, but you've got to give a little leeway, when you go to thinking about it, and use some common sense.

That was all I had to say. I really appreciate the presentation, and thank you for digging into this, both Dr. Cody and Dr. Cass-Calay, and it was an excellent presentation from both of you. Thank you.

CHAIRMAN GUYAS: Okay. Thanks, Leann. We've got about twenty minutes, and we have two presentations that we need to cover, so that we can potentially discuss red grouper in Full Council, and so I am going to turn it over to Dr. Freeman and Dr. Simmons to cover as much as they can on the Tab B, Number 9(b) presentation, and I am going to ask all committee members to please hold your comments, questions, motions, et cetera, regarding red grouper until Full Council, because we've got to get through these presentations.

AMENDMENT PRESENTATION: MANAGEMENT CONSIDERATIONS FOR USING INTERIM ABC ANALYSIS

EXECUTIVE DIRECTOR SIMMONS: Thank you, Madam Chair. I will go ahead and start with Tab B, Number 9(b). I have a very short presentation to explain why the 2020 interim analysis for red grouper can't be used for changing the catch levels that are in Reef Fish Amendment 53.

During the Reef Fish AP meeting, there was a lot of conversation and questions, and I think confusion, around how this relatively new tool could, and can, or should, be used.

There was a council motion, after the SEDAR 61 was completed and reviewed by the SSC and provided to the council in 2019, and that motion was to ask the Science Center to conduct an interim analysis of red grouper annually, starting in 2020, and that was really due to the fact that there was still a lot of concern about recruitment and vulnerability of the stock to red tide.

Just a reminder that the interim analysis uses the harvest control rule, where the acceptable biological catch from the assessment is used, and what we're doing right now -- What's being used is the 4.9 million pounds gutted weight that was recommended by the SSC in September of 2019, and that is currently based on the sector allocations of the 76 percent commercial and 24 percent recreational. This ABC is in the MRIP-FES units, and this analysis also assumes that the future catch projections, in 2019 landings, will be equal to the total ACL.

If you look at the range of alternatives that the council is currently considering in Reef Fish Amendment 53, you can see that the 4.9-million-pound gutted weight ABC is not the council's current preferred alternative, and it is based on the sector allocations that are currently on the books, the 76 percent commercial and 24 percent recreational.

This would not -- The current interim analysis would not take into account the preferred alternative the council is considering or the other range of alternatives the council is considering, and so, essentially, if we were to update the document and use these, we would be asking the Science Center to conduct one more interim analysis, potentially, and then running it through, I believe, back through the stock assessment to estimate the OFL.

Until the council decides on sector allocations and the

corresponding catch advice that goes with those from the stock assessment, the interim analysis should not be used to modify catch advice. Instead, we could use this tool as a health check, as I think was the intent and spirit of the council when they passed this motion, and the Science Center has indicated that they could provide updated indices of abundance annually, without catch recommendations.

Then, once the council has selected allocations and the corresponding catch advice, then those interim analyses can be updated to include that new catch advice, and the council can act on that, either through a framework action or perhaps another vehicle that we might be able to develop in the future where we can implement management changes more quickly. Madam Chair, thank you.

CHAIRMAN GUYAS: Thanks, Dr. Simmons. Dr. Freeman, do you want to pull up the amendment presentation, really quick, and just remind everybody where we are with red grouper?

DR. MATT FREEMAN: Certainly. If you don't mind, the AP made a motion that ties into Dr. Simmons' presentation, if you don't mind me just discussing that very quickly.

CHAIRMAN GUYAS: Sure.

DR. FREEMAN: Okay. So this was a motion that the AP made following the presentation on Reef Fish 53. As noted, this was a new presentation by Dr. Simmons, and so this was a discussion by the AP sort of in lieu of that, and they made a motion to modify the Reef Fish and CMP Fishery Management Plans to automate catch advice based on interim analysis. That motion carried with no opposition.

Again, following some of that AP discussion, that's part of why Dr. Simmons prepared this presentation, to provide some additional explanation of how that interim analysis could be used by the council. We'll go ahead, at this point, if it's fine with you, and go into the presentation for Amendment 53.

CHAIRMAN GUYAS: Sounds good.

DR. FREEMAN: The purpose and need statements, I did want to let the council know that we have modified, the IPT, the language of both the purpose and the need slightly since you all last saw this in January.

I will start with the need statement first. Here, in that

second line, we added the language "and ACT", and so both of the modifications to the purpose and need statements were just to thoroughly address what Action 2 is accomplishing with that ACL/ACT buffer. Previously, it had said "to establish Gulf red grouper sector allocations and ACLs", and so we added the language "and ACTs".

In the purpose statement, in that third line, where you've got the word "and", we previously had "and the total and sector ACLs". To encompass the ACLs, as well as the ACTs, we changed that to "and to modify the allowable harvest of red grouper". I just wanted to point that out, that the IPT did tweak that language a little bit, like I said, just to make sure that we were encapsulating what Action 2 is going to accomplish.

If we go to the next slide, you all have seen this at several council meetings at this point, and so, for the sake of time, I will just note that, again, the SSC has reviewed the OFL and ABC under Alternatives 2 through 5. Alternative 6, which was requested by the council at the last meeting, the SSC has not reviewed any estimates of OFL and ABC from that.

As I mentioned, the council did select preferred alternatives for both actions at the last meeting, and, also, they requested development of a new alternative, Alternative 6, and I will cover that in just a moment. The Reef Fish AP did discuss this, at its February meeting, and they made motions related to both actions, and I will discuss those at the end of the presentation.

Alternative 1, which is no action, again, these first several alternatives, 1 through 5, you all have seen multiple times, and so I'll try not to go into too much detail at this point, and this would hold the allocation at 76 percent commercial and 24 percent recreational. However, it's not legally viable, because it is not based on the best scientific information available.

Alternative 2 would maintain those sector allocations at 76 percent commercial and 24 percent recreational. However, it would be revising the OFL and ABC based on SEDAR 61. Preferred Alternative 3 would modify the allocations to 59.3 percent commercial and 40.7 percent recreational, again revising the OFL and ABC based on SEDAR 61.

Alternative 4 would modify the allocation to 60.5 percent commercial and 39.5 percent recreational, again revising OFL and ABC based on SEDAR 61. Alternative 5 would revise it so that the allocations wind up being 59.7 percent commercial and 40.3

percent recreational, and, again, revising OFL and ABC based on SEDAR 61.

This is the new alternative that was requested at the January meeting. Here, it was asked that the commercial ACL be retained at 3.16 million pounds gutted weight. In doing so, that would result in a 68.7 percent commercial and 31.3 percent recreational allocation. The OFL and ABC would be revised, so to retain that commercial ACL.

Again, this table is not new to the council. The only addition is that last row for Alternative 6. In this case, OFL would be 5.03 million pounds gutted weight, and the ABC would be 4.6 million pounds gutted weight. Again, we're holding ABC and total ACL equal to each other for Alternatives 2 through 6. With the commercial ACL being held at 3.16 million pounds gutted weight, the recreational ACL would wind up being 1.44 million pounds gutted weight.

This is a new table that the council has not seen before. We have had a similar table in Action 2 that Jeff Pulver from the Southeast Regional Office had prepared and previously presented to the council, but we wanted to have this prepared for the council, and it's in the document as well.

As a reminder, for the commercial sector, they are harvesting to the commercial ACT. For the recreational sector though, they are harvesting to their recreational ACL, and they are only harvesting to the recreational ACT when a post-season accountability measure is triggered, and so, assuming no post-season AM is triggered, this table shows the predicted closure dates for the recreational ACL. In the case, under the current preferred Alternative 3, that closure date would be December 19.

Action 2, again, Alternative 1 is no action, and these are for the ACL/ACT buffers. The commercial would be retained at 5 percent, and the recreational would be retained at 8 percent.

For Alternative 2, the commercial buffer would be zero percent, and the recreational buffer is 9 percent, and that's applying the ACL/ACT Control Rule. Preferred Alternative 3 is a combination of the previous two alternatives, and so the ACL Control Rule would be applied to the recreational sector, for a 9 percent buffer, while the current buffer would be retained for the commercial sector of 5 percent, and that was suggested previously to account for multiuse with gag and red grouper.

This shows the combination of commercial and recreational ACTs

based on the selections from Action 2 and Action 1, and so, taking the current council preferred alternatives, the commercial ACT would be set at 2.4 million pounds gutted weight, and the recreational ACT would be set at 1.57 million pounds gutted weight.

As mentioned, this table the council has seen before, and it shows the predicted closure dates based on the recreational ACTs. The combination of the current preferred alternatives is highlighted. In this case, it's Alternative 3 from both Action 2 and Action 1. What this shows is that, if a post-season accountability measure were triggered, and the recreational sector were then to harvest only to its ACT, then the predicted closure date would be November 16.

Following this, and as I mentioned during the action guide, there was the motion from the January council for staff to take the document to public hearing. However, there was the request for the new alternative to Action 1, and so that requires some further work before we will prepare it for public hearing.

Then additional steps are contingent upon council motions, which could include SERO sending a Notice of Availability for the DEIS, and, before I discuss the two Reef Fish AP motions related to Action 1 and Action 2, if it's okay with you, Madam Chair, Ms. Muehlstein is prepared to very briefly discuss how we would solicit public comments on this document, and so I will hand it over to her.

CHAIRMAN GUYAS: All right. Thank you. Emily, we've got three minutes to cover all this.

MS. MUEHLSTEIN: All right. I will do it. Based on the conversation that we had during our January council meeting, we are planning to make a dedicated effort to gather public comment on this which exceeds what we would normally do, and really try to gather as much testimony as we can while continuing to avoid some of the risks of pandemic.

Just briefly, what we have planned is to complete a direct mail to commercial and charter/headboat permit holders, and we've also worked with the folks at Fish Rules, and they have agreed to send a push notification to all reef fish regulation readers and to add an in-app message for Gulf regulation viewers. This will target the private angling component of the fishery directly. Then, just to sort of give you an idea, there's about 25,000 views of Gulf federal regulations that occurred last May, and so we can expect that about 25,000 private anglers would get

a direct notification through that app.

We'll also host webinars, and we will create social media content, as well as video content, and then, since we're planning a hybrid June meeting, this would give anglers the opportunity to provide public comment in-person before final action is taken. Thanks.

CHAIRMAN GUYAS: Thanks, Emily.

REEF FISH AP RECOMMENDATIONS

DR. FREEMAN: Madam Chair, I will discuss the two Reef Fish AP motions related to the two actions. I will start with Action 2, and that one is a little bit easier to get through. The Reef Fish AP made a motion to consider the proposed Action 2, Alternative 3 the preferred. That motion carried with no opposition, and so that is also the council's current preferred alternative for Action 2.

For Action 1, the Reef Fish AP did not select a preferred. However, they did make a motion to add another alternative to Action 1 that would set the commercial ACL at 3.00 million pounds gutted weight, and that motion carried with no opposition.

While it's not in the summary, I do think it's relevant to note that this motion -- There was a motion to make it the preferred alternative. However, that motion failed for lack of a second, and there was also a motion to make Alternative 4 the preferred alternative. However, that also failed for lack of a second, and so, again, I just wanted to provide the council with some of the additional discussion that took place, and so I will stop there, Madam Chair, and let you help field questions.

CHAIRMAN GUYAS: All right. Thanks, Dr. Freeman, and thanks to everybody for pulling through that so quickly. The Chair was gracious enough to grant us this extra time this morning, and I think we've more or less pushed the limit of that, at this point, and so, at this point, I would suggest that we take questions, comments, et cetera, motions -- That we handle those things in Full Council.

There's a couple other things on our Reef Fish agenda that I don't think we're going to be able to cover today. I am not sure if the DESCEND stuff is time sensitive, and I know, Leann, you had a discussion about historical captains under Other Business. I'm hoping, if those are time sensitive, we could

pick those up in Full Council. Otherwise, the other items, we can pick those up at a subsequent Reef Fish Committee meeting. Thanks, everybody, and thank you, Mr. Chair, for the extra time today.

(Whereupon, the meeting adjourned on April 14, 2021.)

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