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GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

MEETING OF THE STANDING & SPECIAL REEF FISH, SOCIOECONOMIC & SHRIMP SCIENTIFIC AND STATISTICAL COMMITTEES

GMFMC Office Tampa, Florida

MAY 10-11, 2022

STANDING SSC VOTING MEMBERS

- James Nance.....
- Luiz Barbieri.....
- Harry Blanchet.....
- David Chagaris.....
- Benny Gallaway.....
- Douglas Gregory.....
- David Griffith.....
- Paul Mickle.....
- Trevor Moncrief.....
- Will Patterson.....
- Sean Powers.....
- Jim Tolan.....
- Richard Woodward.....

SPECIAL REEF FISH SSC VOTING MEMBERS

- Jason Adriance.....
- Michael Allen.....
- John Mareska.....

SPECIAL SHRIMP SSC VOTING MEMBERS

- Donald Behringer.....
- Peyton Cagle.....
- Jason Saucier.....

SPECIAL SOCIOECONOMIC SSC VOTING MEMBERS

- Luke Fairbanks.....
- Cynthia Grace-McCaskey.....
- Jack Isaacs.....

STAFF

- John Froeschke.....Deputy Director
- Jessica Matos.....Document Editor & Administrative Assistant
- Ryan Rindone.....Lead Fisheries Biologist/SEDAR Liaison
- Bernadine Roy.....Office Manager
- Carrie Simmons.....Executive Director

OTHER PARTICIPANTS

- Steven Atran.....FL

1 Shannon Calay.....SEFSC
2 Judd Curtis.....SAFMC
3 Michael Drexler.....Ocean Conservancy
4 Tom Frazer.....GMFMC
5 Peter Hood.....NMFS
6 Patrick Lynch.....NMFS
7 Skyler Sagarese.....SEFSC
8 Eric Schmidt.....FL
9 C.J. Sweetman.....FWC
10 Mike Travis.....NMFS
11 Bob Zales.....Panama City, FL

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PAGE 70: Motion that the council request that the SEFSC develop the sigma min using the Ralston et al. 2011 method for Gulf of Mexico Tier 1 (data rich) stocks. [The motion carried on page 77.](#)

PAGE 78: Motion that the SSC recommends that the council request that the SEFSC evaluate the potential for setting ABC at 75 percent of FMSY, or its proxy, without exceeding OFL, as outlined in Appendix A of the Restrepo et al. 1998 report for Tier 1 stocks. [The motion carried on page 90.](#)

PAGE 90: Motion that the SSC recommends the Gulf Council request a management strategy evaluation to better account for scientific uncertainty, including imprecision and bias issues, in reducing ABC from OFL estimated or projected from data-rich Gulf stock assessments. Approaches to be considered should include those of Restrepo et al. (1998), Ralston et al. (2011), and Privitera-Johnson and Punt (2020) among others. [The motion carried on page 93.](#)

PAGE 102: Motion that the SSC recognizes the importance of the potential to increase the ABC buffer as the stock biomass decreases below MSY or MSY proxy, even when above the 50 percent level of MSST. [The motion was withdrawn on page 108.](#)

PAGE 187: Motion for the council to consider adding representatives from the Gulf SSC to the South Atlantic SSC workgroup in an effort to develop a cooperative workgroup focused on establishing a method for evaluating catch limits for federally managed species currently closed to harvest, including southeastern U.S. goliath grouper. [The motion carried on page 190.](#)

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1 The Meeting of the Gulf of Mexico Fishery Management Council
2 Standing and Special Reef Fish, Special Socioeconomic & Special
3 Shrimp Scientific and Statistical Committees convened on Tuesday
4 morning, May 10, 2022, and was called to order by Chairman Jim
5 Nance.

6
7 **INTRODUCTIONS**
8 **ADOPTION OF AGENDA**
9

10 **CHAIRMAN JIM NANCE:** Good morning, my name is Jim Nance, and I am
11 the chair of the Scientific and Statistical Committee for the Gulf
12 of Mexico Fishery Management Council. We appreciate your
13 attendance on this webinar and input in this meeting.
14 Representing the council is Tom Frazer. He's not here yet, but,
15 when he gets here, we'll appreciate his being here.

16
17 Council Staff in attendance include Carrie Simmons, John
18 Froeschke, Ryan Rindone, Jessica Matos, and Bernie Roy. Notice
19 of this meeting was provided to the Federal Register, sent via
20 email to subscribers of the council's press release email list,
21 and was posted on the council's website.

22
23 This meeting will include the following topics: Presentation on
24 National Standard 2 and the Best Scientific Information Available;
25 Discussion on the Acceptable Biological Catch Control Rule; Update
26 of the Number of Gulf Shrimp Permits, Economic Estimates, and Royal
27 Red Landings; Review the Southeast Fisheries Science Center
28 Analysis of Red Grouper Stock Assessments Using Alternative Marine
29 Recreational Information Program Landings Data; Discussion of
30 Goliath Grouper; and Review of Terms of Reference for State Reef
31 Fish Survey Run of SEDAR 72 Model for Gag Grouper.

32
33 This webinar is open to the public and is being streamed live and
34 recorded. A summary of the meeting and verbatim minutes will be
35 produced and made available to the public on the council's website.

36
37 Webinar attendees, to signal you wish to speak during the meeting,
38 please use the raise-your-hand function, and the staff will display
39 your name. Please remember to identify yourself before speaking
40 and also to re-mute your line each time you finish speaking. A
41 digital recording is used for the public record, and, therefore,
42 for the purpose of voice identification, we will call attendance
43 for the SSC members, including those attending virtually and here
44 in the meeting. Please identify yourself by stating your full
45 name when your name is called for attendance. Once you have
46 identified yourself, please re-mute your line, or turn your
47 microphone off, in this case. We'll go ahead and start on my left.

1 **MR. RYAN RINDONE:** Ryan Rindone, Gulf Council staff.
2
3 **DR. SHANNON CALAY:** Shannon Calay, Southeast Fisheries Science
4 Center.
5
6 **DR. PAUL MICKLE:** Paul Mickle, Northern Gulf Institute.
7
8 **MR. JOHN MARESKA:** John Mareska, Reef Fish SSC.
9
10 **DR. JIM TOLAN:** Jim Tolan, Standing SSC.
11
12 **MR. JASON ADRIANCE:** Jason Adriance, Reef Fish SSC.
13
14 **DR. JACK ISAACS:** Jack Isaacs, Socioeconomics.
15
16 **DR. RICH WOODWARD:** Rich Woodward, Standing SSC.
17
18 **MR. JASON SAUCIER:** Jason Saucier, Special Shrimp.
19
20 **MR. TREVOR MONCRIEF:** Trevor Moncrief, Standing SSC.
21
22 **MR. DON BEHRINGER:** Don Behringer, Special Shrimp.
23
24 **DR. DAVID CHAGARIS:** David Chagaris, SSC.
25
26 **DR. DAVID GRIFFITH:** David Griffith, SSC.
27
28 **DR. CINDY GRACE-MCCASKEY:** Cindy Grace-McCaskey, Socioeconomic
29 SSC.
30
31 **DR. SEAN POWERS:** Sean Powers, Standing SSC.
32
33 **DR. LUIZ BARBIERI:** Luiz Barbieri, Standing SSC.
34
35 **CHAIRMAN NANCE:** Now let's go ahead and do the ones that are
36 online, Jessica, please.
37
38 **MS. JESSICA MATOS:** Harry Blanchet.
39
40 **MR. HARRY BLANCHET:** Harry Blanchet, Standing SSC.
41
42 **MS. MATOS:** Benny Gallaway.
43
44 **DR. BENNY GALLAWAY:** Benny Gallaway, Standing SSC.
45
46 **MS. MATOS:** Doug Gregory.
47
48 **MR. DOUG GREGORY:** Doug Gregory, Standing SSC.

1
2 **MS. MATOS:** Will Patterson.
3
4 **DR. WILL PATTERSON:** Will Patterson, Standing SSC.
5
6 **MS. MATOS:** Luke Fairbanks.
7
8 **DR. LUKE FAIRBANKS:** Luke Fairbanks, Special Socioeconomic SSC.
9
10 **MS. MATOS:** Mike Allen.
11
12 **DR. MIKE ALLEN:** Mike Allen, Reef Fish SSC.
13
14 **CHAIRMAN NANCE:** Okay. Perfect. Thank you, and I appreciate all
15 of those in attendance online, and certainly we have a good group
16 here in the meeting, and it's nice to be able to see faces again
17 and be able to interact, and so thank you for coming.
18
19 We'll go through the approval of the verbatim minutes. Any changes
20 or recommendations for those minutes? Let's go ahead and do the
21 adoption of the agenda, and so are there any modifications for the
22 agenda? Matt, I know you have one. We're going to have, underneath
23 Other Business, volunteering for the EDM model for the shrimp
24 assessment, and we'll look for some SSC members to volunteer for
25 that, and that will be under Other Business. Is there anything
26 else we need to add for the agenda? Hearing none, is there any
27 motion to adopt the agenda?
28
29 **DR. BARBIERI:** So moved, Mr. Chairman.
30
31 **CHAIRMAN NANCE:** Do we have a second?
32
33 **DR. CHAGARIS:** Second.
34
35 **APPROVAL OF VERBATIM MINUTES AND MEETING SUMMARY: MARCH 8-10,**
36 **2022 MEETING**
37
38 **CHAIRMAN NANCE:** Okay. Second by Dave. Any opposition to the
39 adoption of the agenda? Seeing none, the agenda is adopted.
40 You've each had an opportunity to look over the minutes, and I'm
41 going to do both of them together, the minutes and the meeting
42 summary. Any changes to either one of those two documents?
43 Hearing none, is there a motion to approve the minutes and the
44 meeting summary?
45
46 **DR. BARBIERI:** So moved, Mr. Chairman.
47
48 **CHAIRMAN NANCE:** Okay. Thank you, Luiz. Is there a second?

1
2 **DR. CHAGARIS:** Second.
3

4 **SELECTION OF SSC REPRESENTATIVE FOR THE JUNE 21-24, 2022 GULF**
5 **COUNCIL MEETING IN FORT MYERS, FLORIDA**
6

7 **CHAIRMAN NANCE:** Dave, thank you. Any opposition to the approval
8 of the minutes and the meeting summary? Okay. There looks like
9 there was no opposition to that. The scope of work, we're going
10 to probably, Ryan, instead of going through that, we'll do it
11 before each of the agenda items. Item Number IV, I have talked to
12 Luiz, and I talked to Carrie a little bit, and I think, just for
13 consistency, I think I will just make it where I will go to the
14 council meeting and represent the SSC, and I think, from a
15 continuity standpoint, I think that would be good.
16

17 If there is a chance that I won't be going, we'll look for other
18 representation for those council meetings, and so we probably won't
19 have this item on the agenda in the future.
20

21 Item Number V, we'll do the -- We have a presentation on National
22 Standard 2 and the Best Scientific Information Available, and we
23 have Dr. Patrick Lynch here to be able to do that. Ryan, would
24 you please go over the scope of work for that item?
25

26 **PRESENTATION: NATIONAL STANDARD 2 AND THE BEST SCIENTIFIC**
27 **INFORMATION AVAILABLE**
28

29 **MR. RINDONE:** Sure. Thank you, Mr. Chair. Dr. Lynch is from NMFS
30 Headquarters, and he's going to provide a brief overview of
31 National Standard 2 of the Magnuson-Stevens Fishery Conservation
32 and Management Act, which is the law that governs a lot of what we
33 do as part of this whole council management process, and,
34 specifically, he's going to detail National Standard 2, which talks
35 about the requirements for NMFS and the councils' use of best
36 scientific information available when recommending management
37 measures for fisheries, and so this is a good opportunity for the
38 SSC to ask questions of Dr. Lynch, as appropriate.
39

40 **CHAIRMAN NANCE:** Thank you. Dr. Lynch, go ahead, and we'll turn
41 the time over to you for the presentation.
42

43 **DR. PATRICK LYNCH:** All right. Hi, everybody. Thanks for the
44 invite. It's good to be here, and it's been two years and two months
45 since I've been on a plane, and so I appreciate that. Okay.
46 Diving right in, I gave this presentation at a MRIP transition
47 workshop back in February, I think. Luiz saw it, and he thought
48 it would be good to come down and talk to you all.

1
2 Actually, it's not as much on NS 2, and I'll touch on it, but it's
3 more about achieving BSIA, which is related, but we wrote a little
4 framework for that. Okay. Here we go. The first slide is the
5 takeaways, everything we need to know, and this is the one to pay
6 attention to, I guess.

7
8 We have the law, National Standard 2, and it mandates BSIA. There
9 was a document, a NMFS procedure, back in I want to say 2016, that
10 documented all the regional frameworks, your SEDARs and the like
11 around the country, and showed that each of those is NS 2 compliant
12 for ensuring BSIA is used for management, and so no news here.
13 There are multiple data streams that come into stock assessments,
14 and they can all be on the table, and the other advice-driven
15 processes, and so our regional framework needs to be apply
16 consistently to all the information on the table, and that could
17 be data, data streams, assumptions made, the models, and all that
18 stuff should be run through the BSIA framework consistently.

19
20 If you do that through a peer review process, then the peer review
21 should be scoped according to how much new information, or new
22 assumptions, are being made, and so you don't necessarily to do as
23 rigorous of a process with minimal changes from the previous
24 analysis.

25
26 You end up with a final accepted approach, eventually, and, if it
27 runs through the BSIA framework, that's where we say that the
28 management is based on the best scientific information available,
29 and so it's not saying reviewing individual datasets, or individual
30 sample designs, or models or whatever, to say that those particular
31 things are BSIA, but it's more that, when you do management, and
32 you run all that through the same framework consistently, then the
33 management is based on BSIA, and we get into a little linguistic
34 complication here, when we start saying, you know, this survey or
35 whatever provides BSIA.

36
37 Part of that reason is you might use -- The survey, for example,
38 if you use that example, might be appropriate for one species, but
39 maybe it doesn't have the coverage for another species, and so
40 it's not that in one case you're using it and one case you're not,
41 and so you wouldn't want to say that survey provides BSIA.

42
43 I linked to some documents here. There's the NS 2 Guidelines,
44 which NMFS put out for implementing NS 2, and that description of
45 the peer review process that I was mentioning, and then the focus
46 here is mostly on the middle one, on the BSIA framework that we
47 developed as a procedural directive in this.

1 Okay, and so, if we dive into NS 2 Guidelines, again, we're not
2 really going to -- I wasn't going to dwell on this too much, and
3 this basically laid out the criteria that should be used when
4 evaluating scientific information, and so it lists those here,
5 from relevance down to peer review, and so that should be in
6 people's minds when we're dealing with science, and I'm not going
7 to go through those one-by-one.

8
9 We followed up those NS 2 Guidelines with this procedural
10 directive, and it's meant to be complementary, and it doesn't
11 define new criteria. What it does is it tries to lay out just a
12 general framework, and we know that each region has its unique
13 idiosyncrasies, for good reason, and so the idea is to provide
14 some general bounds and process around that, to basically say,
15 okay, we know what the criteria are, but who does what and when do
16 they do it, and that's kind of what we're laying out here.

17
18 That's just consistency and transparency is the goal there, and
19 it's from a stock assessment standpoint, and so the steps here are
20 from stock assessment, peer review, revising the assessment, what
21 the SSC and NOAA do before the council develops its catch
22 specifications, and then coming back to NOAA Fisheries for final
23 approval and essentially certifying that the management is based
24 on BSIA.

25
26 We're looking at that framework. The stock assessment step,
27 everybody knows what a stock assessment is, and the framework
28 covers from data-limited to comprehensive, and so it's not specific
29 to a type of assessment, and the idea, of course, is that the
30 assessment is established and guided by its terms of reference,
31 and so that should put the bounds on the type of analyses that are
32 being done.

33
34 Once an assessment is drafted, I guess, it goes through the peer
35 review process, which that one paper laid out as our NS-2-compliant
36 processes, and so, again, building in all the data and all the
37 analyses. The communication products, the presentations and the
38 report, anything that might come in from outside the traditional
39 assessment process, all of that should be in there together,
40 running consistently through peer review, and, again, the peer
41 review itself will have a terms of reference that bounds what it
42 is reviewing.

43
44 Looking at all the technical details, these can be taken
45 individually, and so looking at stock status determination, and do
46 the technical -- Does the science support that, and looking at the
47 catch and control rule specifications themselves, and so are the
48 projections supported by the science?

1
2 You might arrive at some of these and not others. You may say,
3 okay, this is good for an overfishing determination, but not an
4 overfished determination, and so, again, you have something like
5 the BSIA framework that is not saying something is BSIA for a
6 specific purpose, but, when it moves through that framework, and
7 is appropriate for a purpose, then you can be confident that
8 management is based on it.

9
10 The assessment is done, and there is some sort of peer review, and
11 then the authors are revising it, and so they respond to the peer
12 review, and, of course, they don't have to take -- This is
13 scientific judgment and expert opinion about how you use the peer
14 review and adapt the assessment, and so this should be well
15 coordinated. This is where the SSC and NMFS should be
16 communicating, and the SSC should be involved in knowing how NMFS
17 is responding to peer review, and, again, there's a terms of
18 reference here, and so, while good recommendations might come from
19 peer reviewers, it doesn't mean that it's within the scope for how
20 much change can happen in an assessment, and so it has to be held
21 to some bounds.

22
23 Okay, and so we've moved through revising the assessment, and this
24 is where the SSC and NOAA Fisheries coordination becomes key. The
25 SSC should be reviewing the peer review and the assessment at that
26 point, looking at the package that's come forward, and then making
27 -- Using it to make their ABC recommendations.

28
29 In part of that, it should be looking at the process that was
30 taken. Did those first three steps -- Was that taken
31 appropriately, and, in this case, the SSC can feel confident that
32 they're moving consistently with the BSIA framework, and so, when
33 the SSC makes an ABC recommendation, the assessment results come
34 to a Headquarters database, and they are entered there, and that
35 record is locked, when NMFS Headquarters communicates with the
36 assessment authors, or the POC in the Science Center and determines
37 that it's locked.

38
39 In this case, there is an implicit determination by NMFS that,
40 okay, these assessment results are consistent with BSIA, and so
41 NMFS uses the assessment to make a stock status determination.
42 That's kind of a key point that gets messed up from time to time,
43 that it's actually NMFS' Sustainable Fisheries Office that makes
44 the status determination, and it's not an assessment author or a
45 peer review panel or an SSC or a council. This is a NMFS final
46 decision.

47
48 Okay, and so that gets us there, and there is this bullet here

1 about NMFS establishes a POC to the SSCs to facilitate and address
2 concerns, and this recommendation was in there, and I think it was
3 a good idea at the time, and there are a few of these situations
4 out there, where NMFS has a liaison working with the SSC, and I'm
5 not sure how it works all over, and it's not supposed to be somebody
6 who sits on the SSC, but someone representing the Science Center
7 and NMFS, and it's to help facilitate this BSIA process, talk about
8 concerns, maintain good communication, but we've got to recognize
9 that there's a capacity issue here. I don't know if all the
10 Centers can afford a full person to be doing this, but it's there,
11 and it could be helpful.

12
13 After all that, councils develop their specifications, or ACLs,
14 and then it comes back to NMFS for approval, and so, in the end,
15 NMFS is saying, okay, these are the management measures, and, when
16 accepting that, it's a formal assertion, or certification, that
17 management is based on BSIA, and so you hear a lot on the process
18 that this is BSIA, and various groups are stamping it as approval,
19 but, in the end, it's when the management is in place that that
20 certification is made.

21
22 That's the last slide, and we're just summarizing here, and we
23 have this procedural directive in place. It establishes this
24 framework, and the procedural directive called for this framework
25 to be done by May of 2022, and so here we are, and all the regions
26 are supposed to have worked with their councils, Regional Offices,
27 and Science Centers together to come up with a framework.

28
29 I think we actually are in a pretty good shape. The last time I
30 looked, we have a couple that are done, and a lot of them, and I
31 believe the Southeast, are with the council to review, and so we
32 should be hitting the finish line on most, if not all, these
33 regional frameworks, and, if that's not the case, please let me
34 know.

35
36 Okay, and the whole purpose is to have a good, open, transparent
37 and consistent process and to ensure BSIA is used for management,
38 and, of course, there's a highlight down here, and this was
39 particularly meant for the transition, MRIP transition, workshop,
40 and it's just a single element data series model is not, in itself,
41 BSIA. Okay, and so I think that's it. Yes, that's the last of
42 it, and I'm happy to have some discussion.

43
44 **CHAIRMAN NANCE:** Thank you. Any comments or questions from the
45 SSC? Ryan, please.

46
47 **MR. RINDONE:** I just wanted to note something that you guys have
48 been doing with the stock assessment reviews for the last few years

1 now, and you might remember, back in July and August of 2020, you
2 initially had a lot of the discussions with the Office of Science
3 and Technology about the Marine Recreational Information Program
4 and the Fishing Effort Survey estimates, and, since that point,
5 and since the use of that survey in the stock assessments, you
6 guys haven't had a blanket endorsement of the survey, but rather
7 you have reviewed the individual assessments as a package, and you
8 approve, or recommend, that the completed assessment does or does
9 not represent the best scientific information available.

10
11 As far as the SSC's performance with respect to the approval of
12 science products for use in management, I would think that your
13 performance has been in keeping with what Dr. Lynch has been
14 presenting, as it relates to the stock assessments.

15
16 **CHAIRMAN NANCE:** Thank you, Ryan. Trevor.

17
18 **MR. MONCRIEF:** I have a quick question, since we covered the
19 transition group stuff and the surveys, and so I've got the
20 policies and procedures that you provided, and one of them is the
21 rec survey certification and implementation, and are these
22 policies for strict adherence when it goes through review? In
23 other words, when review happens, if one of these elements is not
24 met, it would be deemed as unsatisfied?

25
26 **DR. LYNCH:** You're asking a good question, and I have specifically
27 stayed out of the whole MRIP realm, and so we have another division
28 at S&T that Richard Cody and company cover that specifically, and,
29 as I understand, that discussion continues, right, and they
30 continue to evaluate the surveys.

31
32 They're doing another study, I think, at some point, to evaluate
33 them again, and so I don't think -- You know, the policies are set
34 up for a reason, and I've got to say that I'm not sure, beyond
35 that, where it's headed, and I know that it's going to involve a
36 lot of objective review still, and continued working with the folks
37 involved, and I can't give a detailed answer though, I'm afraid.

38
39 **MR. MONCRIEF:** All right. Well, I mean, I think, since we're going
40 down this road right now, and, by the end of it, we're going to
41 expect to be done, and not revisiting a given thing, I mean, I
42 think it's fairly known, at this point, some of the objectives, at
43 least that our states have to it, and, let's see, I will point you
44 this way, right, and there's the flow of logic.

45
46 In order to go through what you said, we've got to go through rec
47 survey certification and implementation. In order to go through
48 the rec survey implementation and certification, we have to meet

1 the MRIP data standards, and one of the MRIP data standards is
2 adherence to the PRA, and the PRA itself, as many folks have noted,
3 is pretty much to handcuff the federal system to not be able to
4 ask more questions and not be able to provide flexibility or
5 anything like that, which the state surveys can do.

6
7 I don't want to get all the way down this road, and, all of a
8 sudden, someone's hands get thrown up at the end by saying, oh,
9 well, we need to go through this process in order to finish,
10 because the whole goal has been flexibility within the surveys and
11 to do things outside of how it's been established, and so I know
12 that's probably not a question for you, but, as long as you have
13 it in your head that, at the end of this process, that question
14 gets raised, and you'll have an idea of why that has been in
15 question.

16
17 **DR. LYNCH:** Thanks, and that's a good point, and it's not a great
18 question for me, but I talk to the folks who it is a great question
19 for, and so I'll bring it back, and we have meetings once in a
20 while, just generally, and I will bring it up, and I know they've
21 heard it, but to say that it came up here is valuable.

22
23 I will say -- One thing I will say on the point, just high level,
24 is, for efficiency, it tends to be good to review methods, because,
25 once you get a method reviewed, people are comfortable with it,
26 whether it's any data collection or analysis platform, and it
27 should be held to less scrutiny in the review process though.
28 Things should move more efficiently, and you wouldn't have to
29 revisit, every time, how it's designed and how it's implemented.

30
31 **CHAIRMAN NANCE:** Thank you. Benny.

32
33 **DR. GALLAWAY:** From time to time, in recent meetings, we've been
34 asked to designate certain datasets, or models, as BSIA, and has
35 that been inconsistent with what we're hearing now, and should we
36 not be doing that, or is there another -- Am I missing the point?

37
38 **DR. LYNCH:** That's a good question, and I think that's a big part
39 of why I came down here. I don't think we should be calling
40 specific things BSIA, or reviewing them to say is this BSIA, and,
41 I mean, that's part of the lingo, and we can't avoid it, and I
42 think we're not consistent in NMFS in the way we talk about it, at
43 any level really, and only four of us wrote this procedural
44 directive, and so we were well coordinated, but I don't think we've
45 had the big full NMFS discussion so that everybody can get on the
46 same page with language, but I don't personally think that we
47 should be talking about a specific element as BSIA, because then
48 you set yourself up for the next time you want to use it might not

1 be appropriate, and now somebody has said it's BSIA, and so you've
2 created a conflict that may not be worth having.

3
4 **DR. GALLAWAY:** If we're asked to choose between datasets as being
5 more appropriate, should we use -- Is there another term that we
6 should be using, or how do we -- When asked to make that decision,
7 how do we characterize that decision with a name, or does it need
8 a name? Do we say these are the best available data for that
9 purpose and leave it at that, or what?

10
11 **DR. LYNCH:** I think -- I mean, if we want to be wordy, you can say
12 we see this as, like you said, the best available data for this
13 purpose. One of the ways we've been saying it is that something
14 is consistent with BSIA, and, in saying that, that means it's part
15 of the -- It's been evaluated in an appropriate way, and
16 consistently with how everything else is evaluated.

17
18 **DR. GALLAWAY:** Excellent. Thanks.

19
20 **CHAIRMAN NANCE:** Thank you, Benny. Luiz.

21
22 **DR. BARBIERI:** Thank you, Mr. Chairman. Thank you, Patrick, for
23 coming down and giving this presentation. I mean, this has been
24 a very contentious, I would say, at times, issue for us, just
25 because, like I said, not everybody being on the same page and
26 having a common understanding of what we are talking about here,
27 and so a couple of questions, or, first a statement.

28
29 I think one of the very helpful things about this presentation and
30 your perspective on this is that we do this assignment of BSIA to
31 specific databases all the time, and, just last week, I was at the
32 SEDAR 74 data workshop, and every other presentation that came up
33 on the board about a specific working group, working on different
34 surveys or data sources, was discussing BSIA, and so I think, to
35 some extent, we are all confused and not necessarily up-to-speed
36 on this, which leads to my next question. I remember the fact
37 that this framework was still in development, in draft format, and
38 I think you said it's been finalized now?

39
40 **DR. LYNCH:** The document or the framework for the Southeast?

41
42 **DR. BARBIERI:** No, just the document in general, the general,
43 national-level guidance.

44
45 **DR. LYNCH:** Yes, and some years ago that was --

46
47 **DR. BARBIERI:** I see. I kind of missed that, that that was
48 completely finalized.

1
2 **DR. LYNCH:** Yes.
3
4 **DR. BARBIERI:** But that leads us to this regional BSIA framework,
5 and I guess I saw, yesterday, an announcement that HMS had theirs
6 now posted for public comment, and who is responsible for
7 developing those regional frameworks?
8
9 **DR. LYNCH:** The idea -- I will just skip back a slide or two, or
10 I won't, but the idea was that the SSC -- Sorry. The council.
11
12 **CHAIRMAN NANCE:** Jessica can move it, if you just tell her which
13 one that you want to be on.
14
15 **DR. LYNCH:** There it is, and so it's the bullet under -- Shoot. I
16 got the wrong one. We've got to go back. Well, I'm lost in the
17 presentation, but let's just say the idea is the council, the
18 Science Center, the Regional Office, basically that group, was
19 supposed to work together, and, in the Southeast, it's complicated,
20 obviously, because you've got multiple councils and HMS, and so
21 the Center and Regional Office are going in a lot of directions,
22 but that was the plan. When you say those three groups, that
23 doesn't mean that the public and everybody else can't weigh-in,
24 but it's just they're the ones who are supposed to be finalizing
25 it together.
26
27 **DR. BARBIERI:** Thank you, Pat. I appreciate it.
28
29 **CHAIRMAN NANCE:** Any other questions? Jim.
30
31 **DR. TOLAN:** Thank you, Mr. Chairman. To follow-up on what Luiz
32 was saying, we routinely make that motion at the end of an -- When
33 we review an assessment, and for a long time, we sort of combined
34 it together with this assessment is BSIA and suitable for
35 management advice, and we would go forward with that. Then we got
36 admonished by legal, and they said, no, you really can't put those
37 things together, and so we started making separate motions, and
38 so, if we're doing it at the assessment level -- You made a couple
39 of points of about individual products, and you really don't want
40 to label them that way, and so should we still be doing this motion
41 at the assessment level and say we think it's BSIA, or is it,
42 again, like you were saying, up to NMFS? Thank you.
43
44 **DR. LYNCH:** The NMFS final stuff is the final, okay, we did it,
45 basically. I don't want to scare people off from saying it, and
46 we should be talking about BSIA, right, and that's National
47 Standard 2, and it should be part of the conversation, a big part,
48 and so, when you're talking about the assessment -- I mean, I don't

1 -- I wouldn't suggest a formal declaration from the SSC that the
2 assessment is BSIA, but you certainly want to talk about whether
3 it's moving through the process appropriately and is likely to
4 support management that would be based on BSIA, altogether, when
5 it gets to the end.

6
7 **CHAIRMAN NANCE:** Ryan, to that point?

8
9 **MR. RINDONE:** Thank you, Mr. Chair. Dr. Lynch, we've had
10 conversations with GC about this in the past, specifically as it
11 relates to the assessment, and so this was the guidance that Dr.
12 Tolan is mentioning that we were given, was that we should -- The
13 SSC should say that the recommend that the SEDAR 61 assessment of
14 red grouper represents the best scientific information available,
15 and then they would say the SSC recognizes that the SEDAR 61
16 assessment of red grouper is suitable for management advice, and
17 then they would go from there into another motion about the
18 overfishing limit and acceptable biological catch.

19
20 That's the way that we have been doing that, and the justification
21 for that that we had received is that NMFS' determination and
22 defense of, in this example, SEDAR 61 as the best scientific
23 information available is supported by the SSC's peer-reviewed,
24 presumably independent, determination of as much, which, along
25 with the Science Center's ultimate determination of whatever
26 management action may come from it, that all of that was based on
27 the best scientific information available.

28
29 I guess we're kind of at a head-scratching moment here, and, I
30 mean, should we continue to say, in the case of stock assessments,
31 which, of course, represent the completed package that management
32 advice will be predicated upon -- Should we continue to have the
33 SSC vote on whether they think it represents, or is in keeping
34 with, or if there's a particular kind of language, but, like I
35 said, the GC advice that we've received was pretty explicit that
36 something about BSIA, with respect to the assessment, needs to be
37 said.

38
39 **DR. LYNCH:** Thanks for that question. I did not specifically
40 consult with a lawyer before coming down, and we should have that
41 conversation, and it's nuanced, and my recommendation, without
42 legal in the room, would be to just replace it with, instead of
43 "accepted as BSIA", that it's "consistent with BSIA", and I think
44 that buys you a little bit of space within the framework.

45
46 **CHAIRMAN NANCE:** Okay. Thank you. That's a question, because we
47 have talked about this at length at each of our assessments,
48 because we do -- For the assessments, we see what items are coming

1 into it, and we know each of the data streams, and, as a whole
2 assessment, we are comfortable with it being BSIA, and that's what
3 we've stated, but I think just the nuances of how we say that maybe
4 is -- Okay. John.

5
6 **DR. JOHN FROESCHKE:** Jessica, I think it's Slide 6, and can you
7 pull that up? It's the next one, Slide 7. My question is, in the
8 process of the SSC reviews an assessment, and they say this is
9 consistent with BSIA, in the event that a stock is overfished, and
10 requires a rebuilding plan based upon that information, in addition
11 to those steps, it also sets a time-limited sequence of events,
12 right, and so what happens in the event that we have a
13 determination such that now we're locked into a timeframe, and,
14 well, after -- In the process of getting to Step 6, where we
15 actually have management catch specifications in place and all
16 that, we discover that there was a misunderstanding, or an error
17 or something, in that, but there isn't a process to revisit that
18 BSIA, yet you're still locked into that timeline.

19
20 In that case, the whole process becomes difficult to manage, in
21 that the council doesn't have the ability to work towards the
22 management, because they don't have actionable science, but yet
23 they're locked into the timeline from the original determination,
24 and is there any process to work through that?

25
26 **DR. LYNCH:** Thank you. I don't know if you'll be satisfied with
27 my answer. I think, ideally, when the regional framework is
28 established, it would touch upon some need for deviation, when
29 there are situations like this that arise, but you can't predict
30 everything that's going to happen along the way.

31
32 I think that's primarily why we have that POC recommendation, so
33 that somebody can be there with the SSC, as things are happening
34 kind of real time, and bring them back to NMFS, to lawyers and to
35 Regional Offices, and figuring out a quick and efficient way
36 through it, but, no, we didn't specifically -- I mean, again, this
37 is general bounds on the overall framework, and we didn't really
38 get in the weeds on what happens if you have to revisit in the
39 middle of it, and you can't go back to the peer review panel, for
40 example.

41
42 **CHAIRMAN NANCE:** John, please.

43
44 **DR. FROESCHKE:** I guess the reason that I'm asking is that the
45 science continues to evolve in our region, which is good, but the
46 way that we do the projections now, with the MRIP-FES and all that,
47 requires more allocation kinds of things, which we're avoiding,
48 which is fine, but the point of the matter is that you often don't

1 know the final where you stand with regard to stock status and all
2 these things until much later, sometimes six months later, or even
3 longer, in a recent example, after that original determination is
4 made that we've reviewed an assessment product, and we've said
5 you're overfishing, and now you're well down this timeline on your
6 two years, but you still don't have catch levels that you could
7 begin to develop management, necessarily. To the extent that there
8 is iterations going back and forth, you're just burning through a
9 timeline, which is entirely problematic.

10
11 **DR. LYNCH:** I've got to punt on the efficiency issue. I don't
12 think it's outside the BSIA framework though. Even if you're being
13 dragged along, you still have the appropriate communication, and
14 you still have the right, you know, review teams and SSC in the
15 loop, I hope, and so you're able to discuss the decisions that are
16 being made along the way, and, yes, I think we've had poor
17 coordination examples all over the country, and that basically was
18 the impetus behind the main recommendation from this to have the
19 three groups, the Center, the Regional Office, and the council,
20 sit down and work through the steps, in detail, within these
21 bounds, but in detail.

22
23 **CHAIRMAN NANCE:** Thank you. Carrie.

24
25 **EXECUTIVE DIRECTOR CARRIE SIMMONS:** Thank you, Mr. Chair. Thanks
26 for the presentation. We have seen a draft of the regional
27 framework, and staff has provided extensive edits on that, and we
28 feel like it needs to get a lot more meaty. We need a lot more
29 information before it even comes to the SSC, and we would like to
30 see more what is the role of the SSC at certain stages, and like
31 sometimes we'll have robust stock assessments, and there will be
32 a CIE review, and that's available to the SSC, and other times you
33 may have an ad hoc approach that you're being asked to review, and
34 so we would like a lot more meat on that before we bring it to
35 you, and so we have provided that to the Regional Office, and
36 they're going to get back with us.

37
38 **CHAIRMAN NANCE:** Thank you, Carrie. That's perfect. Doug Gregory,
39 please.

40
41 **MR. GREGORY:** Thank you, Mr. Chair. Maybe I am not understanding
42 this conversation, but, in the policy document of best scientific
43 information available, it relies on the SSC to make the
44 recommendation to the council that it considers the process as
45 being consistent with the best scientific information available,
46 and so the SSC recommends it being the best scientific information
47 available, but, ultimately, it's National Marine Fisheries
48 Service's decision as to whether it is or not, and so we still

1 have to consider that and make that proclamation, I think, but
2 it's not the end-all, and it's just a recommendation to the council
3 and NOAA Fisheries. Thank you.

4
5 **CHAIRMAN NANCE:** Thank you, Doug, and I think, if we use the term
6 "the SSC considers this", then it can move up the chain. Dr.
7 Lynch.

8
9 **DR. LYNCH:** Thanks, Mr. Chair. I mean, I think you have it right,
10 and that's exactly how it's intended, and these BSIA evaluations
11 certainly need to be made along the way, but, eventually, there's
12 a management decision, and a management measure, put in place, and
13 it's at that step that it says, okay, all this was done consistent
14 with the process, and, by saying that -- You know, NMFS, in the
15 end, saying that we accept and approve this management action,
16 that's NMFS saying it's made basically a certification that it was
17 based on BSIA, but, yes, these discussions along the way, thinking
18 about BSIA and evaluating and determining if the framework has
19 been followed properly, are hugely important and fundamental to
20 the framework.

21
22 **CHAIRMAN NANCE:** Thank you. Luiz.

23
24 **DR. BARBIERI:** Thank you, Mr. Chairman. Patrick, this is going to
25 sound a little bit over the top and prescriptive, and it's not
26 meant to be this way, but, just because of our region, the way
27 that we are, right, that we have the Science Center and the
28 Regional Office, but we have those institutions serving three
29 councils, and so we have three SSCs, and three councils, and
30 sometimes things get a little confused, because we hear each other
31 talking, right, or we hear about comments that each other made, in
32 terms of the different SSCs, for example, conversations between
33 different councils and SSCs, and we can get kind of, you know,
34 wrapped around those conversations, right, and so, if possible,
35 and that's why I'm saying this is a little over the top, but it
36 would be good for you to give this same presentation and have this
37 same discussion with the South Atlantic and the Caribbean, because
38 I can tell you, for me, this conversation today has been extremely
39 helpful.

40
41 I think it helped clarify a lot of issues, and sometimes it's just
42 a confirmation, and you think -- You read something, or you hear
43 something, and you think a certain way, but you don't have that
44 confirmation that this is consistent with the general guidance and
45 how it's going to be handled at that broader policy level, and so
46 I think it would be helpful, for us even here, to have this
47 consistency in presentations and discussions at the South Atlantic
48 and the Caribbean as well, and so, if possible, and that's just a

1 suggestion and a request, please.

2

3 **DR. LYNCH:** Okay. Thank you, sir. I will tell my boss that Luiz
4 recommends a roadshow.

5

6 **CHAIRMAN NANCE:** At least for three councils. Paul.

7

8 **DR. MICKLE:** I appreciate the presentation, and this helps a lot.
9 I think, maybe, to help with the SSC, we can throw flags, if we
10 have concerns about design or data collection analyses or
11 interpretation of it, right, and so, even though we don't formally
12 do a BSIA to a dataset or something, we can throw up major concern
13 about methodologies or something, and I think that's how I
14 interpret some of our biggest roles here as the SSC, whether it's
15 Standing or Reef Fish or whatever part of it you are, and it's a
16 peer review, just like a journal does.

17

18 We say no more than we say yes in the journal process, or at least
19 a lot of folks do, but, anyway, I think that's how I interpret the
20 value here, and I appreciate this, because it gives us the bounds,
21 but we still have all that capability, and this come up, and
22 examples are we had some major methodological issues with some of
23 the snapper stuff that came in front of us, right, in the last
24 year, and we worked through that, and we identified spatial bias
25 in some of the methodology and some of the sampling stratifications
26 and all those things, but that's the scientific meat of what our
27 purpose is here, in my opinion.

28

29 One comment you've made, a couple of times, is the SSC is supposed
30 to -- You may have to say it again, but consistent with the process,
31 and we stamp it that way, and that just seems like something that
32 a lawyer should do, and not a bunch of scientists, and we don't
33 check a process.

34

35 We're scientists, and that just doesn't seem appropriate of our
36 role, or maybe I'm just interpreting it wrong, but we don't check
37 on processes here, in my opinion, and we just do pure science and
38 identifying what's good and bad and what's better and what's not
39 and what's appropriate and what's inappropriate, and so that's all
40 that I had, is just those points.

41

42 **DR. LYNCH:** Okay. Thank you. I think the process, the more formal
43 process, step you have though is recommending an ABC, and so that
44 is part of, you know, a legal framework, and so, in doing so, I
45 think it's an assurance that you've made that our recommendation
46 here is consistent with BSIA.

47

48 I don't think it's a -- You know, it shouldn't be a legal evaluation

1 of did NMFS do this, or did the peer review panel do that, but
2 it's more that we've looked at the package, and we've provided our
3 feedback. We're at a place now where we agree that this is our
4 ABC recommendation, and so, by doing that, it's consistent with
5 BSIA.

6
7 **CHAIRMAN NANCE:** I think, just like when we are reviewing a paper
8 for publication, it is acceptable to the journal, and that's our
9 -- After we've looked at it rigorously, and those types of things,
10 we're passing it on that it's acceptable for publication within
11 the journal, but I would like to have maybe legal make sure that
12 we -- As we go down this path, that we're not called and said we
13 need to be doing something different, because we do this each time,
14 and so I think that's what we need to have happen.

15
16 **MR. RINDONE:** We'll just tell Mara that Pat said it was okay.

17
18 **CHAIRMAN NANCE:** Anyway, Harry and then Dave.

19
20 **MR. BLANCHET:** Thank you, Mr. Chairman, and so we've been talking
21 here about how we address assessments and assessment results, and
22 I wanted to take it down to the data-stream level. A lot of times,
23 we do look at individual data sets, data streams, and this might
24 be part of a SEDAR, or it might be something that is being
25 considered for input into a stock assessment, that is not part of
26 a SEDAR yet, and so I can see a place where we might be able to
27 say this dataset seems appropriate for consideration as part of a
28 -- Just to pick an example, but part of an assessment for goliath
29 grouper.

30
31 Someone else at say NOAA Southeast Science Center may have a
32 different perspective than we do, in terms of whether that dataset
33 is appropriate or not, especially once they get into development
34 of that assessment, and so I'm trying to think how we can say
35 something that provides -- What we would say before is it seems
36 appropriate or not, but how does that fit within this framework,
37 I guess is the challenge.

38
39 **DR. LYNCH:** Thank you for the question. The framework won't be
40 able, in itself, to resolve any disputes. We did try to address
41 that in the paper, to a degree, and we couldn't get very far,
42 except to say that we know there is going to be disagreement
43 between say the Science Center and the SSC, or the Regional Office
44 and the SSC, or whomever may be involved, and there will be
45 differences of scientific opinion and differences of opinion in
46 the process.

47
48 We didn't get much further than having this POC as having a

1 fundamental role, because what's key there, certainly when there
2 is conflict, is good communication, and so we need somebody taking
3 the concerns and bringing them to the table, and we should, right?
4 We should be debating the scientific validity of pretty much
5 everything that's used, and so, eventually though, you need to
6 resolve at a decision, and all we had there, recognizing that it's
7 going to happen, and there's not an easy to solve everything, is
8 that we just need a POC who is working consistently and
9 communicating effectively with all the parties.

10
11 **MR. BLANCHET:** It seems to me that one of the lines for your job
12 description for POC should be omnipotent, because trying to
13 understand all that's going on within the SSC and within the
14 Science Center is a huge task just by itself.

15
16 **CHAIRMAN NANCE:** We're going to have Shannon. Go ahead, Shannon.

17
18 **DR. CALAY:** Thank you, Jim, and I am not on the SSC. I am here
19 representing the Southeast Fisheries Science Center, but I did
20 think that it might alleviate some of your concerns for me to tell
21 you what our customary role in this process of certification is,
22 and so our team serves on the IPT committees that draft the
23 regulatory amendments, and we serve with SERO in that process.

24
25 Typically, our role, once certification is requested, is just to
26 make sure that the management actions that are described in that
27 regulatory amendment are consistent with the stock assessment
28 management outcomes that were set by the SSC, for example, and so
29 we would make sure that the regulatory amendment achieves
30 rebuilding, or that it eliminates overfishing, and we don't
31 typically go into that process looking at the BSIA of each
32 individual dataset that might be used in a stock assessment.

33
34 That is our customary role, is really just to make sure that the
35 management amendment that is put in place and presented to the
36 council is consistent with the stock assessment results and
37 outcomes that the SSC has reviewed.

38
39 **CHAIRMAN NANCE:** Thank you. Carrie, to that point?

40
41 **EXECUTIVE DIRECTOR SIMMONS:** Thank you, Mr. Chair. I guess my
42 thinking is one of the reasons we would put the Southeast framework
43 together, which they have not seen yet, is we would work through
44 some of these details, right, and we would try to lay out that
45 this is our stock assessment process, and this is the type of
46 assessment, and this is the provider, whether it's the Science
47 Center or FWRI, and then we would say, you know, this is the role
48 of the SSC, the role of the agency, that kind of thing.

1
2 You would kind of flesh that out further, and I think, once we
3 start working on that and bring it back to you, I think these data
4 streams, like I think you're referring to, Harry, I mean, that was
5 discussed during the preliminary, right, when we had the assessment
6 development team.

7
8 The working group made recommendations, right, through the
9 assessment process, and then that ADT said, yes, we agree, or, no,
10 we don't agree, and so the SSC is making recommendations on
11 individual data streams, as a body, or a subgroup, and then that
12 is being reviewed at various levels along the assessment way, and
13 so I think, once we start fleshing that out and bringing it back
14 to you, some of these little details we should talk more about at
15 that time.

16
17 **CHAIRMAN NANCE:** Thank you. Dave, please.

18
19 **DR. CHAGARIS:** One of the things that this SSC does differently
20 from most others is we make motions, and we vote on them, and,
21 oftentimes, when we vote on a BSIA determination, for example the
22 Snapper Count, sometimes it passes by a very thin margin, one or
23 two votes. Does that hold the same weight as if it was a consensus
24 by the group on BSIA, and how do we -- Because, I mean, some of us
25 may not be in agreement of BSIA, and we walk away feeling like,
26 well, now we have to move forward with this decision, even though
27 it was a very slim vote, and so how does that kind of factor into
28 this whole framework?

29
30 **DR. LYNCH:** We never consider sort of the weight of support in
31 where you end up. I mean, just to say that a decision has to be
32 made, and, when you have all the right parties in your room, as
33 laid out in your framework, and all the steps were followed, then
34 whatever results from that gets the same sort of stamp of approval,
35 in terms of BSIA, and so I don't think -- A slim margin, or a wide
36 margin of consensus, it's still, in the end, management based on
37 BSIA. People might have a different opinion, certainly, right, of
38 what that means.

39
40 **CHAIRMAN NANCE:** Well, thank you. I think it's been a very
41 informative discussion, and I appreciate you coming down here. It
42 was good to see you again.

43
44 **DR. LYNCH:** You as well, and thank you, Mr. Chair and SSC members.
45 I appreciate it.

46
47 **CHAIRMAN NANCE:** Now we will go into Item Number VI, I guess, and
48 we'll have Ryan go ahead and take us through the scope of work,

1 and we have Dr. Calay here to be able to lead us in this discussion.

2
3 **DISCUSSION: ACCEPTABLE BIOLOGICAL CATCH CONTROL RULE**
4 **MODIFICATIONS**
5

6 **MR. RINDONE:** Thanks, Mr. Chair. We last talked about revising
7 Tier 1 of the ABC Control Rule in May of last year, and, since
8 then, lots of things have happened that have distracted you all's
9 attention, quite efficiently, I would think, from us trying to
10 make some more progress on any revisions to the ABC Control Rule.

11
12 We're going to relive that May 2021 presentation, and there's lots
13 of background materials that were posted for you guys to also
14 digest, but the goal of this is to reevaluate Tier 1 of the ABC
15 Control Rule, and the current control rule has been in place since
16 2011, but many of you, since then, have regularly expressed a
17 desire to revisit certain aspects of it, one of them being the
18 propensity for the buffer between the OFL and the ABC, as
19 determined by the P* approach, generally resulting in buffers that
20 are quite narrow and that may not represent the uncertainty that
21 the Science Center and FWC typically describe as being inherent in
22 the assessment.

23
24 You guys will review these presentations and background materials,
25 or you should have reviewed the background materials that have
26 been provided, and I have one more from Dr. Calay that I need to
27 put up, and to focus your efforts on trying to -- Thinking on how
28 to revise Tier 1 of the ABC Control Rule in a manner that you think
29 is scientifically appropriate and does an efficient job of trying
30 to capture the scientific uncertainty that's inherent in the
31 assessment and the projections that are typical of review for the
32 SSC, and make any other recommendations that you think are
33 appropriate. Mr. Chair.

34
35 **CHAIRMAN NANCE:** Thank you, and I think the last time, Shannon, we
36 sat down together was this presentation, and I think that was the
37 last time, but, anyway, it's nice to have you back, and please --
38 This is being presented so we can have a discussion, and we have
39 six hours, and so we're going to have a robust discussion on this,
40 and so we'll be able to have some breaks on it too, but, anyway,
41 Shannon, we'll go ahead and turn the time over to you for the
42 presentation.

43
44 **DR. CALAY:** Thank you, Chair. I wanted to say how good it is to
45 see you all in-person. It's a big improvement over looking at a
46 screen without any faces on it, and that was a very challenging
47 experience.

1 I did want to start off by saying that this is essentially a
2 flexible proposal, and the Science Center does have some opinions
3 that we would emphasize, and, in other areas, we are quite
4 flexible, and so I will show you that flexibility, and I also have
5 a spreadsheet that was presented in May that allows you to actually
6 demonstrate some of the decision points, and I am really terrible
7 about using these clickers, and so we'll see how this goes. So
8 far, so good.

9
10 For those of you who haven't seen this figure ten or a hundred
11 times before, the roles and responsibilities, as far as the ABC
12 Control Rule, as outlined, is that it is typically the SSC's
13 responsibility to determine the overfishing limit, OFL, which is
14 the catch that is expected when fishing at the maximum fishing
15 mortality threshold, with a 50 percent probability of exceeding
16 the OFL, as determined by the stock assessment.

17
18 The ABC is simply the acceptable biological catch, which is reduced
19 from OFL by some amount which corresponds to your understanding of
20 the scientific uncertainty. The annual catch limit is actually
21 the level that triggers the accountability measures, and this is
22 typically considered a council prerogative. If you exceed the
23 catch that is the ACL, usually there is a management action that
24 takes place, for example the imposition of a closure or a size or
25 bag limit, some management action.

26
27 The annual catch target is also sometimes used, which is further
28 reduced to account for the management uncertainty. Now, each of
29 these can be set equal to a level above, but cannot exceed it, and
30 so what is an ABC Control Rule?

31
32 It's simply an agreed-upon procedure which is adopted within the
33 FMPs for setting the acceptable biological catch for a stock as a
34 function of the scientific uncertainty in the estimate of the
35 overfishing limit and any other appropriate scientific
36 uncertainty. Each council was given essentially the task of
37 establishing an ABC Control Rule, based on the scientific advice
38 from its SSC, and so this SSC met, in roughly, what, 2008, 2009,
39 and 2010, and put in place the control rule that exists today.

40
41 The SSC must recommend the ABC to the council. An SSC may recommend
42 an ABC that differs from the result of the control rule, but must
43 explain why, in some justification, and, in many cases, it can be
44 data limited, and it could also involve complex drivers, based on
45 the measured stock biomass, uncertainty, forecast of environmental
46 effects, et cetera, and so it's a flexible rule.

47
48 Now, some councils have adopted a single framework across all of

1 their FMPs, and others have different ABC Control Rules for
2 different fishery management plans that they manage, but most do
3 attempt, to various degrees, to set the ABC below the OFL, in a
4 way that reflects scientific uncertainty.

5
6 Now, how they actually do this varies between councils actually a
7 great deal, and so this is just an example that you can look
8 through at your leisure, which is the Western Pacific Fishery
9 Management Council ABC Control Rule, and, essentially, what I'm
10 pointing out is that this control rule happens to have five tiers.
11 Tier 1 is their data-rich stock assessment process, where they do
12 set ABC at some level corresponding to their understanding of the
13 scientific uncertainty, using the calculation that you see there.

14
15 When they get down to their Tier 4, which is the data-limited stock
16 assessment, at least in this iteration of their control rule, they
17 just applied a straight fraction, 91 percent of the MSY, and then,
18 much like your control rule, essentially the catch-only tier, the
19 true data-limited, Tier 5, is simply determined as some multiplier
20 of the median catch.

21
22 The existing Gulf control rule looks like this, and this is Tier
23 1, and so it does have a condition for use, and that condition for
24 use is that the assessment provides you an estimate of the MSY
25 reference points and produces a PDF, a probability density
26 function, of the OFL estimate. In the current Gulf control rule,
27 the choice of the P^* is actually based on a tiers and dimensions
28 table, and so you are looking at a variety of different factors
29 when you determine the P^* , including how the level of the stock
30 assessment and the use of the FMSY proxies -- So you're actually
31 assigning a higher uncertainty to less-complex stock assessments
32 that may rely on an SPR proxy, such as FSPR 30, or F 0.1.

33
34 You're also characterizing the uncertainty by looking at whether
35 the uncertainty is fully integrated in the projections, whether
36 we're looking at some sensitivity runs to determine our
37 understanding of the key parameters, or in fact whether we're not
38 looking at key parameter uncertainty at all in the stock assessment
39 process. You also look at the severity of the retrospective
40 pattern and whether or not the stock assessment used environmental
41 covariates that are thought to exist and affect the stock.

42
43 After that consideration, your OFL is simply the yield at FMSY, or
44 its proxy, and the ABC is the yield at whatever that P^* potential
45 that comes out of your tiers and dimensions table, which usually
46 ranges between 0.3 and 0.5, and it's that P^* percentile of the
47 projection of FMSY for stocks that are not overfished, and, for
48 stocks that are overfished, ABC is the yield at F rebuild.

1
2 This is your tiers and dimensions table, and I'm sure you're well
3 aware of it, and I had a hand in creating this, and I regret it,
4 and Joe Powers and I are sorry, and so the council, at one time,
5 did set limits on what P^* could be, and they determined, at that
6 time, that they were interested in allowing the flexibility to set
7 P^* between 0.3 and 0.5, and so, in its lowest configuration, this
8 tiers and dimensions table produces a P^* of 0.3, and it produces
9 a P^* very close to 0.5 in the best of circumstances.

10
11 This is actually kind of some general guidance from the imposition
12 of the ABC control rule years ago, and so it's kind of the NMFS
13 general guidance. It states that an ABC Control Rule should, at
14 some level, reduce fishing mortality as the stock size decreases,
15 and so, especially if a stock is overfished, you would reduce the
16 F to allow the stock to rebuild, for example.

17
18 In some cases, it is appropriate to impose a B critical value to
19 reduce the F to zero at some level of depletion, and so this has
20 been done in certain circumstances, and it typically would prevent
21 a stock from reaching a level below which reproductive limitations
22 become severe.

23
24 Now, I would call this next bullet point more of a Science Center
25 understanding that has evolved from our experience with the control
26 rules. We believe, at the Southeast Fisheries Science Center,
27 that it is appropriate to divorce the concepts of P^* and σ ,
28 and σ is the scientific uncertainty. σ is the width of
29 the PDF that is produced by a stock assessment, and P^* is your
30 risk determination that has, in this case, come out of your tiers
31 and dimensions table, and we, at least, believe that the SSC should
32 focus on characterizing the scientific uncertainty, which, in this
33 presentation, I will call σ .

34
35 We also believe that we should impose a tiered system, where, as
36 the data quality and quantity decrease, the σ should increase.
37 The scientific uncertainty should be larger as the data quality or
38 quantity diminish, and so there ought to be larger buffers between
39 OFL and ABC for the lower tiers, as you move towards data-limited
40 conditions.

41
42 In some circumstances, the ABC Control Rules are set up to achieve
43 that, quite systematically, and, in other cases, it's more organic,
44 and it may or may not actually achieve bigger buffers as you move
45 to data-limited conditions.

46
47 This is kind of general guidance about the ABC Control Rule, and,
48 in this particular case, it's a schematic that looks a little bit

1 like your control rule looked when you set the minimum stock size
2 threshold at one minus M times BMSY, and so this is no longer your
3 default, and so, in this particular case, MSST, that minimum stock
4 size threshold, marked in red, is set at a level below BMSY, and
5 that's to prevent triggering a management action when you are
6 simply looking at deviations, for example, in the expected
7 recruitment or deviations in other population parameters.

8
9 You will see, in this case, that the fishing mortality that you
10 achieve with your control rule is essentially FMSY, or its proxy,
11 until you get to the level MSST, the minimum stock size threshold.
12 At that level, it declines to essentially zero. Now, in your
13 actual control rule, you're using F rebuild, and so it's not a
14 mathematical calculation. It's actually a determination of the
15 level of F that will allow the stock to rebuild within the
16 timeframe specified, and so this is actually what the default
17 control rule looks like, more or less, and, again, a schematic.

18
19 Now you have shifted your MSST to 50 percent of BMSY, in most
20 cases, so that, you know, what happens is, with this control rule,
21 for a stock that is below BMSY, but still above the minimum stock
22 size threshold, your OFL is the yield at fishing at FMSY, or its
23 proxy, and your ABC is simply a small buffer established by your
24 tiers and dimensions table, and you don't actually start to reduce
25 the fishing mortality until you reach a stock size below the MSST,
26 and then you need to actually establish a rebuilding plan, right,
27 and so that's where we're triggering a rebuilding plan, and we're
28 building our ABC on F rebuild.

29
30 Now, I am not suggesting that there is a need to change your
31 default determinations of MSST, and that is typically considered
32 a council prerogative, but I will point out that, in the current
33 control rule, you have very small buffers. Even when you're quite
34 close to MSST, you're only applying a very small buffer between
35 OFL and ABC, and that, when you do get to a stock size that's well
36 below MSST, like, for example, the recent assessment of gag
37 grouper, you are in a situation where very drastic management
38 actions are required to rebuild the stock.

39
40 Other shapes are possible, and, for example, we could -- These are
41 kind of the two examples, together, of -- Well, this is the current
42 example, where your MFMT is actually the fishing mortality that
43 you derive OFL from, until you get to MSST, and then you apply F
44 rebuild, and there's also possibilities where you would begin to
45 reduce the fishing mortality whenever a stock is below the biomass
46 that supports MSY, and so many shapes are possible.

47
48 Some of you have pointed out that the P*, as its labeled in this

1 figure, is incorrect, or at least not clear, and so, rather than
2 correcting this, I will just explain that, in fact, of course, P^*
3 is typically the probability that you're willing to accept of
4 overfishing, and so, in the figure that's shown here, P^* is 40
5 percent, and what is labeled P^* is really only intended to be --
6 That is the buffer between OFL and ABC that corresponds to the P^*
7 of 0.4, in this case.

8
9 What I wanted to point out here is how you're actually determining
10 OFL and ABC, in many cases, and so, essentially, the OFL is the
11 catch at the MFMT, which is F_{30} percent for most of your stocks,
12 and that is the OFL, and you are determining your P^* through the
13 tiers and dimensions table, and that's what is setting the buffer
14 between OFL and ABC, and, in most cases, in the Gulf Council, you
15 are looking at values between 0.4 and 0.48.

16
17 What I want to point out with this figure though is that, actually,
18 the sigma, the uncertainty specified by this particular example,
19 is actually quite large, and it's considerably wider than what
20 comes out of most of our stock assessments.

21
22 The width of the PDF that comes out of most of our stock assessments
23 is a fairly substantial underestimate of the true scientific
24 uncertainty, and that occurs because, for example, many of our
25 stock assessment parameters are fixed. For example, we do not
26 estimate natural mortality, and, in most cases, we do not estimate
27 growth parameters.

28
29 Now, if we incorporated the full uncertainty in a stock assessment,
30 and, frankly, the South Atlantic laboratory does incorporate more
31 uncertainty than we typically do in the Gulf, because BAM has
32 different capabilities than SS, but the width that is produced by
33 our typical Gulf assessments corresponds to a CV closer to 0.1,
34 which is extraordinarily narrow, and so the P^* isn't really giving
35 you a very big buffer, even if you set it as low as 0.3.

36
37 All right, and so the calculation of ABC -- Clay likes to show
38 this figure about how there are known unknowns, but there are also
39 many things that are unknown unknowns, and we simply don't know
40 them until we observe them, and so, in fact, the PDF around OFL is
41 quite large and poorly estimated by stock assessment processes,
42 and so how could we improve that estimate of the width of the PDF,
43 what I am calling sigma?

44
45 There are many different ways, of course, and a convenient
46 approach, lacking better information, is to estimate the variance
47 external to the stock assessment process. For example, one could
48 compute comparisons of estimates from multiple past stock

1 assessments and use that as a proxy for the scientific uncertainty,
2 and that is the approach that is actually described by the Ralston
3 et al. paper that I put into the background materials, and then I
4 will walk through that in a minute, and then I will discuss an
5 update to that process, too.

6
7 The Ralston paper, he looked at -- Well, a team of folks looked at
8 seventeen different stocks from the North Pacific Fishery
9 Management Council, and they -- This is an example that shows, on
10 the left-hand side, the past assessments of Pacific whiting, and
11 it shows you that, as they got new information, or changed the
12 fishery stock assessment approaches over time, the results
13 actually varied substantially between one stock assessment and the
14 next, which typically does happen.

15
16 They were able to look at across that range of outcomes that were
17 produced and look at the aggregate distribution of all the log
18 deviations from the trends in spawning stock biomass, pooled over
19 those seventeen stocks, and to look at the distribution of that
20 variability, and they determined that, for the North Pacific stocks
21 at that time, the sigma min was about 0.36 for their data-rich
22 stock assessments and considerably wider than that in data-poor
23 situations, and so that's this figure.

24
25 I'm used to being able to use a pointer, but what I will show you
26 is that the top line on this figure are the Tier 1, what they
27 consider to be their data-rich stock assessments that produce a
28 sigma min of 0.36, and, if you assume that P^* is 50 percent, of
29 course, it doesn't matter how big your sigma is. If you take the
30 50th percentile, there is no buffer between OFL and ABC, period,
31 but, as you reduce the P^* to 0.25, in this case, with a Tier 1
32 stock assessment and a sigma of 0.36, then you get about a 20
33 percent buffer between OFL and ABC. In other words, ABC is 80
34 percent of OFL.

35
36 What they thought they would be best to use for data-moderate and
37 data-limited are just multipliers of that data-rich sigma, and so
38 the middle line is data-moderate, with a sigma of 0.72, and the
39 low one would be a data-limited stock assessment, with a sigma of
40 1.44, and so, obviously, in this case, as you reduce the data
41 availability and the data quality, then you get larger buffers,
42 and, in their most extreme example, with a Tier 3 stock assessment,
43 assuming a P^* of 0.25, then ABC is only about 40 percent of the
44 OFL.

45
46 Before I get to this slide, which is kind of busy, I will say that
47 there has been an update to this paper that was considered by the
48 North Pacific Fishery Management Council, and I have also asked

1 Ryan to include that in your briefing materials, and it was Kristin
2 Privitera-Johnson and Punt, and what they did is actually
3 incorporate some of the projection uncertainty into these
4 estimates, and, when you actually incorporate that projection
5 uncertainty, that P^* that they recommend goes up to about 0.5 for
6 a data-rich stock assessment, and that is the new kind of sigma
7 min that's been accepted by the Pacific Fishery Management Council.

8
9 This is a proposal, and this actually happens to come from the
10 Tier 1 of the Caribbean Fishery Management Council plan. They
11 don't have any Tier 1 stock assessments yet, and they only have
12 data-moderate and data-limited stock assessments, and so this was
13 a strawman that the Science Center produced for the Caribbean, and
14 the nuance about this one is that, if a stock would be overfished
15 in the U.S. Caribbean, they don't need to go through determining
16 F rebuild, and this one mathematically sets a reduced F until it
17 reaches the origin, as I showed you in those examples.

18
19 This may be a little bit different than what you choose to do, but
20 the main features of this control rule are kind of highlighted in
21 that salmon coloring, and so, in this case, the control rule for
22 Tier 1 depends on the SSC providing an estimate of the sigma min
23 that corresponds to a data-rich stock assessment.

24
25 The Caribbean Council determined that sigma min would be 0.5, and
26 so that's the minimum scientific uncertainty that the Caribbean
27 Council thinks would apply to a data-rich stock assessment. Now,
28 they did specify that, if we had actually determined, through some
29 modeling process, that the sigma min was in fact larger than that,
30 they would use that sigma that comes directly from the stock
31 assessment, but that any value of sigma lower than 0.5 would be
32 replaced by a sigma min of 0.5.

33
34 Now you also have a feature, which is complex, because it involves
35 essentially the ABC is now some function, D of X , where D is
36 defined as in two conditions. One is when the biomass is above
37 $BMSY$, and it allows to employ a scalar, and so I'll get to what is
38 that scalar in a moment, and, in the situation where B is below
39 $BMSY$, then you use that scalar times some function that depends on
40 your current biomass, the B critical value you've chosen, your
41 biomass at $FMSY$ or its proxy, and, again, the B critical value.

42
43 B critical, is that minimum level of depletion at which fishing
44 would not be allowed, and that's the Caribbean Council's decision,
45 and the scalar is a kluge, and I will admit it. The scalar was in
46 case, for some reason, the P^* was set below -- Was set at 50
47 percent by the council, right, because this whole thing falls apart
48 when P^* is set at 50 percent, because then, no matter what you do,

1 there is no buffer between OFL and ABC, and so this was simply a
2 way that, if the council set the P^* at 50 percent, the SSC could
3 set the scalar less than one and achieve a buffer. That's what
4 the scalar is. If you don't need to worry about -- If P^* is going
5 to be less than 50 percent, you can leave that scalar at one.

6
7 I did want to point out that it was at least our advice to the
8 Caribbean Council to focus on sigma min, to focus on the scientific
9 uncertainty, and actually allow the council to determine the level
10 of risk they were willing to take to set P^* , as long as it was
11 below 50 percent, and that is in fact what worked in the Caribbean.
12 They set their default P^* at 0.4, and I think, in some situations,
13 they are interested in P^* as high as 0.45, but the SSC's role is
14 to determine the width of sigma min, the width of the PDF.

15
16 All right, and so how does this actually function? I put a
17 spreadsheet together in May, and it is in your background
18 materials, and, if you want to, we can go ahead and walk through
19 some variations of this process, but I think the most important
20 thing that the Science Center wants to achieve is establishing
21 something closer to a true approximation of the scientific
22 uncertainty, sigma, and so what I've shown you here is a control
23 rule that would be the result of a sigma of 0.36, a P^* of 0.4, and
24 either determining that F will reduce to the origin at MSST or at
25 BMSY, and so these are kind of the two extremes.

26
27 The MSST is essentially what you're familiar with, where we don't
28 reduce F until you get below the minimum stock size threshold, and
29 that's the red line, and so the difference here, between what you
30 do now and kind of what this schematic is in red, is that you see
31 that now there's a buffer of about 10 percent between OFL and ABC,
32 no matter what your biomass is, right, and so, even if your biomass
33 is above BMSY, you're still using a buffer, between OFL and ABC,
34 of about 10 percent, and that buffer is coming from the sigma value
35 of 0.36, which is considerably larger than what is the typical
36 sigma that comes out of our stock assessment process in the Gulf.

37
38 Another difference is that that reduction you're seeing between a
39 B of 50 percent of the BMSY and the origin in this case is from
40 that formulation that I showed you on the previous slide, but, in
41 fact, in your control rule, that is simply F rebuild, essentially
42 is what that ramp is, the F rebuild value, and, of course, here,
43 there is B critical applied, where the ABC is set to zero if you
44 get below I think 10 percent of the BMSY, and so these were all
45 intended to be kind of hypotheses about what could be done.

46
47 There is some advantage to having a little bit more consistency
48 between the various regional control rules, and there was certainly

1 an interest in achieving more similarity between the control rules.
2 However, I mean, the councils do tend to go in their own
3 directions, and the Science Center does recognize that it is your
4 prerogative to set the ABC Control Rule.

5
6 All right, and so one thing you may remember from our last
7 discussion in May is that we took a look at how three stock
8 assessments that we had done recently performed with your current
9 control rule and then with the new version of the control rule,
10 and I will just summarize briefly, and you can look at this in
11 more detail, if we want to take the time, but, for stocks that are
12 above BMSY, your current control rule is actually a little bit
13 more conservative than what comes out of a sigma of 0.36 for
14 vermilion snapper, and that may be not a robust result across all
15 stock assessments.

16
17 For king mackerel, which is actually above the minimum stock size
18 threshold, but below BMSY, they perform relatively similarly, in
19 that you got about the same ABC produced by the two methodologies,
20 but, for a stock that is below MSST, and remember that this
21 presentation was given to you in May of 2021, and so was the
22 demonstration that was produced, and it was not updated with the
23 most recent greater amberjack results, but my point was that, for
24 stocks that are below MSST, below the minimum stock size threshold,
25 the control that I have shown you in this presentation actually
26 was considerably more conservative than the rebuilding plan, which
27 was actually a surprise to the Science Center, when we produced
28 that.

29
30 The advantage of doing a control rule is that it -- Of specifying
31 a decreasing F with the control rule is that it would alleviate
32 the need to create a rebuilding plan, but it would require the
33 Science Center to test the ABC Control Rule, to make sure that it
34 was at least as effective as a rebuilding plan. However, you could
35 simply retain your current practice of, when a stock is declared
36 overfishing, then the ABC would be determined from the rebuilding
37 plan of the yield at F rebuild, and so there is no need to change
38 that policy. That policy currently does function.

39
40 That's it, and that's what I had to present, and now I'm very happy
41 to go through any elements of the demonstration and spreadsheet
42 that you would deem useful.

43
44 **CHAIRMAN NANCE:** Perfect. Here's what I'm going to do. As soon
45 as we start down this rabbit hole, we'll never stop, and so we're
46 going to take a break, but I don't want you to corner Shannon over
47 here and get all your questions answered. We need to do that as
48 a group, and so don't grab her and try to do that, and so we'll

1 come back here at 10:45, and we'll start this discussion.

2

3 (Whereupon, a brief recess was taken.)

4

5 **CHAIRMAN NANCE:** Okay, and we will now enter into our discussion
6 portion. Sean.

7

8 **DR. POWERS:** Thanks, Shannon. Like I said during the break, I
9 will miss the nostalgia of the colorful table, when we pull it
10 out, but just a couple, and, one, and so you're only talking about
11 Tier 1 here, correct?

12

13 **DR. CALAY:** Yes, Sean, that is correct, and I will say that, in
14 the Caribbean control rule, Tiers 2 and 3 actually are just
15 increasing the sigma min for more data-limited stock assessments,
16 and so, basically, 1, 2, and 3 all are based on this premise in
17 the Caribbean, and the difference is the expanded sigma min, as
18 you reduce the data quality. They also have a Tier 4, which is
19 their catch-only tier.

20

21 **DR. POWERS:** Okay, and so the next question is a little bit -- How
22 much of the -- I like the point you made of divorcing P* with sigma
23 or the PDF spread, because I think our problem is the latter, as
24 you mentioned, and how much of the problem with the narrow PDFs is
25 because, in the stock assessments, we put an artificially low CV
26 on a lot of the data sources, and then we allow a relatively high
27 effective sampling size, and, I mean, I know we still cap it
28 largely at 200, but that's still relatively large, and so, as
29 opposed to a Ralston method or anything, what's the chances that,
30 if we relax those things and use the real CVs, reduce the effective
31 sampling size even smaller, that we could generate broader PDFs
32 naturally from the model, or is this butting up on an SS
33 limitation?

34

35 **DR. CALAY:** There are a number of reasons why we wouldn't
36 necessarily want to estimate the catch with an error that we
37 believe to be true, and one is that we then can run into situations
38 where our projections are based on the model's lack of fit to the
39 observed data, but the ACLs are monitored using the observed data,
40 and so that's kind of difficult to navigate, and it happened with
41 red grouper, for example, and so you're correct that we could
42 certainly expand the PDF that is produced by our SS models, through
43 a number of ways, one of which would be using a truer
44 representation of the scientific uncertainty in our data inputs,
45 but, also, we would have to estimate certain key parameters, like
46 natural mortality and growth parameters, for example, but, in many
47 cases, there is no data for us to reliably estimate those with the
48 data available to us, and so we fix them because they cannot be

1 estimated, but, by fixing them, we do end up with smaller than
2 expected PDFs.

3
4 I will say that, in addition, you need to consider the between-
5 model uncertainty, right, and so there could have been different
6 model implementations that we explored, and there could have been
7 differences between the last several stock assessment models that
8 might be important to explore, like Ralston-style approach, and
9 so, even if we were able to better estimate the scientific
10 uncertainty of any given stock assessment model, there will still
11 be other model ensemble approaches that would have had an even
12 broader estimate of scientific uncertainty.

13
14 **DR. POWERS:** There is no way, right now, to do that, just because
15 they involve different sets of parameters, and there is just no -
16 - I think Katie hit on this in the red snapper conversation, that
17 there is just no way to compare those models, because they have
18 different inputs.

19
20 **DR. CALAY:** That is correct. I mean, if do two different
21 implementations, there is no easy way to compare two different
22 models with two different sets of input data with comparable
23 metrics, right, and what is used in some places, including ICCAT,
24 for example, is an ensemble model approach, where they literally
25 create an uncertainty grid of many different models, and they
26 combine the results into a PDF, and that's what they use to create
27 the stock assessment advice.

28
29 Those PDFs are very broad, but, course, that's extremely time-
30 consuming approach as well, and so, really, yes, it can be done,
31 and we can better estimate the width of the sigma min. There are
32 approaches that could be used, and it's really a matter of how
33 this council has evolved through the SEDAR process and what you -
34 - What our common approaches are and the time we have available to
35 use those common approaches.

36
37 **CHAIRMAN NANCE:** Thank you, Sean. Luiz.

38
39 **DR. BARBIERI:** Thank you, Mr. Chairman, and, Shannon, thank you
40 for coming over in-person and for the great presentation, because
41 I think it's good, and it was time to revisit this issue, and
42 having you here and the opportunity to just discuss this in-person
43 is great.

44
45 I have my preference, and, if you could put, Jessica, her Slide
46 18, and so, I mean, I understand, I like the proposal here, and I
47 think that simplifying our ABC Control Rule is needed, and it's a
48 useful process for us to go through, and so just a few comments.

1
2 One is I would prefer staying true to us here and focusing on
3 scientific uncertainty, to sort of divorce this process of setting
4 buffers based on stock status, right, like it is on that slide
5 there, and so, of the two proposals, or the two options that you
6 present as possible scenarios, I would prefer sticking with the dX
7 MSST, right, and not really -- Even though, conceptually, I
8 understand, and I accept, that this would be a good policy, I feel
9 that this policy is really up to others, and the council, to make
10 that decision, and so we could present this to the council as a
11 proposal.

12
13 If they want to start decreasing fishing mortality in this sort of
14 semi-prescribed way, through the ABC Control Rule, as stock status
15 changes, and that would be relative to BMSY, but, in general, to
16 stay true to that concept of the SSC sticking with just the
17 scientific uncertainty, I would rather go with the MSST approach.

18
19 **DR. CALAY:** The Science Center has considered that, and, obviously,
20 it's not our prerogative to determine the risk that the council is
21 willing to accept, and so I don't think we're troubled by
22 retaining, essentially, if a stock falls below the minimum stock
23 size threshold, then your ABC is determined by the rebuilding plan
24 that you put in place, and essentially saying that, for a stock
25 that is not in an overfished status, then we would apply something
26 like a sigma min that represents our true scientific uncertainty,
27 and even allow the council the prerogative to select P^* , as long
28 as, frankly, they don't select 0.5, which then, again, as I said,
29 means no buffer.

30
31 **CHAIRMAN NANCE:** To that point?

32
33 **DR. BARBIERI:** If I may, just a quick follow-up, and so, yes,
34 that's good, and so a couple other questions, and not necessarily
35 for you, and I'm just trying to identify points for us to discuss
36 as we get into this topic, and so, if we go with this approach,
37 which I think would be an improvement, and we use that dX MSST
38 approach, right, we would be applying the Ralston multiplier to
39 the OFL, and then create our yield streams for ABC that way, and
40 I think a question for the committee is, one, how do we want to
41 organize our tiers, right, because this assumes Tiers 1, 2, and 3,
42 that have been predefined, and so that level of sigma that is used
43 for the Ralston multiplier is based on that tier.

44
45 I think this is one of our main tasks, would be trying to think
46 about how we organize our tiers, and, to that point, I wonder if
47 we shouldn't take this opportunity to look at what we now consider
48 our Tier 1 assessments, because this, I think, gives us -- This

1 approach gives us the opportunity to look at differences, and I
2 look at the examples that you have there, and vermilion snapper,
3 king mackerel, and greater amberjack, and the amount of uncertainty
4 in those assessment is expected to be quite large, the difference
5 in uncertainty, right, in those assessments, but they are all,
6 right now, in our Tier 1, and all of them would be subjected to
7 the sigma of 0.36 and the same value of the Ralston multiplier,
8 and basically proportional to their value of OFL, and their buffer
9 would be the same.

10

11 I am just thinking that, one, this would be to organizer our tiers
12 and think about how we want to do this, and we want a breakdown
13 within what we now consider our Tier 1 assessments and some other
14 sub-divisions there, right, to account for those differences.

15

16 Lastly, as part of that, if you want to create a bigger buffer
17 between OFL and ABC, or differences in ABC that are based on having
18 a true estimate of MSY, where we can estimate the stock-recruitment
19 relationship, versus using a proxy. Right now, those two
20 assessments in our Tier 1 have very similar -- They have miniscule
21 differences, and not knowing -- Not having that knowledge about
22 the recruitment dynamics, to that extent, is a big deal, and it
23 goes into projections, et cetera.

24

25 Those are the points that I would identify, my preference in going
26 with the MSST and then our need to perhaps look at how we're going
27 to subdivide our tiers and then using those tiers as a way to
28 account for different values of the Ralston multiplier, if that is
29 appropriate.

30

31 **DR. CALAY:** So just one clarification. The red line that you're
32 looking at on this slide is actually that d of X computed with
33 MSST being that critical -- Not critical value, but incorporated
34 into that calculation, and so, actually, what you're doing -- This
35 is likely to be even more conservative than the rebuilding plan,
36 and so, for an overfished stock, what you're seeing on the board
37 here, it looks like, at least in the case of greater amberjack, it
38 rebuilds significantly faster than a ten-year rebuilding plan, and
39 so we would have to update these graphics for you, if that's what
40 you intend to do, to show that, rather than the calculation that
41 you're seeing on this figure, you're actually going to apply F
42 rebuild, if that is your intention, to calculate ABC for an
43 overfished stock.

44

45 **DR. BARBIERI:** I'm sorry.

46

47 **CHAIRMAN NANCE:** No, you're fine.

48

1 **DR. BARBIERI:** Just real quickly, because I thought that that was
2 prescribed, right, by NS 1, that, when you are in a rebuilding
3 plan, you have to rebuild at F rebuild.
4

5 **DR. CALAY:** You do have to rebuild the stock within a certain
6 timeframe, but, you know, some councils have chosen to use
7 functional control rules that actually concisely lay out the
8 rebuilding plan, and it may be that it achieves the rebuilding
9 faster than a ten-year rebuilding plan would, and, in this case,
10 it does look like this particular shape of the control rule that
11 we put together for the Caribbean Council -- At least in the case
12 of greater amberjack, it suggests that it's more conservative than
13 a ten-year rebuilding plan, and so it actually would achieve
14 rebuilding faster, and so that's why we were saying we could
15 manipulate the equation a little bit, if you chose to, but that
16 would require reevaluation, to make sure it's consistent with
17 Magnuson, or we could simply retain F rebuild for overfished stocks
18 in the ABC Control Rule.
19

20 **CHAIRMAN NANCE:** Thank you. Jim.
21

22 **DR. TOLAN:** Thank you, Mr. Chairman, and I think, in the preceding
23 conversation, that my question has been answered, but I just want
24 to restate it, just to make sure, and I appreciate the fact that
25 the Science Center wants to lean more heavily on the sigma
26 parameter, and it's at least my understanding that we're not
27 talking about formulating a new sigma parameter for each of these
28 stock assessments, but borrowing from the Ralston method and then
29 using those scalars for the different tiers, and am I correct in
30 that?
31

32 **DR. CALAY:** Well, I think that's the most pragmatic thing to do
33 quickly, is to establish a sigma min value, and say, if the Science
34 Center was able to demonstrate that the true scientific uncertainty
35 was larger, than we would use the larger value.
36

37 It may be that we have, at some point in the future, a similar
38 Ralston-style applied to Southeast stocks to present to you, and,
39 at that point, we could obtain a discussion about whether the sigma
40 min could be modified, but, lacking that information today, I think
41 we are, in fact, saying you could apply either the Ralston
42 approach, with data-rich, about 0.36, or the updated approach, or
43 Kristin and Andre Punt's paper, that used projections as well and
44 actually said that the sigma min was closer to 0.5 for data-rich
45 stocks.
46

47 **CHAIRMAN NANCE:** That's what they've gone to, isn't it?
48

1 **DR. CALAY:** Yes, in the North Pacific Council.

2
3 **CHAIRMAN NANCE:** Thank you, Jim. Jason.

4
5 **MR. ADRIANCE:** Thank you. What I have also relates to this first
6 conversation and thinking about SS and the uncertainty it
7 incorporates, and so, having spent most of my time, in this most
8 recent SEDAR, in the recreational group, as I understand it, we're
9 now incorporating the annual uncertainty in those recreational
10 landings, and so, as potentially things change in SS, and there
11 are different parts of the model now incorporating more
12 uncertainty, is there a need then to review this sigma min on a
13 regular basis, or look at these meta-analyses, as the model
14 evolves, so that we're maybe not -- So that whole product that
15 comes out of certain parts of it are incorporating uncertainty
16 better than other parts, but is it reducing that overall
17 uncertainty over time?

18
19 **DR. CALAY:** It's a good question, and certainly it would be best
20 practice to be able to review sigma min on some regular basis. I
21 remind you, again, that it's more than just the within-model
22 scientific uncertainty, but also what would be produced by
23 different model configurations that could be possible, and so the
24 likelihood is that, you know, we won't be able to rapidly and
25 frequently examine sigma min using actual Gulf stocks, but we could
26 certainly attempt to look at some frequently-assessed stocks.

27
28 We've said this for a number of years, honestly, and the stock
29 assessment workload gets away with us sometimes, but I think it's
30 safe to say that our stock assessments currently are no more
31 certain than the North Pacific stock assessments, which tend to be
32 considerably simpler in nature, and probably have considerably
33 more reliable inputs, and so I would say a sigma min of 0.36, or
34 0.5, is certainly an improvement of what we're doing right now,
35 which is closer to a sigma of 0.1.

36
37 The stock assessment outputs are similar to a sigma of 0.1, which
38 is clearly an underrepresentation, and so I -- To summarize, I
39 would say that 0.36 and 0.5 is certainly better, and we would
40 recommend that that be evaluated, at some point, but we don't have
41 the data in front of us to look at that.

42
43 **CHAIRMAN NANCE:** Thank you, Shannon. Doug, please, Doug Gregory.

44
45 **MR. GREGORY:** Thank you, Mr. Chair, and thank you, Shannon, for
46 the presentation and what you produced last year, and it was good
47 to review it all again. I was originally confused by these graphs
48 that have a line diagonally going down to the X-axis, even after

1 MSST has been reached, but, in your presentation, I got the
2 impression that that's just the indication that a rebuilding plan
3 needs to be done.

4
5 I certainly wouldn't want to implement a procedure to follow such
6 a trend without evaluation, because, to me, determining a
7 rebuilding plan is crucial, and what I wanted to do is -- This is
8 important, because, now that a lot of our stocks have MSST of 0.5,
9 that's the Magnuson definition of overfished, and that's not the
10 scientific definition, historically. Historically, the scientific
11 definition is fishing at a level beyond BMSY.

12
13 I much applaud the idea of reducing ABC in the area between the
14 biomass area between MSST and BMSY, even though the graph itself
15 is not really based on any measure of uncertainty, and it's more
16 of an ABC Control Rule to reduce the risk to the population, and
17 I think we need to remind ourselves of this, because we're falling
18 into a mindset that, oh, as long as it's not overfished, it's okay,
19 but, historically, that's not been the case, in the literature.

20
21 My question is, with these graphs, would it make more sense if the
22 diagonal lines just stopped at 0.5, because that region between
23 zero and 0.5 is the rebuilding region, and so I really didn't
24 understand why this orange line goes down line it does. To me,
25 the orange line is -- We could call it a base sigma, the base ABC,
26 from OFL, but the blue line is the result of taking into account
27 that, if you're fishing below BMSY, you probably need to be
28 reducing fishing mortality greater than just from the standard
29 sigma.

30
31 Now, I'm not suggesting that we apply multiple sigma, but I am
32 suggesting that we maybe look at different trajectories for this,
33 and what are your thoughts about that? I have another idea on
34 something, but I can bring that up later.

35
36 **DR. CALAY:** So, in the spreadsheet that I showed in May, there is
37 an example that will allow you to look at some of those
38 flexibilities that you mentioned, if you would like to explore
39 those. You did mention that 50 percent of BMSY is the overfishing
40 definition of out Magnuson, and that's not entirely correct. I
41 mean, that's the minimum level you can set it at, is my
42 understanding.

43
44 **MR. GREGORY:** Right.

45
46 **DR. CALAY:** Yes, exactly, and so, basically, what we have
47 determined to do here is not -- You know, we basically continue to
48 operate our projections at -- Project at constant FMSY and take

1 about the 41st percentile of that and call it ABC. Because our
2 sigma is very narrow out of Gulf stock assessments, that's often
3 producing a buffer of less than 5 percent, and the SSC has done
4 some explorations of that, at various times, and chosen different
5 alternatives that produce a larger buffer, and so it's been
6 recognized, for quite some time, that the stock assessment buffers
7 often are too narrow.

8
9 I think it is your prerogative, as an SSC, to determine whether
10 you want to recommend to the council that they reduce F for stocks
11 that are below BMSY, basically more radically than just what is
12 produced from employing the sigma min, and I have a spreadsheet
13 which we can explore those types of options.

14
15 **MR. GREGORY:** If I may, Jessica, could you put up my slide? I
16 modified your slide, in a couple of different ways. The one I
17 stopped at -- I stopped at BMSY, I mean at MSST, and, to me, the
18 top line, at one, represents OFL, and the gray line, at 0.9,
19 represents the sigma, 0.36 at a P* of 0.4, until you get to BMSY,
20 and, at levels below BMSY, what I was doing, to try to keep things
21 simple, is I simply reduced the ABC on a one-to-one mapping with
22 the percent of biomass at BMSY.

23
24 In other words, if the biomass, current biomass, was 80 percent of
25 BMSY, the ABC would go down to 80 percent of OFL, and so you'll
26 see that the gray line stops at 0.5 MSST, and 0.5 ABC is one-half
27 of OFL, because I could think of this -- Like Luiz was saying, I
28 could think of OFL like this, but not MSST, going down to zero,
29 and the other thing that I thought, to try to simplify this, is to
30 do this at -- To have no critical value, because we shouldn't be
31 getting down to that level.

32
33 Once you get to 0.5, you have a rebuilding plan, and so we really
34 shouldn't be having to deal with a critical level, and the other
35 thing that I did with this is, unlike with your spreadsheet, I did
36 not apply sigma to those values that are less than 0.9, and they're
37 straight one-to-one mapping with the ratio of B to BMSY, and so
38 this is my concept of what would work.

39
40 The only comment that I would have is that we would be adopting a
41 level of uncertainty, in general, but then, when we're below BMSY,
42 we have a prescribed approach that really isn't based on
43 uncertainty. In my mind, it's based more on potential risk to the
44 population and a desire not to fall below MSST.

45
46 One of the concerns that I had about B critical is -- You mentioned
47 earlier gag, and gag now sits at 0.08, and so, if we had a B
48 critical at 10 percent, gag would go to zero, and that's what we

1 tried to avoid in our previous meeting, where we changed Fmax to
2 FMSY, and so that would be counterproductive, and gag is especially
3 interesting, and we probably shouldn't just take the assessment
4 just at face value.

5
6 A lot of things have changed with gag. We went from combined sexes
7 to -- From a single-sex to combined-sexes, and we went from Fmax
8 to F 30 percent, and those changed the results of the assessment
9 as much as anything else in the data, and so I think we need to be
10 careful with establishing a B critical at this point, and so this
11 is my concept of how this would all work.

12
13 Again, if we have an MSST, and, below MSST, we develop a rebuilding
14 plan, and we get back to BMSY or above, and we apply the sigma and
15 quit trying to estimate uncertainty from each assessment. Thank
16 you.

17
18 **CHAIRMAN NANCE:** Thank you, Doug. Trevor.

19
20 **MR. MONCRIEF:** Thank you. Doug did a fair amount of homework on
21 this, for sure. My question is a little bit more, I guess, call
22 it trying to understand it from a little bit higher level, and so
23 we're having a lot of discussions on sigma and how sigma shifts,
24 and, when I was first looking at it, I pictured some sort of
25 negative feedback, where, if you increase the uncertainty around
26 the estimate, then it leads you to a more conservative route, and
27 is that correct?

28
29 **DR. CALAY:** Yes, that is exactly correct. Basically, you would
30 expect the width of that PDF to get larger and larger as your data
31 became more uncertain, and then, even if you stay with a P* say of
32 0.4, because your sigma is getting wider, the buffer would increase
33 as the data become more limited.

34
35 **MR. MONCRIEF:** Okay.

36
37 **DR. CALAY:** But you would do that by having tiers that expand the
38 sigma as the data become more limited, and so Tier 1 might be a
39 sigma of 0.36, and your data-limited tier might be a sigma of one,
40 for example, or 0.72.

41
42 **MR. MONCRIEF:** Okay, and that's kind of where Luiz was getting,
43 where like maybe not everything is a Tier 1 at this point, the way
44 we considered it. The other one was on the Ralston method, where
45 you're calculating logscale deviations for mean biomass, and, when
46 I look at that stuff, you know, my first reaction is to go to the
47 shifts we had in assessments over the last four years, with the
48 introduction of FES and how that plays a role in the outputs of

1 assessments, and how would that play into this kind of method,
2 where you have essentially biomass potentially increasing on the
3 same scale as removals, with the changes in shifts and surveys?
4

5 **DR. CALAY:** There is a slide that shows the Ralston approach, and
6 let me see which one it is. It's Slide 15. If you look on the
7 left, that's Pacific whiting, but you can see that their
8 understanding of the trajectory of the spawning stock biomass has
9 changed dramatically over time, and ours has too, as we've
10 incorporated FES landings, and it will again, as we move towards
11 the state survey landings, and so ours may look very much like
12 that, where new understanding, new data, new scientific
13 approaches, changes the way the stock dynamics appear over
14 subsequent assessments.
15

16 I think that Pacific whiting example is probably not unlike some
17 of our Gulf stock assessments, if we were to look at every stock
18 assessment conducted over the history of that species, and so I
19 think we're in the ballpark, by using the Ralston approach. I
20 mean, clearly, we have not done this work to look at our Gulf
21 assessments, but I imagine we would see much the same sorts of
22 patterns arise.
23

24 **CHAIRMAN NANCE:** Thank you, Trevor. Will.
25

26 **DR. PATTERSON:** Thanks, Mr. Chair. This is a good slide to kind
27 of start talking about an idea that I have, and Shannon just
28 mentioned that, if we look back in time in Gulf assessments, that
29 we might see similar patterns as Ralston et al. produced here for
30 Pacific whiting, but this was a retrospective analysis focused on
31 modeling error and not changes in data inputs.
32

33 I think, fundamentally, what they looked at and what we're dealing
34 with are separate issues. They did a meta-analysis to try to
35 produce a measure of uncertainty, of sigma, across assessments,
36 based on modeling error, and, in their paper, they talk about this
37 is only one form of uncertainty that exists among their
38 assessments, and so, if we're going to take and say, well, we
39 mostly produce P*s of around 0.4, and so 0.4 will be our P* value,
40 and we have a sigma of 0.36, which we have borrowed from Ralston,
41 we wouldn't actually be taking the Ralston approach.
42

43 We would be taking the Ralston estimate, or result, and applying
44 it to different stocks with different live histories in a different
45 region, and we've been talking about this for a decade, and I
46 understand, you know, that there is huge, tremendous workload
47 requirements and requests for the Southeast Fisheries Science
48 Center, and so I totally understand that this hasn't been a top

1 priority, but I just think that, if we're going to say that we're
2 taking the Ralston approach, then we need to take the Ralston
3 approach and not just borrow the Ralston result.

4
5 On the same hand, if we look at the Privitera-Johnson and Punt
6 paper from 2020, and say -- You know, they make a pretty solid
7 argument that projection-based analysis is a better way to approach
8 this problem, and then we should do that projection-based analysis
9 for Gulf stocks, to come up with the estimate of sigma on our OFL
10 values, to then use that in whatever rule we come up with.

11
12 I don't think it's appropriate just to take 0.5 and say this is
13 where they ended up, based on groundfish and a couple of pelagic
14 stocks from the west coast, and then say, okay, well, we think, if
15 we did the analysis here, that it should come in about the same,
16 because we're always amazed that, when we do the assessments, that
17 the sigma values that are produced -- The general consensus is
18 they don't fully reflect the full scientific uncertainty that we
19 have in the assessment.

20
21 The other thing is that let's say that everybody thinks what I
22 just said -- That those are dumb ideas, and it's too complicated,
23 and why mess with all that, and those ideas just don't apply here,
24 and, if we take a P^* of 0.4, and a sigma of 0.36, and that's our
25 Tier 1 example, then we're basically just choosing to reduce ABC
26 from OFL by about 9 percent, and so, for every assessment that we
27 do that's a Tier 1, and we use that approach, we're reducing ABC
28 from OFL of 0.9 percent.

29
30 We can call it sigma, or sigma min, or couch it in these percentages
31 and PDF information, all of that, but we're basically picking what
32 our percent reduction is going to be from OFL to ABC, and so why
33 not just be upfront and create a table that says these are the
34 percent reductions?

35
36 I think that approach is fairly similar to the Restrepo et al.
37 approach from 1998, except, instead of reducing the yield, OFL
38 from the yield, ABC, in their approach, they take a percentage as
39 a target, and so the percentage of F, and so you have FMSY, and
40 so, in our case, that would be the MFMT, and they reduce it to
41 FOY, by 25 percent, and so FOY is 75 percent of FMSY, and so, in
42 our case, FOY would be F ABC, and FMSY would be F MFMT, or the
43 fishing mortality rate that produces MSY.

44
45 By doing the reduction on the fishing mortality side, and I know
46 that's counter to the reauthorized Magnuson Act versus the
47 Sustainable Fisheries Act, but, in doing that, your reduction, in
48 absolute terms, from OFL to ABC shrinks as the stock biomass

1 improves, and so especially once you get above BMSY, and then
2 there's practically no reduction, like 2 or 3 percent, from the
3 yield at FMSY versus FOY, or, in this case, MFMT versus F ABC.

4
5 We don't produce an F ABC, obviously, currently, but that would be
6 the analogy, and so, anyway, I think we have to think about this
7 and what's actually happening in practical terms, as a percentage
8 reduction in yield, and the reason I think this is problematic is
9 because the issue that we have in assessments, where we have this
10 driving a stock back in our projections to lower values, because
11 of the dynamics when you get above BMSY, or above MSST even, and
12 that's going to be magnified, I think, by taking this approach,
13 versus scaling this on the F side, but, in practical terms, I think
14 this really just boils down to a reduction, percentage reduction,
15 from OFL to ABC.

16
17 **CHAIRMAN NANCE:** Thank you, Will. Any other general comments?
18 Luiz, please.

19
20 **DR. BARBIERI:** Will, thank you for that. That was interesting and
21 helpful. If I understand your proposal correctly, I mean,
22 basically, we would be developing an ABC control rule to set,
23 right, always -- We would always set, for what we consider Tier 1
24 assessments, by the ABC equal at the yield at FOY? That was a
25 question.

26
27 **DR. PATTERSON:** Can you say that again?

28
29 **DR. BARBIERI:** Maybe I didn't understand what you were saying
30 correctly, right, but I thought that he was talking about applying
31 the Ralston approach.

32
33 **CHAIRMAN NANCE:** I think Will's point is that it's not the Ralston
34 approach, but it's the Ralston number, the value, that was created
35 from their analysis.

36
37 **DR. BARBIERI:** No, that part I understand, but I'm trying to
38 understand what he is proposing, because I think that it would
39 kind of set the tone of our conversation with the council in
40 proposing this, and can you clarify that, Will, please?

41
42 **DR. PATTERSON:** Yes, and I'm sorry. I would have a moment ago,
43 but I thought you were actually talking to Shannon, and I guess
44 the dynamics of in the room versus not in the room and striking in
45 here, but I'm not actually proposing anything. I have made the
46 proposal, in the past, that I think we should take the Restrepo et
47 al. approach. However, that's never gained any traction, and I am
48 not trying to hijack the discussion today.

1
2 I understand that people aren't -- You know, it's a departure from
3 what we've been thinking about and how it's been done in other
4 regions, counter to the reauthorized Magnuson, and I just used
5 that analogy of a reduction in F, which I think is superior to a
6 reduction in yield.

7
8 To sort of drive home the point that we're really talking about,
9 the P* of 0.4, and a sigma of 0.36, that's a fixed-value reduction
10 of about 9 percent from OFL to ABC, and so, instead of calling it
11 sigma, or sigma min, or what have you, we should just say we're
12 going to reduce ABC from OFL by 9 percent, because that's what
13 we're doing, or would be doing, under this scenario.

14
15 **CHAIRMAN NANCE:** Luiz, to that point?

16
17 **DR. BARBIERI:** To that point, Will, I don't think that your point
18 is that you are hijacking the conversation, and I think that you
19 made some good points, that you have made in the past, and I think
20 all of those are important to this discussion, and I really think
21 they are. I think it's a perspective that is important for the
22 SSC to think about and consider, and so I was just trying to
23 understand if what you had proposed, the Restrepo et al. approach,
24 has been a recommendation that we would consider in revising our
25 current ABC Control Rule, to start sort of developing some way
26 forward. We say, okay, we are revising our ABC Control Rule, or
27 considering options to revise our ABC Control Rule, and, if you
28 are putting that on the table as a proposal going forward.

29
30 Then, quickly, just to the other point about the fixed amount, I
31 don't disagree with you one bit, and, I mean, I think it is a fixed
32 amount, right, and I think, in this case, all we need to do is be
33 explicit about what we are doing, right, so people understand that
34 it's not as really quantitative as we may pretend it to be at
35 times, that this is a little bit prescriptive, in a way, of setting
36 up these different levels of fixed buffers associated with
37 different -- What we perceive as different levels of uncertainty
38 within different assessments.

39
40 I think that, as long as we recognize that that's what we are
41 doing, all the other things, I think, would be easier for folks to
42 understand, and then we go from there.

43
44 **CHAIRMAN NANCE:** Thank you. Any others? Shannon, yes.

45
46 **DR. CALAY:** Is it possible to show my screen?

47
48 **CHAIRMAN NANCE:** I don't see any hands. Let's go ahead and -- For

1 that point, let's go ahead and put Shannon's screen up, and then
2 I will have Doug's comment.

3
4 **DR. CALAY:** I just wanted to point out that Will is quite correct,
5 of course, and that the Ralston equation does produce fixed
6 buffers, depending on the P^* and the standard deviation, and it's
7 also in the table that I presented in May, but, basically, at the
8 standard deviation of 0.36 -- For example, at a P^* of 0.4, that's
9 91 percent, and so, essentially, you're taking about a 9 percent
10 reduction, as Will said, between OFL and ABC.

11
12 Then, as you increase the standard deviation to 0.54, we have a
13 larger buffer, et cetera, et cetera, and so Will is exactly correct
14 that this could be simplified, and we could just say, for stocks
15 that are not overfished, we apply straight fraction of the OFL,
16 and that's ABC, and then, if the stocks are declared overfished,
17 we apply the rebuilding plan, F rebuild.

18
19 **CHAIRMAN NANCE:** Thank you. Doug.

20
21 **MR. GREGORY:** Thank you, and thank you for that, Shannon. Again,
22 I prefer the declining trajectory when you go between MSST and
23 BMSY, rather than having ABC be a fixed percentage, regardless of
24 the status of the population between one-half of BMSY to one BMSY.
25 To me, that's a very risky approach, and I like the graphs that
26 were presented, because this fixed ratio only applies after, or
27 above, BMSY.

28
29 Now, I did notice, in the spreadsheet, the pre-decisional
30 spreadsheets, that, in addition to the decline from the level of
31 ABC equals 0.91 down to zero, or B critical, you applied, or the
32 Center applied, the Ralston reduction to even those reduced
33 numbers, which I didn't do in my modified one, because, again, I
34 was trying to keep it simple and straightforward, and we're
35 recommending an ABC below 0.9, or around 0.8, 0.7, 0.6, and we
36 don't need a 10 percent reduction on that, because it's already a
37 dramatic reduction.

38
39 The other thing that is kind of getting my attention now is we've
40 heard a lot about narrow buffers, and we've heard that over the
41 years, but we've never quantified what a narrow buffer is, and, at
42 this point, I think we need to be very careful that we don't go
43 forward with such a subjective idea driving this train, and so I
44 would request that the IPT, which is made up of Regional Office,
45 Center, and council staff, that the IPT try to quantify what our
46 current buffers are, and does it range between two to ten, or is
47 an average of five, and what are our current buffers in our Gulf
48 stock assessments?

1
2 Then how do those buffers compare to other councils? This could
3 be quite a bit of work, and I realize that, but we can't go forward
4 just complaining about something being narrow, because there's no
5 definition, and that's very subjective, and that's not very
6 scientific, and we need to try to quantify what "narrow" is,
7 because it could be three or four years from now, or five years
8 from now, and somebody will go, this 9 percent buffer is too
9 narrow, and it's not good enough, and so we've got to do this all
10 over again, but it would be good to compare this to other councils
11 and what percentage buffers they might have relative to us, and it
12 may come out that ours are too narrow.

13
14 It may come out that ours are like everybody else's, but we just
15 need to get away from the subjective categorization and indictment,
16 and that's my main concern. This is an indictment of our process,
17 that it's not working, it's failed, it's too narrow, but that's
18 not quantifiable, and so it's a slippery slope. Thank you very
19 much.

20
21 **CHAIRMAN NANCE:** Thank you, Doug. Ryan.

22
23 **MR. RINDONE:** Thank you, Mr. Chair. Doug, Tom and I were actually
24 talking about this exact thing at the break, and something that we
25 were talking about was -- That the IPTs could do would be to
26 demonstrate the relationship between the buffer between the OFL
27 and the ABC against the annual variation in landings for a
28 particular stock.

29
30 Some stocks, at least for some fleets, don't have much variation,
31 and some can have some pretty wild swings, but, as a wet-napkin
32 demonstration, if the buffer for a particular stock is -- We'll
33 pull red snapper's, that is currently on the books, and I think
34 it's 2.51 percent, or 2.53 percent, between the OFL and the ABC,
35 but the annual landings variations, commercial and recreational
36 combined, for red snapper are say 10 to 15 percent, across the
37 last ten years or so, and then, under that circumstance,
38 qualitatively anyway, which I recognize is not quite what you're
39 looking for, and you wanted something more precise, but,
40 qualitatively anyway, that would demonstrate that there is
41 obviously some variation going on in there that could definitely
42 swing landings above the ABC, and perhaps above the OFL, depending
43 on the circumstance, but that would at least qualitatively
44 demonstrate the difference between the OFL and the ABC against the
45 variations in landings for a recent time period, say five or ten
46 years or something like that.

47
48 **CHAIRMAN NANCE:** Luiz.

1
2 **DR. BARBIERI:** But wouldn't that be management uncertainty that
3 you're measuring, right, and so it's whatever the level -- The ACL
4 that was set based on that ABC and the difference after that
5 implementation, and so the actual landings will vary.

6
7 **MR. RINDONE:** It's kind of both, depending on what you consider to
8 be the reason for how the landings are performing, and so, in this
9 case of a stock where it doesn't appear as if, over your reference
10 period, and let's say it's the last ten years, you are observing
11 much variation at all, in terms of most fish fleets are catching
12 all of their fish, and let's say red snapper, versus one where
13 it's been quite depressed, and it's not necessarily -- Or at least
14 not entirely a management bias that is causing that, for say gag
15 and its vulnerability to red tide, and just generally some
16 lackluster recruitment.

17
18 Now, you could also argue that part of that recruitment issue is
19 due to exploitation of larger individuals, perhaps like during the
20 summer months, when the only place to find that cool water to catch
21 those fish is in deeper water, which carries other discard
22 mortality and things like that, but, in and of itself, there are
23 -- I think there is the potential for capturing some of the
24 scientific uncertainty, if there's an unknown, or a perhaps not
25 entirely quantified, degree of uncertainty, or influence, that's
26 affecting the amount of biomass that's present, like episodic
27 mortality or other measures.

28
29 Maybe it's something that ultimately could be used to inform both
30 sides of that coin, the scientific uncertainty, to the degree to
31 which the known unknown is at least recognized, and then management
32 uncertainty as well.

33
34 **CHAIRMAN NANCE:** Thank you. Trevor.

35
36 **MR. MONCRIEF:** I am really enjoying the conversation so far, and
37 I'm really starting to grasp this more and more as we go through
38 it, and I agree with Will, I think, with the fact that, if what
39 we're doing, when we're above one, is essentially fixed process,
40 then let's just call it a fixed process, and that's what it is. I
41 think that simplifies it and makes everyone understand the rules
42 before the process is laid out.

43
44 The other thing that I was going to bring up, and I was just kind
45 of thinking through my comment earlier and the response, and kind
46 of gauging this Ralston approach and kind of what Will said. If
47 we're going to do it, we might need to look into it and actually
48 do it for one of the stocks that we have, and I think it would be,

1 you know, somewhat worthwhile, because I think, in the end, if you
2 look at the terminal years, we're going to have a lot higher --
3
4 There's going to be a lot more differences in the terminal year
5 estimates on our assessments compared to what we're seeing with
6 the one that's displayed, because of what was mentioned earlier,
7 and so not only do we have the uncertainty in the beginning, or
8 the differences in the beginning, of the time series, with
9 historical landings influencing the biomass estimates, but we're
10 also going to have the endpoint being different as well, because
11 they're scaled up so high. I think that's going to have to be
12 given a little bit of thought, if that one specifically applies
13 directly to everything we're dealing with on our end, and so that's
14 all. Thanks.

15
16 **CHAIRMAN NANCE:** Thank you, Trevor. Will.

17
18 **DR. PATTERSON:** Thanks, Mr. Chair. This has been a persistent
19 issue, obviously, for the past, you know, decade plus that we've
20 struggled with wrapping our minds around this idea of uncertainty,
21 which is really bias, plus imprecision, in the assessment models
22 from the Gulf and how to accurately reflect that in the reduction
23 of OFL to ABC based on scientific uncertainty, and I understand
24 that, you know, it's on the agenda now, and we've dedicated a
25 considerable block of time here to try to get something pushed
26 forward, to at least have the discussion between the SSC and the
27 council about coming up with an alternative approach to the current
28 ABC Control Rule, and so I totally get that.

29
30 It seems to me that it would be money well spent to -- Whether
31 it's done by SERO or the Southeast Fisheries Science Center or the
32 council, or a combination of the three, to push some funds out
33 through SEMIS or CES or Gulf -- I forget what the institute is in
34 Mississippi, and I'm sorry, but I'm drawing a blank, but the
35 Northern Gulf, NGI, and allow folks to perhaps compete for funding,
36 and to fund a post-doc, and it would be great if it was a
37 collaborative effort among a wide swath of academics and agency
38 scientists in the region, or outside the region, and really dig
39 into this issue to try to do the simulation analysis to examine
40 implications of the Ralston approach to estimate the sigma directly
41 from Gulf assessments, you know attempt to the Privitera-Johnson
42 and Punt approach, which is going to be problematic for some Gulf
43 stocks, red snapper in particular, because we don't have a spawner-
44 recruit function that's well estimated.

45
46 All the issues that we run into doing projections and fixing
47 recruitment to the last however many years, all of those types of
48 stocks are going to be problematic for the Privitera-Johnson

1 approach, and then, also, to look at the Restrepo et al. approach,
2 and do a series of simulations, but, if you use the assessment
3 models as the operational model in those, now you have all the
4 selectivities and retention and all of the dynamics of the fishery
5 built into that and not just basically a life history model.

6
7 It should be a more robust analysis of the implications of these
8 various approaches, and, again, I understand the impetus for this,
9 and the desire to move forward as soon as possible, but we've been
10 in that same position for at least the past five or six years, and
11 I think that would be a way to kind of get us past some of this
12 indecision, and I think different members of the SSC have different
13 reasons for indecision, or not strongly supporting one approach
14 over the other, but, if we had more information, then I think that
15 could inform what we advocate for to move forward on.

16
17 **CHAIRMAN NANCE:** Thank you, Will. Jim.

18
19 **DR. TOLAN:** Thank you, Mr. Chairman, and this is a little bit
20 opposite of what Will just said, but I think Trevor brings up a
21 really good point, and, if we're going to have just a straight
22 reduction, as some percentage based on the sigma value, the P*
23 value, then let's state it right upfront.

24
25 We can still couch that, in my mind, in the BSIA argument that we
26 had the earlier presentation on, and it gets us to the point of
27 our charge, which is to come up with that ABC number, and it may
28 be just a flat reduction, based on those two parameters, but it
29 still fits in what we're supposed to be doing, and so I think it's
30 a great idea to say, hey, this is what it's going to be.

31
32 **CHAIRMAN NANCE:** Thank you, Jim. Doug.

33
34 **MR. GREGORY:** At the risk of repeating what Trevor said, I did
35 want to say one last thing about narrow buffers, and I think it
36 also applies to the suggested approach that Will was just making
37 with F percentages, and there's a difference between the short-
38 term effect and the long-term effect, and that needs to be
39 evaluated.

40
41 With respect to so-called narrow buffers, it may be narrow, but a
42 5 percent buffer, over a ten-year period, has a cumulative effect
43 that's pretty dramatic, and we've seen that with red snapper
44 rebuilding, how it has rebuilt faster than the actual original
45 plan, to an extent, and the same thing with applying F. Short-
46 term Fs may have a different effect than equilibrium Fs, and so we
47 can keep that in mind, but, you know, there's short-term effects
48 and long-term effects. Thank you very much.

1
2 **CHAIRMAN NANCE:** Thank you, Doug. Luiz.
3

4 **DR. BARBIERI:** Thank you, Mr. Chairman. Just a couple of points
5 for discussion, because we are kind of discussing some of these
6 issues and going back and forth, and so, Will, to your comment
7 about using the Restrepo et al. approach and that being a more
8 explicit application of a constant reduction across-the-board to
9 all stocks, I mean, that is one approach, and I think that should
10 be on the table as a possibility, right, so that perhaps we put a
11 pin on as one of the options that we would consider, and,
12 basically, that would, in many cases, and not in all cases now,
13 but, in many cases, it would be equivalent to setting ABC equal to
14 OY, which, as Will explained, would have multiple benefits over
15 time, but I see this as an option.
16

17 Another option, perhaps, would be if we go with the Ralston
18 approach, right, and use it as the Center recommended, or proposed,
19 as the Ralston approach, and we are also explicitly applying
20 constant reductions that we know, because the multiplier is known,
21 and it's explicit there in those tables, but what we are doing
22 there, in my interpretation, is recognizing that we cannot really
23 quantify the uncertainty appropriately that is going into these
24 assessments, and there is too many sources of uncertainty that are
25 not accounted for and too many parameters that are just fixed and
26 input into the assessment, and some are very important ones that
27 have -- Like M, natural mortality, that have a very significant
28 impact on determining the productivity of the stock, and we just
29 input that into the assessment as a fixed parameter, usually.
30

31 All of those things we are recognizing and using -- We are
32 accounting for them, but using the Ralston multiplier as basically
33 bins of uncertainty that we are setting up, and it's not very
34 different than what we did in our previous control rule, which had
35 some criteria, non-quantitative criteria, just attributes that we
36 read on that table, and we made -- You know, our brains processed
37 all of that simultaneously, and we made a determination of whether
38 we figured that retrospective pattern was strong or not strong,
39 whether we could account for more or less uncertainty into the
40 assessment process or not, or carry that forward into projections
41 or not, and so we made all those determinations that are non-
42 quantitative, and we made judgment calls, right, expert-opinion-
43 based choices there, that then led us to that value of P*.
44

45 This would be kind of like the same, if we set different tiers, or
46 different layers, I guess, within our Tier 1 assessments, that we
47 would put different assessments into those different layers and
48 use different layers of multipliers that, yes, would be fixed,

1 right, and, yes, they are based on assessments that come from the
2 other side of the country, and completely different stocks, but,
3 when we look at the values of sigma there, right, knowing what we
4 know, by working with a whole lot of assessments over time, those
5 values are reasonable, and they are what, basically, we would
6 expect to see for values of sigma, right, and we are making a
7 judgment call on whether we use one sigma or two sigma or three
8 sigma, based on the tiers, or levels, within our Tier 1, and so
9 something like greater amberjack will not have the same buffer, in
10 that assessment, that we would have with vermilion snapper, for
11 example, or some other assessment that, by looking at all the
12 assessment inputs, and all the model performance and diagnostics,
13 we know that we are dealing with different levels of uncertainty.

14
15 Then, of course, we know that, between stocks that are more heavily
16 fished by the commercial sector, versus the recreational sector,
17 we can account for those uncertainties very differently, right,
18 and the amount of discards, et cetera, et cetera, all the factors
19 that matter into that evaluation, and so I'm just thinking that,
20 based on Will's points, which I think are well taken, the Restrepo
21 et al. approach could be one option, and another option would be
22 to go with the Center's approach.

23
24 I would recommend not using stock status. I mean, that's the point
25 that I disagree with Doug. I mean, I see his point, and I
26 understand it, but I feel that, when we start using stock status,
27 to develop this as criteria for the size of that buffer, we put
28 ourselves, and we put the council, in an awkward situation that we
29 may not be able to explain to folks how this is directly
30 proportional to our perception of just scientific uncertainty,
31 which is our charge here, right, and so those are my points there.

32
33 **CHAIRMAN NANCE:** Thank you. You know, what I'm looking at is we
34 do have -- When we say the Ralston approach, and if we want to see
35 that for Gulf species, then that's a recommendation we can make.
36 In the meantime, we need to do something. I haven't heard anybody
37 say just keep what we've got, and so we need to do something in
38 the meantime, and so that's the discussion that I think we're
39 having, is what do we need to be doing in order to accomplish this.

40
41 **DR. BARBIERI:** I forgot to say something. To Will's point about
42 the simulation, the MSE that could be done, I think that's a very
43 good recommendation, and I think it's something that the Center
44 can pursue, but, you know, having heard, I mean just yesterday at
45 the SEDAR Steering Committee, how the Center is facing situations,
46 in terms of funding, for all the different programs, and the tasks
47 at hand that the Center is facing, I don't know when this would be
48 achieved, and so I would put this as a recommendation going into

1 the future, that the MSE be conducted, or some other simulation
2 exercise, but that, in the meantime, until that is ready to provide
3 information, that we would go with application with the Ralston
4 approach, as proposed by the Center, and so that would be the in
5 between there.

6
7 **CHAIRMAN NANCE:** Thank you, Luiz. Doug.

8
9 **MR. GREGORY:** Thank you, Mr. Chair. I understand what Luiz is
10 saying about stock status, and in my mind, as long as we had MSST
11 as one minus M times BMSY, we were kind of following the
12 traditional historical definition of "overfished", of identifying
13 an overfished stock, and the way that Restrepo et al. presented it
14 was like, okay, at MSY, we've got environmental differences, and
15 we've got changes from year to year, and we can expect the
16 population to fluctuate around the amount related to what natural
17 mortality is.

18
19 Now that we've got MSST, at the level of one-half of BMSY, which
20 again, historically, has been considered a very, very dangerous
21 level, and there was a lot of documentation, in the 1980s and 1990s
22 and 1970s, about, when you're fishing below BMSY, you're at risk
23 of collapse, and so, when we have a population that's between one-
24 half of BMSY and BMSY, I think stock status is important, and I
25 think what it indicates is a different factor for us to consider.

26
27 It's not uncertainty in the sense of what the estimate of OFL and
28 ABC is, but it is a concern of the status of the stock, and our
29 goal is to maintain the stock so that it produces MSY on a
30 continuing basis, and is capable of producing MSY on a continuing
31 basis, and it's not the risk that the council is supposed to
32 identify for us to set ABC, and so there's three factors here now,
33 where, previously, we only had two factors. We had the uncertainty
34 and the risk that the council is supposed to set. Now we've got
35 stock status, which I think is a factor that needs to be
36 considered, and that's what the Southeast Fisheries Center
37 proposal does, graphically. Thank you.

38
39 **CHAIRMAN NANCE:** Thank you, Doug. We'll have Harry, and then we're
40 going to have Jim, and then we're going to -- Then we'll break.
41 Okay. So, Harry, you'll be the last one before lunch.

42
43 **MR. BLANCHET:** I had so much to say, and I'm just going to make it
44 much, much shorter then.

45
46 **CHAIRMAN NANCE:** Keep going, Harry.

47
48 **MR. BLANCHET:** A few points, and, first off, I think, if any of

1 this goes to the -- I think one of the issues, to Doug's point
2 about penalties for having a reduced stock size, it's something
3 that we have not necessarily done a good job of communicating to
4 the council the benefits, in terms of increased harvest for having
5 a higher stock size.

6
7 When we go to the council, typically what we're going to say is
8 we're going to say this is the results of the assessment, and we
9 have a 50 percent chance of overharvest at one million pounds of
10 fish, and we're setting ABC at 995,000 pounds of fish, to account
11 for uncertainty, but we never say that, under the conditions of
12 the current assessment, if your stock were at BMSY, then, fishing
13 at the same rate, your allowable harvest would be 1.3 million
14 pounds of fish, so that there is some tangible, measurable
15 incentive for the council to move toward more abundant stocks that
16 allow for higher harvest.

17
18 When we talk about it, in terms of rates, the rate is flat, but
19 it's not a true -- It's not a true flatness, in terms of the
20 harvest, and it's only in terms of the rates, and so I think that
21 maybe a better job of communicating with what the benefits of
22 having an increased biomass in the water may have -- May do a
23 better job of getting that across, and maybe I'm being too
24 simplistic about that.

25
26 The other point, and I guess this kind of goes toward Will's point,
27 of basically just setting a flat 9 percent reduction for Tier 1,
28 if we look at our existing control rule -- If we look at the P*s
29 that we have used in the past, it has typically ranged between
30 about 0.35 and about 0.43, and a few were outside of that range,
31 but that's typically the range we rattle around in.

32
33 If we use an approach like what we're talking about now, rather
34 than it being at 9 percent, we would be talking about somewhere
35 between about a 6 percent and about a 13 percent reduction, if we
36 continue to use something that's similar to our current selection
37 table for picking a P*, and so not necessarily a 9 percent
38 reduction, and so that was just that, and I'm ready for lunch.

39
40 **CHAIRMAN NANCE:** Thank you, Harry. We'll go ahead and break for
41 lunch now, and we'll reconvene at 1:00 p.m. Eastern Daylight Time.

42
43 (Whereupon, the meeting recessed for lunch on May 10, 2022.)

44
45 - - -
46
47 May 10, 2022

TUESDAY AFTERNOON SESSION

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The Meeting of the Gulf of Mexico Fishery Management Council Standing and Special Reef Fish, Special Socioeconomic & Special Shrimp Scientific and Statistical Committees reconvened on Tuesday afternoon, May 10, 2022, and was called to order by Chairman Jim Nance.

CHAIRMAN NANCE: Okay. We'll go ahead and reconvene. Anyway, let me go ahead and open the floor up, if anyone, over lunch, came up with any ideas or discussion points or questions. That's both webinar and here in the office. Luiz.

DR. BARBIERI: Thank you, Mr. Chairman, and just a quick question. Where are we trying to get to today, or at this meeting? I mean, are we seeing this as a little bit of a longer process that we can sort of extend into perhaps multiple meetings?

CHAIRMAN NANCE: We have our next SSC meeting -- This is on the agenda also, and now the length of that time, Ryan and I left it open, because we didn't know how far we would get in this meeting. This does not have to end today, and it can end today, if we come to some miraculous decision to move forward, or we can set up things that we want to accomplish between meetings, where we can then come back and discuss those, and so this is a pivotal moment in fact that we can --

We set up six hours for discussion, where we can come to agreement on things, and we can have ideas to move forward with and be able to discuss next time, and so we don't have to end today, but we need to come with some mechanism of how we want to start to move forward with this, so that we're not, at every meeting, we're spending a little time on it, and, twenty years from now, we're saying, man, I wish we would have come to agreement, and so we need to move forward on things, but we don't necessarily have to make any solid decisions in this meeting. Luiz.

DR. BARBIERI: Thank you, and so, I mean, I wonder if it would be -- We've done this in the past, right, and if it would be wise for us to try and ask for volunteers for a smaller subset, right, of the SSC that could try and capture some of the ideas that we discussed today, right, and prepare this as a number of options and perhaps develop a two-pager, or bullet points, primarily, that would summarize a way forward, and then this could be a discussion, or the presentation in the background, and all the components of that, at our next meeting. With that, I would recommend that Will

1 Patterson be chair of that subcommittee. Thank you, Mr. Chairman.

2

3 **CHAIRMAN NANCE:** Ryan.

4

5 **MR. RINDONE:** I feel like I'm having some déjà vu here, Dr.
6 Barbieri, and I think this would be the third time the convening
7 of such a group has been recommended, and I hesitate to say that
8 the third time is the charm. If it's not, certainly we now have
9 evidence of a pattern amongst the SSC.

10

11 I would encourage you guys to, I mean, obviously consider this,
12 but also consider working through this problem in the time that
13 we're carving out during the SSC meetings, but it isn't like I
14 don't task you guys with a whole bunch of other stuff to do, and
15 an additional subcommittee is going to be asking further, as far
16 as time goes, because that group is going to need to at least
17 dedicate some amount of time and energy to pursuing this, and so
18 I guess, just respective of that, I would encourage consideration
19 of working on it within the meetings.

20

21 We have time, a lot of time, and the rest of today, carved out for
22 this, and I have a few hours carved out in July, and I can carve
23 out some time again in September, and we can just continue to take
24 whacks at this thing. I will say that, during my tenure here,
25 this is by far the best discussion that we've had on the topic, in
26 terms of you guys really identifying what you want, like what
27 you're wanting to achieve and what you know that you don't know,
28 as far as things that you want to see done, and so it's off to a
29 good start, at least based on my experience, and so, you know,
30 don't take your foot off the gas now.

31

32 **CHAIRMAN NANCE:** I think we can continue with that, and I'm going
33 to let Will, just because his name was mentioned. Will.

34

35 **DR. PATTERSON:** Thank you, Mr. Chair. A lot of this feels like
36 Groundhog Day, what Ryan was just alluding to, and I think that,
37 if we had a clear task, that revisiting having a separate working
38 group would be useful. I do think that Luiz Barbieri is uniquely
39 qualified to lead that group, given his research background and
40 experience in fisheries management, a member of two SSCs, a
41 participant in multiple national SSCs, and I just think he's
42 uniquely qualified to lead such a group, but I will go back to
43 what I had mentioned earlier about funding a post-doc to actually
44 do the analyses that we've mentioned in the past and that I
45 mentioned again here today.

46

47 I just think that we're kind of doomed to repeat past failures,
48 unless we actually have the analytical products to evaluate how a

1 change, or what potential changes, in the control rule might
2 actually yield, you know, and we're not actually adding any new
3 information to the mix here, and I appreciate Shannon's
4 presentation this morning, but we've considered that approach,
5 and, by approach, I mean borrowing the results of the Ralston
6 analysis and applying them to the Gulf.

7
8 I don't think that's actually applying, or utilizing, the Ralston
9 approach, and I think that's just applying its result, or their
10 result, but, anyway, I think that's the kind of missing ingredient,
11 as far as my perspective, that and, of course, Luiz's leadership.

12
13 **CHAIRMAN NANCE:** Thank you, Will. I guess I could put Luiz and
14 Will in a room together. Shannon.

15
16 **DR. CALAY:** Thanks, Chair. I think, as long as this SSC is likely
17 to use the sigma min from a Ralston-style approach, actually
18 computed using the Southeast Fisheries Science Center stock
19 assessments -- I have talked with the team, and it is something
20 that we can probably produce. What we don't want to do is produce
21 information that is not of utility, and so, essentially, if this
22 SSC says, yes, we're interested in a Ralston-style sigma min, but
23 we want it informed by Gulf stock assessments, then we can have
24 that prepared in time for future discussions.

25
26 **CHAIRMAN NANCE:** Luiz, to that point?

27
28 **DR. BARBIERI:** Real quick, and thank you, Mr. Chairman. Shannon,
29 can you give us an idea, and I know it's difficult to predict how
30 long it would take to get this ready, but I think this would be
31 important to know, when you could come back and present that to
32 the SSC, because, to me, you know, as I said before, I think that
33 Will's point was a valid one, and a great suggestion, but, if this
34 is going to take basically two years to be completed, then we will
35 have to adopt something interim, that moves us from where we are
36 now to something that's more desirable, until we can have that
37 better informed by our -- But, if that can be done sooner than
38 later, then, yes, by all means.

39
40 **CHAIRMAN NANCE:** Shannon, to that point?

41
42 **DR. CALAY:** I think it's unlikely that we can have it done by July,
43 because that briefing book deadline would be mid-June, but I think,
44 for the subsequent SSC meeting, we could have a good estimate done
45 by then. Now, I'm not promising the Privitera and Punt approach,
46 because that does involve stock assessment projections, and, as
47 one of you stated, the fact that some of our spawner-recruit
48 relationships are poorly estimated doesn't -- It isn't very helpful

1 in that style approach, but I think the Ralston approach we could
2 -- I have done that, actually, for a national stock assessment
3 workshop years ago, and it's not, computationally, very
4 challenging, and so I think we can have it done by the fall.

5
6 **CHAIRMAN NANCE:** Thank you. Dave.

7
8 **DR. CHAGARIS:** Thank you. I was just going to also throw in my
9 support for the analysis, whether it be through a post-doc or the
10 Science Center, and even maybe the post-doc approach would still
11 be good to run these types of projection simulation testing of the
12 harvest control rule, but I also wanted to say that, I mean, I
13 really appreciate the presentation, and I thought the discussion
14 this morning was really good, but there's a lot of things swirling
15 around in the discussion, and maybe, to help move things forward,
16 there's really like six decision points that I think we have to
17 work through around these harvest control rules.

18
19 You have your sigma, which we talked a lot about, and you also
20 have what goes on the Y-axis, and are we talking about a buffer,
21 or a fishing mortality rate, and then you've got your B max, your
22 B critical, and your Fmax, your maximum fishing mortality
23 threshold, and there may be even an F critical, and so F may not
24 have to go to zero. It could go to something really low, just to
25 keep the fishery intact.

26
27 Maybe a way forward is to start nipping off each of those decision
28 points and see what's needed and how we go about specifying them,
29 and I would also like to just, as we're thinking about that, make
30 sure that we don't box ourselves in with any one decision that
31 won't apply well across all species, and so like we were talking
32 earlier about this constant reduction of roughly 9 percent, and I
33 would be concerned about making that decision now, and then we get
34 down the road, and there is some situation, and so we need to try
35 to think ahead and anticipate the challenges that might come before
36 us.

37
38 **CHAIRMAN NANCE:** Thank you. Harry.

39
40 **MR. BLANCHET:** Thank you, Mr. Chair. To the point of the analysis,
41 I think it would be extremely useful, not just for our own utility,
42 but also in terms of communicating to the council why we are moving
43 from these relatively narrow buffers to a broader buffer. Having
44 information from the Southeast fisheries I think will be a lot
45 more -- A much stronger argument than if we're borrowing the
46 information from the west coast, even though -- Even if we were
47 using the same types of analyses, but it's just such different
48 ecosystems that it would make it much easier for our council

1 members, I believe, to agree to go along with this, if they see
2 that that kind of variance is also present here.

3
4 **CHAIRMAN NANCE:** Okay. Thank you. Shannon, let me ask you, and,
5 if we would like the Center to do that -- Ryan, I'm assuming that
6 would be something that the council would need to ask?

7
8 **MR. RINDONE:** I think you guys would ask the council to ask the
9 Center, and the Center knows that -- I mean, because is going to
10 be a tasking of some not insignificant amount of time for those
11 responsible, and so, if the Center hears about it today, they can
12 certainly start working on it now, expecting a council request to
13 that effect, which we have one of them here today who can talk a
14 little bit more about you guys' discussions and rationale, from
15 his perspective.

16
17 **CHAIRMAN NANCE:** Shannon.

18
19 **DR. CALAY:** Thanks. I do want to be clear though that what we can
20 do by fall is estimate sigma min, using a Ralston approach and the
21 typical Gulf stock assessments, but evaluating a control rule
22 through an MSE is much more time consuming, and that will require
23 probably a post-doc and more than a year, but we can give you an
24 estimate of sigma min from a suite of Gulf stock assessments.

25
26 **CHAIRMAN NANCE:** So from -- Go ahead, Luiz.

27
28 **DR. BARBIERI:** No, go ahead.

29
30 **CHAIRMAN NANCE:** I was just -- From our discussions, what do we
31 need to specify, in order for you to deliver a product that would
32 be useful to us?

33
34 **DR. CALAY:** Well, you know, basically, I think I understand the
35 task at-hand. You know, it's up to you whether you want to be
36 specific about which stock assessments. The ones that are most
37 useful in the process for Ralston at the ones that we assess
38 frequently, and so we would have many stock assessments, over a
39 number of years, to compare, and so I think, if you want to be
40 specific about the species, you could be, or you could just leave
41 it to us to attempt to use all the ones that are appropriate for
42 that analysis.

43
44 **CHAIRMAN NANCE:** Dave brought up some points, and would those need
45 to be discussed and specified before that, or would that be
46 something that we could look at after the analysis?

47
48 **DR. CALAY:** Well, basically, the approach will require multiple

1 realizations of a stock assessment, and so it has to be one that's
2 been conducted more than once, for example, but we have a suite of
3 frequently-assessed species that we could basically use, or you
4 can say do red snapper, red grouper, gag grouper, king mackerel.
5 It's up to you.

6
7 **CHAIRMAN NANCE:** Luiz.

8
9 **DR. BARBIERI:** Thank you, Mr. Chairman. If we start thinking about
10 this here, right, of what kind of guidance we want to provide to
11 the Center, and so, you know, sigma is one value, and this will
12 come out of the analysis, and so we know that the analysis is going
13 to be producing that, the sigma min, and then we can decide on how
14 we're going to -- You know, whether we're going to double and
15 quadruple or whatever criteria we want to have with that sigma
16 min, but then, for the analysis itself, I am thinking how do you
17 want to structure this, because I think that, if either -- The
18 Center's analysis will generate the sub-groups, based on values of
19 sigma min, or the actual sigma that are associated with each one
20 of those, if we can have those properly estimated, but I am
21 thinking, you know, at some point, we want to differentiate, within
22 our Tier 1 assessments, the ones that we believe are higher versus
23 lower uncertainty, for whatever reason, and I don't know if those
24 are going to just come out of the analysis.

25
26 Also, I think this is an opportunity for us to revisit this issue
27 of how much buffer we assign, or different buffers that we assign,
28 between assessments that are based on true estimates of MSY, where
29 the stock-recruitment relationship can be estimated, versus using
30 a proxy.

31
32 I always felt that, when you go to an SPR, you are really now, on
33 a per-recruit basis, and you are acknowledging explicitly that you
34 don't know what your recruitment dynamics -- I mean, this is such
35 an important component that we use for managing, an important
36 component of how we structure our projections and all, and, you
37 know, unfortunately, as much as we want to separate our tiers,
38 within that dimension of assessment uncertainty in our previous
39 control rule, the difference between those two was almost
40 imperceptible.

41
42 This might be an opportunity to say, if the Center can do the
43 analysis, that one component there can be you do that analysis for
44 the stocks that we have MSY known, versus the ones that we use
45 proxy SPR for, right, and that would be -- Right?

46
47 **DR. CALAY:** I can certainly have the metadata also available for
48 what FMSY proxy may have been used, and then we could select a

1 subset of stocks to create, for example, a Tier 1 sigma min, versus
2 a Tier 2 sigma min, and so that can be done.

3

4 **CHAIRMAN NANCE:** Dave.

5

6 **DR. CHAGARIS:** I was just going to follow-up a little bit on the
7 question that you asked, and I don't think that -- I think we can
8 move forward with some of these other decisions about what the
9 control rule could look like without holding up -- Without being
10 held up by the Ralston analysis, and so that could almost be
11 independent, and we could still revisit the harvest control rule
12 and then come back and apply that sigma method, and, also, I agree
13 with Luiz, and like we do need to have some contrast in the species
14 that are analyzed, so we can get an understanding for how they may
15 perform, and it may be that some of these species that have SPRs
16 that we think -- That we know have more uncertain assessments,
17 but, because everything has been fixed so much over time, that it
18 actually looks like there is less variability over time, and so it
19 will be interesting to see how it all falls out, and it's hard to
20 speculate what will happen, but I think we can move forward with
21 other components of this ABC Control Rule in the meantime.

22

23 **CHAIRMAN NANCE:** Thank you. Doug.

24

25 **MR. GREGORY:** Thank you, Mr. Chair. I realize that Luiz and others
26 are more familiar with our stock assessments, but my impression is
27 that, in the earlier years, we let the model go to a steepness of
28 0.99, and we said, well, we can't estimate MSY, and so we'll use
29 a proxy, but, in the later years, in recent years, we've had models
30 with a steepness of 0.85 and that sort of thing, where MSY could
31 be estimated, but the review committee, or the SSC, or the analysts
32 said, well, let's not use MSY, and let's go back to using an MSY
33 proxy, and so I wonder if we even have enough MSY-determined
34 assessments to make a comparison between the two.

35

36 I have always wished we could move toward letting the models
37 predict MSY, like we did pre-SEDAR, or pre-SS, and be done about
38 it, and, lately, it seems like going to an MSY proxy seems like an
39 unnecessary -- Another level of uncertainty. Thank you.

40

41 **CHAIRMAN NANCE:** I don't know how many -- Shannon.

42

43 **DR. CALAY:** Well, I don't know the exact number either, but I do
44 agree that it's probably very few, or maybe none, of our recent
45 stock assessments where MSY has been completely freely estimated,
46 and, typically, it's estimated with a prior, and it is zero at the
47 moment, because we had done it historically, as Doug mentions,
48 but, now, we're either estimating it, to establish approximately

1 where within the likelihood profile it falls, and then typically
2 fixing it at value, right, or we're actually establishing a prior
3 distribution and then selecting the mean, the median, of that prior
4 distribution, frequently, and so it's pretty much never freely
5 estimated in the most recent stock assessments in the Gulf.

6
7 **CHAIRMAN NANCE:** Luiz.

8
9 **DR. BARBIERI:** Right, but, still, I mean, unless you tell me
10 otherwise, there are some criteria that we use here to say we
11 actually have an MSY estimate. I mean, we may not have seen one
12 like that in a long time, but you remember, Shannon, some of those
13 were presented to this committee, and, you know, we looked at the
14 criteria, and looked at the diagnostics, and we decided that, no,
15 we're going to go with this, and it looks like it's a reasonable
16 value, and, looking at the diagnostics, there is no reason for us
17 to question this being considered a valid MSY estimate.

18
19 Maybe we don't have enough of those, right, at this point, but I
20 think that, even if we use a prior, and, of course, that -- Now it
21 starts getting complicated, right, because how you constrain the
22 parameters of that prior is going to be key, but fixing it -- You
23 know, it's a different deal, and it's almost like a predetermined
24 establishment of the approach of what the stock is going to be, to
25 some extent, and, of course, we do this in an data-informed way,
26 and we make that choice that way, but, you know, it's a major
27 uncertainty, and that's what I'm trying to think, right?

28
29 **CHAIRMAN NANCE:** Tom.

30
31 **DR. TOM FRAZER:** I am just trying to think about this from a
32 council perspective and the process and what's going to be
33 delivered, right, and considered, moving forward, and so my
34 understanding, based on the discussion now, is that the SSC, and
35 the other interested parties, will work toward implementing,
36 establishing and implementing, a control rule of some kind that
37 adequately characterizes, or captures, the scientific uncertainty,
38 right, and so I think most council members are pretty good with
39 the concept of how an OFL is set and what it represents.

40
41 I think they're becoming increasingly aware of the uncertainty in
42 the assessment process, because of how we artificially constrain
43 some of the input and variables, and so this issue of risk came up
44 in the discussion, and so I don't -- I am wondering if the SSC is
45 going to bring to the council options, as they relate to the ABC
46 Control Rule, and are they going to weigh-in on what's acceptable
47 scientific uncertainty?

1 I don't think they should do that, and I'm just talking out loud,
2 right, and I think that's the purview of the scientific body, to
3 decide how much scientific uncertainty are we comfortable with,
4 moving forward, but I think you have to be in a position to explain
5 to the council why you made that decision and why the approach
6 that you've adopted is an improvement, relative to the old way of
7 doing things.

8
9 Then there's still this issue of how you deal with the management
10 uncertainty, right, and what's been frustrating, I think, from the
11 council's perspective, is when a recommendation of some type of
12 catch advice comes from the SSC, and you get an OFL, and you get
13 an ABC, and you don't have many options, right, and, really, it's
14 you conform to the ABC, unless there's a really compelling argument
15 to add an additional buffer, which most people don't have a strong
16 tolerance for accepting, and so then the issue is strictly an
17 allocation issue, right?

18
19 There's no -- The only risk is the socioeconomic one, and it's not
20 a risk as it relates to the sustainability of the stock, per se,
21 and so it will be interesting, moving forward, if the decision
22 points are, you know, or the recommendations are, here's the ABC,
23 or the control rule, and we think this is the best, and we feel
24 good, and we can defensibly state why we did that, and that's all
25 good, but, moving forward, it would be helpful for the council if
26 we said, you know, here is -- If you consider an ACL, for example,
27 of -- Maybe it's equal to the ABC, or it's 5 percent less, or 10
28 percent, and this is the consequences, or the likelihood, for
29 example, of exceeding that ABC, based on your catch history.

30
31 Then we're in a better position to evaluate things, moving forward.
32 Otherwise, we're not really evaluating risk, and this body is
33 assuming all of the risk upfront, and the council is essentially
34 saying, okay, you put us in a position to say that, however we
35 allocate fish in this process, it's going to be sustainable, right,
36 and so you've assumed the risk, is what I'm telling you, unless
37 you give us some options, moving forward, and so I would like to
38 see -- I think most council members would like to see a further
39 discussion of why you chose an ABC Control Rule, whatever it is,
40 and then talk a little bit about the consequences of different
41 ACLs, moving forward, and what a potential consequence of adopting
42 one of those might be.

43
44 **CHAIRMAN NANCE:** Tom, so what you're saying is, as we move forward
45 with a new ABC Control Rule, that, once that's been established,
46 once we come up with that, then, during our discussions of why
47 we're selecting that ABC, we need to do better about the risk
48 associated with going over or meeting that ABC, and is that --

1
2 **DR. FRAZER:** Yes, and I think you need to be able to say that we
3 feel comfortable, as a group, right, and, I mean, there's lots of
4 factors and variables involved, but say this is an acceptable level
5 of uncertainty, from a scientific perspective, and, if we implement
6 this rule, we're not jeopardizing the sustainability of the stock,
7 right, and, if you want to impose an additional buffer, to account
8 for management uncertainty, this is the likelihood, for example,
9 that you're going to bump up against that ABC, or exceed that ABC,
10 and I think that would be helpful in the council making some
11 decisions.

12
13 **CHAIRMAN NANCE:** Luiz.

14
15 **DR. BARBIERI:** Thank you, Mr. Chairman. I think this is very
16 helpful guidance, Tom, because, you know, stuff that we may not be
17 thinking about, in terms of developing this thing and communicating
18 with the council what our intentions really are, and, I mean, if
19 we're going to base this ABC Control Rule criteria, which we still
20 have to establish what the criteria will be beyond just a sigma
21 value, right, because we're going to be putting things into
22 different bins for those different tiers, and we're going to use
23 some other criteria to put those things into those bins, and so
24 this would be one thing.

25
26 Then I think it would be helpful, like you said, for the council
27 to understand that this uncertainty that is handled at this level
28 is basically how well we know where OFL actually is.

29
30 If it's a clear picture to us, then the uncertainty is relatively
31 small, and so we can actually set an ABC fairly close to that and
32 not have a risk of -- Because we know where the edge is, right,
33 and we don't step over the edge that way, but, when you look at
34 something that is very fuzzy and unclear, then you have to separate
35 a little more and put a little more distance there, because you
36 don't actually know where the edge is, and you might be going over
37 it without realizing it, right, and then the other side of that,
38 I think -- So, here, in terms of risk, I think the council is going
39 to have to revisit this issue of P*, because, right now, it's
40 integrated into our ABC Control Rule, and now we are separating
41 it, and they're going to have to make some choices about P*.

42
43 Either they have different P*s in different bins themselves, or
44 they use our bins and just have one P*, like the Ralston approach
45 kind of promotes, but, on the other side, what you're saying is
46 that we usually don't step into that management uncertainty, right,
47 and so going from ABC to ACL is something that -- We leave that
48 conversation to be had at the council level, and, if I understand

1 what you're saying, is that's perhaps, just in a sort of
2 presentation approach to them, to compare what happens, what are
3 we measuring at the ABC Control Rule level, and where things could
4 go, where they could go from that point forward, and I think that's
5 a good idea.

6
7 **CHAIRMAN NANCE:** Ryan.

8
9 **MR. RINDONE:** Thank you, Mr. Chair. Just with respect to the
10 management uncertainty side of things and the linkage that we now
11 have that -- Just because of how the projections were done
12 previously, that we didn't acknowledge it in the same way, and I
13 don't want to say that we didn't have it before, but we just didn't
14 acknowledge it in the same way.

15
16 When the council decides that it wants to make a modification to
17 the sector allocations, the magnitude of that change can have an
18 effect on the projections in a pretty meaningful way, especially
19 as it can affect the terminal year in the assessment and that
20 terminal year estimate of biomass relative to status determination
21 criterial.

22
23 Therein lies a linkage between the scientific uncertainty and a
24 management action that has, within itself, certain inherent
25 management uncertainties, such as the ability to adequately
26 predict and constrain seasons and fishing effort relative to in-
27 season and post-season accountability measures and things like
28 that.

29
30 It's kind of a gray area between the SSC's adherence to being
31 science focused and the council's adherence to being more
32 management focused, where there is -- You guys are kind of
33 overlapping a little bit, and your decisions do affect one another,
34 and just to not lose sight of that, and I think the new projection
35 code does a good job of being able to kind of complete that feedback
36 loop to that terminal year and provide -- Even if it's artificial,
37 because the assumptions that we're making contrast beyond the
38 terminal year, to better inform the uncertainty around the point
39 estimate, and so just to not forget that, and that was all I had.

40
41 **CHAIRMAN NANCE:** Thank you, Ryan. Will, please.

42
43 **DR. PATTERSON:** Thanks, Mr. Chair. You know, part of the
44 discussion -- The frustration in trying to parse all the components
45 of this, for me, is it gets back to this issue about not having a
46 true target under the current paradigm, and there's just a
47 threshold, an OFL, and then you have to buffer away, so that
48 threshold is not exceeded, and then part of the confusion, or

1 issue, with MSST, and setting it as low as 0.5 of BMSY, is the
2 rationale, when that was presented to the SSC, was that we should
3 never be there, because overfishing has been effectively
4 eliminated by the way the legislation was written, and so we
5 shouldn't have an issue with stocks dropping below the MSST, and
6 it would make management less convoluted if we didn't have to
7 constantly switch in and out of rebuilding plans.

8
9 By not having a true target of like what we're trying to achieve,
10 we can't assess how effective management is, right, and simply
11 avoiding overfishing is not a metric for success, because we can
12 set a big buffer and never even come close to overfishing, but the
13 opportunity costs of that approach I haven't seen assessed in this
14 region, and I don't know how well they've been assessed in other
15 regions, but, given the complexity of the fisheries, especially
16 the private recreational sector's magnitude in the Gulf, those are
17 real issues, and it's just tough for me to fully comprehend, or
18 understand, the ramifications of things, like Tom Frazer was just
19 mentioning, because of this issue about their not being a true
20 target to focus on here.

21
22 I will bring that back to the discussion here, in saying that,
23 when we're discussing this buffer and how to set it between OFL
24 and ABC, and we're talking about uncertainty, much of the
25 discussion here has been focused on the width of the PDF on OFL,
26 and I think we're starting to slide into that discussion issues of
27 precision, which is what it was originally meant for, right, the
28 statistical precision of the estimates coming from the assessment,
29 but also bias, or potential bias, right, with potential bias being
30 the unknown unknowns from Shannon's earlier analogy.

31
32 If we're so wrapped up in unknown unknowns, then we can buffer our
33 way down to zero, and, I mean, that's not feasible, and it's not
34 practical, but that's the direction of pressure here, and it's not
35 to -- It's not to promulgate management to produce OY. It's to
36 never, ever even come close to possibly potentially exceeding MSY,
37 and so, in doing this, the P*, that side of the rule, was to deal
38 with the bias parts of uncertainty, and was there a new record to
39 produce recreational landings estimates, and could we believe that
40 that's accurate, and was there a significant environmental effect
41 that wasn't put into the model, right, and so, if we check the box
42 yes, there, then we increase the buffer, by lowering the P* value
43 by whatever increment was in that table.

44
45 If we're going to do away with the table and the probabilities,
46 then it becomes much more difficult, under this scenario, to
47 estimate what our uncertainty actually is, and I understand it's
48 not easy, even under the previous approach, but it's going to

1 become that much more difficult in trying to assess what's a
2 precision issue, what's a bias issue, and I think, when we use the
3 word "uncertainty", we should be specific to say this is an issue
4 of precision, or this is an issue of bias, or potential bias.
5

6 **CHAIRMAN NANCE:** Thank you, Will. Dave.
7

8 **DR. CHAGARIS:** I was going to make a comment on the issue that Dr.
9 Frazer brought up with the scientific uncertainty and management
10 uncertainty, and, really, I think the only way that we can tease
11 those apart is through the management strategy evaluation, and we
12 can actually account for those sources of uncertainty separately,
13 and so I think that's another good reason to try to push that
14 forward.
15

16 I think what we can probably do, within the next couple of
17 meetings, is come up like with our strawman control rule shape and
18 some decisions and have that in place, so that, when the MSE does
19 kick off, they've got a starting point, and I also wanted to just
20 mention that I believe the South Atlantic Council has an MSE
21 initiative for their snapper grouper complex, and there was an RFP
22 that came out a few months ago, and so, if this is going to happen,
23 it might be good to do it in tandem with the South Atlantic and
24 just have some cross-seeding between those two groups, to learn to
25 make it more efficient. Thank you.
26

27 **CHAIRMAN NANCE:** Shannon, is that --
28

29 **DR. CALAY:** Well, I know that's a council and SSC process in the
30 South Atlantic, and the RFP was to actually, you know, hire for a
31 position, I believe, and actually contract that work, and so we're
32 happy to participate in that process, but it would be up to the
33 South Atlantic Council whether that work could be expanded. I'm
34 not sure how far along they are, but I agree with you that we need
35 to get an MSE done, and we need to prioritize that, and so we can
36 look at that option, and maybe others as well, for how that could
37 occur.
38

39 **DR. CHAGARIS:** I wasn't suggesting that we piggyback onto the South
40 Atlantic, but just, while the teams are in place, it helps to have
41 that line of communication.
42

43 **CHAIRMAN NANCE:** No, I agree, and is there -- Was there an MSE
44 position at the Center?
45

46 **DR. CALAY:** Yes, and so we do have an MSE position at the Center,
47 and that's Cassidy Peterson, and I can certainly -- She works
48 directly under John Walter, and I know that John Walter think that

1 this is a high-priority topic, but, that said, Cassidy is extremely
2 busy, and so we can have that discussion at the Center and
3 determine how long it might take for us to address an MSE and
4 whether there is a need for us to fund an additional contractor.

5
6 **CHAIRMAN NANCE:** Because I'm with Dave, in the fact that what we're
7 talking about here is the ABC Control Rule. The management risk,
8 after that, is a whole different thing, and, while it would be
9 good for us to have that discussion and talk to the council about
10 what that risk is, I think -- Maybe I'm wrong, but, today, we
11 really haven't ever discussed that within the SSC, and it's always
12 been here's our OFL, here's our ABC, and that is what is presented.
13 We've not ever, to my remembrance, talked about any risk past that
14 ABC value. Thank you.

15
16 Let me ask this then, and is there anyone on the SSC that has an
17 issue with us making a recommendation to have the council ask the
18 Southeast Fisheries Science Center to develop this analysis that
19 we've discussed?

20
21 **DR. BARBIERI:** Excuse me, Mr. Chairman, but that sounded very much
22 in the tone of a motion there, if I heard it correctly.

23
24 **CHAIRMAN NANCE:** That was my attempt to say that I want to make
25 sure we're all on the same page with this, and, if we are, I would
26 appreciate a motion to that regard. John, please.

27
28 **MR. MARESKA:** I will make that motion for you. **The SSC requests,**
29 **or recommends, the council requests the Southeast Fisheries**
30 **Science Center develop the sigma for Gulf of Mexico stocks,**
31 **utilizing the Ralston method -- I think we talked about using all**
32 **of the Gulf of Mexico stocks, and so would that be Tier 1 stocks?**

33
34 **DR. BARBIERI:** Yes, Tier 1.

35
36 **MR. MARESKA:** **For Tier 1 Gulf of Mexico stocks.** Let's see if we
37 can get a second, and then we can start wordsmithing this.

38
39 **CHAIRMAN NANCE:** We have a motion. John has made a motion that
40 the SSC recommends the council request the Southeast --

41
42 **MR. GREGORY:** I will second it.

43
44 **CHAIRMAN NANCE:** Who is the second?

45
46 **MR. GREGORY:** Doug.

47
48 **CHAIRMAN NANCE:** Doug. Thank you, sir, and so we have a motion

1 and a second. Doug, did you have comment?

2
3 **MR. GREGORY:** I know the Center tried to do something like this
4 five or six years ago, and I thought I heard -- I guess Shannon is
5 now saying that it's timely enough to look at it again, because I
6 would hate for them to go on task that's unachievable, and so my
7 question for Shannon is, instead of looking at a retrospective
8 analysis, is there some other criteria you could look at, from
9 assessment to assessment, that would give us some insight into the
10 variability and the uncertainty?

11
12 The one thing that comes to my mind is to -- Let's say a SEDAR
13 assessment for king mackerel started in 2000, and we've done five
14 or six of them, and could we look at the spawning stock biomass
15 estimates of particular years across those assessments, and I know
16 that we couldn't look at 2010, in an assessment done in 2000, but
17 maybe we could look at spawning stock biomass estimates in 2002,
18 or 2005, done in the subsequent stock assessments, and it seems to
19 me that that would give us an idea of uncertainty, because those
20 spawning stock biomass estimates should be very similar from
21 assessment to assessment, and would that be a reasonable approach,
22 in addition to say the retrospective analysis?

23
24 **CHAIRMAN NANCE:** Shannon, please.

25
26 **DR. CALAY:** So this approach would require us to create SSB time
27 series for all of the stock assessments, and so, in theory, one
28 could do the complete Ralston approach, which looks at all of the
29 years, or one could identify certain years of interest, but the
30 data will all be summarized and tabulated, and so I think we could
31 -- You know, I think, with the data that we will prepare, that we
32 could look at specific years, if the SSC wanted to examine that.

33
34 I did also, since I have the mic, want to say that Kristin
35 Privitera-Johnson actually reached out to me during lunch, and she
36 agreed to share her scripts with us for both Ralston and her
37 extension of that approach and work with our team to create these
38 estimates, and so thank you, Kristin. She is listening.

39
40 **CHAIRMAN NANCE:** Thank you, Shannon, and thank you, Kristin. John.

41
42 **MR. MARESKA:** So does that mean that we can add that request to
43 this motion, because it's a slightly different method.

44
45 **DR. CALAY:** I think you can certainly request it, and we will do
46 it, if it's feasible, but, because it does involve projections,
47 and so many of our stock assessments lack good spawner-recruit
48 relationships, I don't know if it will be productive or not, but

1 it is something that I wanted to explore, and, if it turns out to
2 be a useful result, then we could present it. If it's not a useful
3 result, then we would not.

4
5 **CHAIRMAN NANCE:** This motion would not preclude you from doing
6 that, and is that correct, Shannon?

7
8 **DR. CALAY:** No, it does not, and, I mean, we will certainly look
9 at the Ralston approach, and, if some subset of stocks are also
10 feasible to examine, through the Privitera-Johnson and Punt
11 approach, then we could certainly -- Given that she's willing to
12 reach out and share her code with us, it sounds like we can
13 accomplish that.

14
15 **CHAIRMAN NANCE:** Okay. Thank you very much. Luiz, to that point?

16
17 **DR. BARBIERI:** Yes, and, Shannon, I mean, I think you get the idea
18 of what the SSC is requesting. Fortunately, you're here to, you
19 know, be part of this discussion, and, as a former SSC member, you
20 played a major role in developing the previous control rule, and
21 so you have an understanding of where we're trying to get to, and
22 the idea is for this motion not to be over-prescriptive, in a way,
23 but give you the opportunity to look at this and develop the
24 analysis that you see would go to the steps that need to be taken
25 to get this done without us being over-prescriptive.

26
27 **CHAIRMAN NANCE:** Jack, to that point?

28
29 **DR. ISAACS:** I really just have a question. How many Tier 1 stocks
30 do we have in the Gulf?

31
32 **CHAIRMAN NANCE:** Around thirteen. I am going to say twelve.
33 Thirteen is kind of a bad number, but I'm going to say twelve.

34
35 **DR. TOLAN:** So you've got the over-under.

36
37 **CHAIRMAN NANCE:** Thank you, Jim.

38
39 **MR. GREGORY:** Was that a scientific superstition?

40
41 **CHAIRMAN NANCE:** Yes, it was, Doug. Thank you. I think there's
42 around -- I know there is over ten, but I think we'll have enough
43 -- I think we'll have enough Tier 1 type to be able to get some
44 pretty good estimates on the sigma. Will Patterson, please.

45
46 **DR. PATTERSON:** Thanks, Mr. Chair. I think this motion is
47 definitely a good start. We don't have, in here -- I guess, with
48 Tier 1, that now accounts for data-rich assessments. Instead of

1 saying, "develop the sigma", I would suggest this say, "request a
2 management strategy evaluation be performed to better account for
3 scientific uncertainty".

4
5 **CHAIRMAN NANCE:** There is some discussion. Shannon, to that point.

6
7 **DR. PATTERSON:** After "scientific uncertainty" --

8
9 **DR. CALAY:** I think those two things would have to happen over
10 much different timeframes, and so we would prioritize getting the
11 estimate of the sigma min to inform this discussion, and then I
12 need to go back to the Science Center. It may help to state your
13 desire to have the MSE analysis, but the reality is the resources
14 are limited to achieve that at this time.

15
16 **DR. PATTERSON:** Okay. Well, I guess, if the motion is simply to
17 -- I misunderstood, and this is simply to estimate the sigma for
18 Tier 1 Gulf stock assessments, using the Ralston method, then
19 that's a first step to this, and I think I would abstain from
20 voting on any motion put forward based on the results of that
21 analysis alone, without having a more complete robust analysis
22 done with these other approaches, which I think should include
23 Restrepo and Ralston, as well as the Privitera-Johnson and Punt
24 methodologies.

25
26 Even though many of the Gulf assessments have poorly-estimated
27 stock-recruit relationships, I'm sure we could find some, within
28 categories, similar life histories to other species that we could
29 at least approach that, but it seems to me that we're still going
30 to have a tremendous amount of uncertainty in making this decision
31 if we only make a small step toward better information. In this
32 analysis, we still wouldn't have an idea of how it would actually
33 affect the probability of overfishing.

34
35 **CHAIRMAN NANCE:** Okay. Luiz.

36
37 **DR. BARBIERI:** I don't mean to disagree with Sub-Committee Chairman
38 Patterson here, but, Will, I think that the thing here is moving
39 forward, right, and it's adopting an incremental approach here to
40 where we are now, right, to where we would like to be at some
41 point, and this is why -- I liked your original recommendation and
42 suggestion there for this analysis to be conducted, and I didn't
43 think that we could have had that report in front of us in the
44 next two or three years, before the next two or three years, and
45 Shannon said, no, and, I mean, if, right now, you just want to
46 have a better idea of what the values of sigma min could be for
47 Gulf stocks, we can actually do that analysis and bring that to
48 you sometime this fall, right, and that would allow us to apply

1 that in the development of our revised ABC Control Rule that
2 basically uses the Ralston approach, and potentially the
3 Privitera-Johnson and Punt approach as well, but we would have
4 that in front of us.

5
6 Because she said, and I understand all the constraints there, it's
7 going to take a while for the MSE to be conducted that would allow
8 us to fully evaluate, right, relative to each other, the
9 performance of each one of those methods, we would be able to adopt
10 something, perhaps, interim, until that analysis can be brought in
11 front of us, and that's my understanding.

12
13 **CHAIRMAN NANCE:** I do think this at least moves us forward. We're
14 kind of stuck on the discussion for several years now, and this
15 moves us forward, with the intent that it may not solve everything,
16 but we can move on to other things. Any other comments? Jim.

17
18 **DR. TOLAN:** Thank you, Mr. Chairman. Now that we're back to the
19 original motion, I only had one friendly amendment, and I say
20 develop the value of sigma min for the Tier 1 stocks. That really
21 does get at the genesis for the very first question that I asked
22 after Shannon gave her presentation, was are we just simply going
23 to borrow that sigma value from Pacific stocks, or use the Gulf of
24 Mexico stocks, and I really like moving forward this way, and so
25 I will certainly support this motion.

26
27 **CHAIRMAN NANCE:** Okay. Thank you. Doug Gregory, please.

28
29 **MR. GREGORY:** In support of some of Will's comments, I would like
30 to, I guess, make an amendment to this motion, or, if the body
31 likes, we can make it two different motions, but what I would
32 suggest is, after the word "method", go "and evaluate the
33 feasibility of setting ABC consistently at 75 percent of FMSY, as
34 outlined in Restrepo et al."

35
36 **CHAIRMAN NANCE:** This is me talking, but I think that would be
37 separate.

38
39 **MR. GREGORY:** Okay. I'm fine with that. I will be glad to make
40 it as a separate motion after this one.

41
42 **CHAIRMAN NANCE:** I think let's go ahead and entertain the first
43 motion, and then, Doug, if you would be so kind as to make a second
44 motion after we vote on this one, because I think it's -- We're
45 going to look at the Ralston methodology, and it would be good to
46 look at the Restrepo, if that's possible. I am looking at Shannon,
47 and she's got a little frown, but anyway.

48

1 **DR. CALAY:** It would depend on whether we had projected an FMSY
2 projection, and I don't know -- I think that's what Doug is talking
3 about, is comparing it to the ABC that is produced by a projection
4 of 75 percent of FMSY, which is frequently done, but I'm not
5 entirely sure what Doug is asking for yet, and so I can't comment
6 on whether it can be done.

7
8 **CHAIRMAN NANCE:** Okay. Let's go ahead and -- Harry, do you have
9 a comment on this motion?

10
11 **MR. BLANCHET:** I have a question.

12
13 **CHAIRMAN NANCE:** Okay.

14
15 **MR. BLANCHET:** Who is voting on this? Is this the Standing SSC,
16 or is this something that the Reef Fish or the Socioeconomic or
17 the Shrimp or -- I don't know if the Coral is here or not, but any
18 of the other SSCs, and so that's just a question of who should be
19 voting on this.

20
21 **CHAIRMAN NANCE:** Ryan. Typically, we've had -- For the motions
22 that I have sat on, everybody has voted. This is the first time
23 that we've actually had the Shrimp SSC here, and so it's usually
24 -- For the last meetings, it's been Standing SSC, the Reef Fish
25 SSC, which this certainly, in my mind, is a part of, and we've had
26 the Socioeconomic group, which has always voted, and so I --
27 Carrie, any direction?

28
29 **MR. RINDONE:** If you're present, you can vote. That's typically
30 how we've done these things, and so your expertise has been
31 summoned to the meeting for a purpose, and your expertise might be
32 specific to say shrimp, or to reef fish, or mackerel, or whatever,
33 but you're still an SSC member, at the end of the day, and so, if
34 you're present, we have typically allowed the vote to happen that
35 way.

36
37 **CHAIRMAN NANCE:** Thank you, and we'll continue with that theme
38 then. Thank you, Harry. Let's go ahead and take a vote on this,
39 and I think there's going to be some abstentions, and so I'm not
40 going to ask if there's an objections.

41
42 Let me read the motion first, and then you can take the vote,
43 Jessica. **The motion, as it stands, is the SSC recommends the**
44 **council requests the Southeast Fisheries Science Center develop**
45 **the value of sigma min for Tier 1 Gulf of Mexico stocks utilizing**
46 **the Ralston method.** Let's go ahead and take the vote on that,
47 please, Jessica.

1 **MS. MATOS:** Jim Tolan.
2
3 **DR. TOLAN:** Yes.
4
5 **MS. MATOS:** Richard Woodward.
6
7 **DR. WOODWARD:** Yes.
8
9 **MS. MATOS:** Sean Powers.
10
11 **DR. POWERS:** (Dr. Powers' response is not audible on the
12 recording.)
13
14 **MS. MATOS:** Will Patterson.
15
16 **DR. PATTERSON:** Yes.
17
18 **MS. MATOS:** Jim Nance.
19
20 **CHAIRMAN NANCE:** Yes.
21
22 **MS. MATOS:** Trevor.
23
24 **MR. MONCRIEF:** Yes.
25
26 **MS. MATOS:** Paul Mickle.
27
28 **DR. MICKLE:** Yes.
29
30 **MS. MATOS:** David Griffith.
31
32 **DR. GRIFFITH:** (Dr. Griffith's response is not audible on the
33 recording.)
34
35 **MS. MATOS:** Doug Gregory.
36
37 **MR. GREGORY:** Yes.
38
39 **MS. MATOS:** Benny Gallaway.
40
41 **DR. GALLAWAY:** Yes.
42
43 **MS. MATOS:** David Chagaris.
44
45 **DR. CHAGARIS:** Yes.
46
47 **MS. MATOS:** Harry Blanchet.
48

1 DR. BLANCHET: Yes.
2
3 MS. MATOS: Luiz Barbieri.
4
5 DR. BARBIERI: Yes.
6
7 MS. MATOS: Jason Adriance.
8
9 MR. ADRIANCE: Yes.
10
11 MS. MATOS: Michael Allen. John Mareska.
12
13 MR. MARESKA: Yes.
14
15 MS. MATOS: Donald Behringer.
16
17 MR. BEHRINGER: Yes.
18
19 MS. MATOS: Cindy Grace-McCaskey.
20
21 DR. GRACE MCCASKEY: Yes.
22
23 MS. MATOS: Jack Isaacs.
24
25 DR. ISAACS: Yes.
26
27 MS. MATOS: Jason Saucier.
28
29 MR. SAUCIER: Yes.
30
31 MS. MATOS: Peyton Cagle.
32
33 MR. CAGLE: Yes.
34
35 MS. MATOS: That's it.
36
37 CHAIRMAN NANCE: Jason is not on that list right now. Well, Jason
38 is, but isn't there a shrimp member? Has he already voted? Okay.
39 I am thinking that one of the --
40
41 MR. SAUCIER: I did vote, but she just mispronounced my name.
42
43 CHAIRMAN NANCE: Okay, and I'm trying to see where you're at on
44 there. I see it right there. Thank you. I see it. Okay. I
45 think that's all. Thank you. **It looks like it's unanimous.**
46 There's a couple that are absent, and, Doug, why don't you please
47 make your motion, and then we can have a discussion of it.
48

1 **DR. FAIRBANKS:** This is Luke Fairbanks, and I'm on the call, and
2 I can vote, if you would like me to.

3

4 **MS. MATOS:** Sorry, Luke. What's your vote?

5

6 **DR. FAIRBANKS:** Yes.

7

8 **CHAIRMAN NANCE:** Thank you, Luke.

9

10 **MR. GREGORY:** Jessica, if we could rob the first part of the last
11 motion. **The SSC recommends the council request the Science Center**
12 **--**

13

14 **CHAIRMAN NANCE:** Probably "develop".

15

16 **MR. GREGORY:** No, not "develop". Take that part and add it to the
17 bottom, and take out the word "and". **Evaluate the feasibility of**
18 **setting ABC consistently at 75 percent of F at MSY, as initially**
19 **outlined in Appendix A from the Restrepo et al. report.**

20

21 The important thing here, to me, is that we have used this approach
22 for setting ABC intermittently in the past, and we have, on a
23 number of amendments for fisheries, define OY as 75 percent of F
24 of MSY, and it certainly seems to be a favorite of Will's, and it
25 has logical consistency, but, at the January 2020 council meeting,
26 where the SSC was recommending something similar to this in a
27 different document, a status determination criteria document, the
28 Science Center folks, or the IPT, wanted to change our listing of
29 F of 75 percent, F of 85 percent, F of 95 percent, those options
30 for OY, and they wanted to change that to strict percentages of
31 OY, or percentages of MSY.

32

33 The argument was that, when you're using something like 75 percent,
34 or 85 percent, of FMSY, you might find yourself in a situation
35 where OY is larger than F of MSY. Now, for the life of me, I
36 cannot imagine that, but, if that potential is out there, we need
37 to know it and have it quantified, and so that's what I am trying
38 to get at here, Shannon, because we've used it in the past, for
39 ABC, and we've used it for OY, and, according to that report, and
40 the Magnuson, or National Standards, OY is always to be less than
41 MSY, and so that's my rationale for this motion.

42

43 **CHAIRMAN NANCE:** Okay, and I'm going to not ask for -- I'm going
44 to ask if there's a second for this motion.

45

46 **DR. BARBIERI:** I will second for discussion, Mr. Chair.

47

48 **CHAIRMAN NANCE:** Okay. Luiz will second for discussion. Trevor,

1 please.

2

3 **MR. MONCRIEF:** Just a question on the nature of the motion and how
4 we procedurally go down, once this evaluation occurs, and is the
5 intent here to have this be evaluated, and, if it is feasible,
6 then it's something that is put into place while the additional
7 analysis is happening, for MSE and all that, and kind of what's
8 the thought process here?

9

10 **MR. GREGORY:** To kind of go concomitantly with the other, because
11 what I see, in our discussion today, is we've identified, in my
12 mind, four different potential ABC approaches, and one is the one
13 that the Center recommended, with the slopes and going down from
14 the sigma to lower levels between BMSY to MSST, and that was one
15 approach, and the second one would be to adopt the sigma from the
16 west coast, and the third one is the motion we just passed, and
17 the fourth one is this motion, and so there are four different
18 ways we could go in setting the ABC Control Rule.

19

20 I think this one needs to be fleshed out more, so we can identify
21 what the short-term impacts are, or the long-term impacts. In the
22 Restrepo report, the equilibrium values of OY and MSY were very
23 close, 94 to 98 percent, but, in the short-term, I'm sure they're
24 not that close, and so that is the sort of dynamics that would be
25 interesting to know, and we've used it in the past, and we keep
26 talking about it. Now, I'm open to any wordsmithing, if the way
27 I've worded it is confusing, or misleading, to anybody, or
28 potentially misleading. Thank you.

29

30 **CHAIRMAN NANCE:** Thank you. Trevor, to that point?

31

32 **MR. MONCRIEF:** Just a quick follow-up, and it's not necessarily
33 for Doug directly, but I guess it's more for everybody, and so we
34 just passed a motion for one of the options, to begin looking at
35 a Gulf-specific sigma, and then we're going to look at also this
36 one, potentially, and I'm just wondering about -- You know, is the
37 thought process that we would find some interim approach, where
38 we're doing something more scaled to be able to evaluate, like
39 choosing an option to go in between the time in which we're able
40 to do an MSE for it, or are these going to be multiple options
41 that we're able to look at and choose from when the time arises?
42 I am just trying to look at it procedurally.

43

44 **CHAIRMAN NANCE:** Procedurally, these are motions of what we would
45 like to see in future meetings. If we need to come up with
46 something at this meeting for interim, and like, next month, if
47 we're doing something, then we need to discuss that, and that's a
48 totally separate thing though. Shannon.

1
2 **DR. CALAY:** So I'm requesting just a clarification. This
3 specifically says 75 percent of FMSY, but I think you mean or its
4 proxy. Okay. I did want to point out that there are cases that
5 we've seen in the past where the equilibrium yield, at least, and
6 that's fishing at 75 percent of F proxy, actually exceeds MSY, and
7 it is a property of the spawner-recruit, the SPR-YPR curves,
8 essentially, functions, and so, yes, it is a common term of
9 reference, for Gulf stock assessments, to do a 75 percent of MSY
10 or its proxy projection, and so we could summarize those outputs.

11
12 **CHAIRMAN NANCE:** Thank you. Will, please.

13
14 **DR. PATTERSON:** I had actually sent a motion, a while ago, to the
15 meetings email, that I think captures what Doug is after here, but
16 it puts it in the context of our earlier discussion of an MSE that
17 would include other potential approaches as well.

18
19 **CHAIRMAN NANCE:** So we could have this as the substitute motion.
20 Let me read the substitute motion that Will has sent. The SSC
21 recommends the Gulf Council to request a management strategy --
22 This looks a little bit different than what Doug is proposing.

23
24 **DR. PATTERSON:** I think, if you read to the end, you will see where
25 it captures this.

26
27 **CHAIRMAN NANCE:** What's that, Will?

28
29 **DR. PATTERSON:** Doug is proposing the Restrepo et al. approach,
30 and that is in this motion.

31
32 **CHAIRMAN NANCE:** Okay. Let me -- **The SSC recommends the Gulf**
33 **Council to request a management strategy evaluation to better**
34 **account for scientific uncertainty, including imprecision and bias**
35 **issues, in reducing ABC from OFL estimates or projections from**
36 **data-rich -- Approaches to be considered should be those of**
37 **Restrepo, Ralston, and Privitera-Johnson and Punt, among others.**
38 **Okay.** Go ahead, Luiz.

39
40 **DR. BARBIERI:** Will, just a question. Why do you think that this
41 would make a substitute motion to Doug's? I am thinking about the
42 timelines, right, because Shannon already explained the MSE is
43 going to take quite a while to be completed, and we don't know how
44 long it's going to take, but I don't think we're going to see it
45 for a while, and, Shannon, I may be going out on a limb here, but
46 I would say a couple of years, to get this completed, right?

47
48 **DR. CALAY:** I think that's likely, that it would take in excess of

1 a year, especially if we had to contract it, because first we would
2 have to actually get a source of funding.

3
4 **DR. BARBIERI:** So, Will, I'm not against your motion in any way,
5 and I think that, ultimately, this is what we would like to see,
6 and I would support a motion that makes that request formally to
7 the Science Center, but I can see where Doug's motion is really
8 trying to obtain something probably that we can look at this fall,
9 at the same time that we see the other one, the other analysis
10 they are running, and so, in my view, I think that having this as
11 a substitute motion eliminates the previous motion, and I think it
12 would be counterproductive to this discussion. Do you agree?

13
14 **DR. PATTERSON:** Well, I haven't got a second for it, and so it's
15 kind of moot, but I don't disagree with you.

16
17 **DR. BARBIERI:** Okay. I will second the motion for discussion.

18
19 **DR. PATTERSON:** In Doug's first motion, this could happen more
20 quickly. However, we've been talking about this for the better
21 part of a decade, and we have started this process at least three
22 other times, and we've had bits and pieces of analysis three other
23 times, and, each time, our momentum stalled, because we didn't
24 have the rich complement of information that we would need to fully
25 evaluate this.

26
27 Personally, I don't see much value in doing this partway, even if
28 it's easy and expedient in the near-term, without examining this
29 in a more robust, complete analysis. We've done that, and we've
30 proven to ourselves that it's not efficient, and it's not
31 effective, and we end up at this point again and again, and so
32 that's my perspective.

33
34 **CHAIRMAN NANCE:** Jim and then Sean.

35
36 **DR. TOLAN:** Thank you, Mr. Chairman, but the discussion point that
37 I had dealt with the original motion, and so I think we need to
38 let this one play out, if we get a second or not, and then we'll
39 return to the original motion.

40
41 **CHAIRMAN NANCE:** Okay. Do we have a second for this substitute
42 motion?

43
44 **DR. POWERS:** So I will second it, and I will sneak in my comment.
45 Before Will put in this motion, which I do think makes a lot more
46 sense, for me, because the way that Doug's motion reads, and I had
47 a little bit of this with the first motion, and it seems like we're
48 looking for something that we can just apply all the time, and I

1 don't think we're going to get there, because we need flexibility,
2 a lot of times, and I would like to see the different approaches
3 looked at, so we can get a sense of the strengths and weaknesses
4 and when we want to apply them, because, when we look at scientific
5 uncertainty, or our feel for scientific uncertainty, it varies
6 greatly from different Tier 1 stock assessments to the other, and
7 so a blanket 75 percent of FMSY, or at least examining that as our
8 default, makes me uncomfortable, because I don't feel the same way
9 about the vermilion snapper, as far as scientific uncertainty, as
10 amberjack, and a lot of that has to do with -- I don't think we'll
11 ever find one, and I know the current ABC, and the one Shannon
12 proposed, has the flexibility for us to depart from whatever is -
13 - I think this motion gets at let's examine some of the strengths
14 and weaknesses and the context of what these different approaches
15 do.

16

17 **CHAIRMAN NANCE:** Okay. Thank you. Jack.

18

19 **DR. ISAACS:** (Dr. Isaacs' comment is not audible on the recording.)

20

21 **CHAIRMAN NANCE:** Thank you. Jason.

22

23 **MR. ADRIANCE:** Thanks. I kind of agree with what Luiz was saying,
24 and I see the substitute motion as kind of what we were building
25 towards with these motions of things we can get now, with
26 ultimately wanting to see what the substitute motion says. Thanks.

27

28 **CHAIRMAN NANCE:** Okay. Thank you. Let me ask this procedural
29 question, just out of curiosity, and so the substitute motion right
30 now, and that's what we would vote on, is, if it is accepted, does
31 the other motion just leave?

32

33 **MR. RINDONE:** Yes.

34

35 **CHAIRMAN NANCE:** I mean, could it be resubmitted?

36

37 **MR. GREGORY:** At a different meeting.

38

39 **DR. BARBIERI:** (Dr. Barbieri's comment is not audible on the
40 recording.)

41

42 **CHAIRMAN NANCE:** Okay. Because, right now, if we do this one, the
43 substitute motion, we would do it, and we would have our first
44 data come in in the fall, but then we would have nothing else to
45 look at, and this will come in later. Go ahead, Ryan.

46

47 **MR. RINDONE:** I mean, you guys have -- Like Doug had mentioned,
48 you guys have used 75 percent of FMSY when application of Tier 1

1 in our current ABC Control Rule would likely yield an improbably,
2 quote, narrow buffer. In light of the discussion that you guys
3 have had, the substitute motion is not far afield of the original
4 motion, and so it's all still within the same context, and like
5 Luiz had mentioned, it's the end goal, is to be able to evaluate
6 all of these things.

7
8 It's also not to say that the Science Center couldn't consider how
9 the SSC has previously established catch limit recommendations to
10 the council in the past for some of these different species,
11 because -- I was chatting a little bit with Shannon about this,
12 and, really, what we consider Tier 1 could kind of vary, depending
13 on how you wanted to define Tier 1, and, I mean, is Tier 1 defined
14 as actually using the ABC Control Rule, or is it more in line with
15 what we consider to be a data-rich assessment? For instance,
16 something like gag, we wouldn't consider that to be data poor,
17 clearly, but we also didn't apply Tier 1 of the ABC Control Rule
18 to it, and so I don't think it would be fair, in circumstances
19 like that, not from a status determination criteria, but from a
20 data rugosity criteria, to call those assessments not Tier 1 stocks
21 just because they didn't actually have application of the Tier 1
22 of the ABC Control Rule.

23
24 I think that this is something that could be kind of folded in.
25 Like the aspects of the original motion could ultimately be folded
26 in, as part of your discussion and advice to the Center for how to
27 proceed, through the substitute motion.

28
29 **CHAIRMAN NANCE:** Thank you, Ryan. Luiz, please.

30
31 **DR. BARBIERI:** I pass.

32
33 **CHAIRMAN NANCE:** Okay. Doug.

34
35 **MR. GREGORY:** Thank you, Mr. Chair. In response to Sean's concern,
36 I think the language for the ABC Control Rules are that you follow
37 it, but you don't have to follow it. You have the flexibility,
38 which we've shown in the past, if you have good reason, and we
39 have to explain why we're not following the control rule, but our
40 approach has, for a number of years now, been criticized,
41 repeatedly, for having too narrow buffers, and then, somewhat
42 associated with that is whether it's capturing uncertainty, all
43 the uncertainty we know is out there, and, oftentimes, we'll go to
44 the 75 percent of the FMSY when we don't like the control rule.

45
46 The conundrum that I saw, in the past year or so, is we'll have a
47 stock assessment that uses the control rule, and then we'll have
48 an update assessment, two years later, and we use the OY, or the

1 75 percent, and so we're giving management advice based on two
2 different analyses on the same stock in subsequent assessments,
3 which bothered me somewhat.

4
5 If indeed this approach is problematic, as Shannon says it could
6 be, we need to document that and quit using it, and come up with
7 something else, and come up with a better definition of OY, but,
8 if this approach is effective, then it becomes one of the four
9 approaches we could use, and we might even get creative enough to
10 have a basket of approaches that we can choose from, and I can't
11 imagine that right now, but I don't think the substitute motion is
12 a real substitute motion, in that it will take at least two years
13 for that to be conducted.

14
15 In the meanwhile, we're going to continue along our way of, well,
16 we'll accept the control rule, or we'll do F of 75 percent, going
17 back and forth and back and forth, and it's time we quit kicking
18 this down the road, if we can help it.

19
20 We've been talking about MSEs for years also, and apparently
21 they're not as easy to do as it sounds like, and so I certainly
22 don't support the substitute motion, and I would like to move
23 forward with getting some evaluations of what looks feasible to us
24 as a way to go forward with an ABC Control Rule. Thank you.

25
26 **CHAIRMAN NANCE:** Okay. Rich, please.

27
28 **DR. WOODWARD:** Just a quick question on the substitute motion.
29 Would it be feasible, or desirable, to also include management
30 uncertainty in this analysis? It seems like it might be an
31 opportunity for that.

32
33 **CHAIRMAN NANCE:** I'm sorry, Rich, but --

34
35 **DR. WOODWARD:** I asked if it would be feasible, or desirable, to
36 also evaluate management uncertainty in the evaluation in this
37 management strategy evaluation.

38
39 **DR. PATTERSON:** Jim, can I address that?

40
41 **CHAIRMAN NANCE:** Will.

42
43 **DR. PATTERSON:** Thanks, Jim. I don't think management uncertainty
44 should be included here. You know, the reduction from OFL to ABC
45 is to include scientific uncertainty, and that's what we're after
46 here with the ABC Control Rule. As far as an ACL or ACT rule that
47 the council might have in place, I think the council should request
48 an MSE done to examine those processes, but this is specific to

1 ABC, which is scientific uncertainty alone.

2
3 I don't want us to get too bogged down in the logistics of Roberts
4 Rules here, but, if this motion, as a substitute, doesn't have
5 much support, where folks feel that it's counter to the intent of
6 the original one, I don't know if it can be withdrawn, now that
7 there's a second, but I would rather see that happen than us to
8 have repeated conversation about this not being an adequate
9 substitute.

10
11 **CHAIRMAN NANCE:** Okay. Here's what I would propose, and I'm
12 certainly not an expert in Roberts Rules, but I think, if we
13 withdrew this motion, and we vote on the first motion, and, no
14 matter what happens with it, I think they're two different motions,
15 and then, Will, if you would please -- Once we vote on the original
16 motion, if you would put the other motion back in as its own
17 motion, and I do think that they're both -- I can see what Doug is
18 trying to do, and I think that's doable within a timeframe, and I
19 certainly appreciate what your motion does, because I do think it
20 provides a path forward where we can be able to effectively look
21 at all of these different things in a manner, and so, if you would
22 be willing to do that, I think that we could do that.

23
24 **DR. PATTERSON:** I am if Sean is.

25
26 **CHAIRMAN NANCE:** Sean said yes.

27
28 **DR. PATTERSON:** Okay. Then let's just do that.

29
30 **CHAIRMAN NANCE:** Okay. We're going to vote on the -- Benny, I'm
31 going to let you speak, and then we're going to vote on the first
32 motion that Doug and Luiz made, and then we'll come back, and Will
33 will resubmit this motion. Jessica, you can just keep it up there,
34 but Will will resubmit the next motion, and we can vote on it.
35 Benny, please.

36
37 **DR. GALLAWAY:** Thank you, Mr. Chairman. With your solution, I
38 don't need to speak now. Thank you.

39
40 **CHAIRMAN NANCE:** Okay. Perfect. Jim.

41
42 **DR. TOLAN:** Back to the original question that I had on this one.
43 **Because it's laid out in the first motion above it, are we just**
44 **talking now about Tier 1 stocks?** I just want to make that clear.

45
46 **CHAIRMAN NANCE:** Yes.

47
48 **DR. TOLAN:** Okay. I just thought that we should add that.

1
2 **CHAIRMAN NANCE:** I think that would be -- Yes. So evaluate the
3 feasibility of setting ABC consistently at 75 percent of FMSY or
4 its proxy -- Where would we put that, Jim?
5
6 **DR. TOLAN:** At the end.
7
8 **CHAIRMAN NANCE:** At the end? Thank you. Just put -- I think it's
9 "for Tier 1 stocks". Sean.
10
11 **DR. POWERS:** I'm a little unclear on what "evaluate the
12 feasibility" means, and do we want the actual numbers, or do -- Is
13 he just trying to ask Shannon if they can do it? I assume it's
14 more that the specific numbers, and then I guess the only word
15 that I object to is "consistently at" -- Of setting "ABC
16 consistently", because I guess, Doug, to your question, is this -
17 - Essentially, you're asking if this would work as the default
18 rule, and is that what the meaning of "consistently" -- Is that
19 why the word "consistently" is there, is that you're proposing
20 this as the default, unless we have some strong inclination of
21 another method?
22
23 **MR. GREGORY:** Yes, that was my initial thought, but I don't think
24 it's needed, because this is not the time to decide if it would be
25 the default or not. Since we use this approach quite often, and
26 we've used it as an alternative to our existing control rule --
27
28 **DR. POWERS:** I would feel better if you delete "consistently", if
29 that's fine with you.
30
31 **MR. GREGORY:** That's fine with me.
32
33 **CHAIRMAN NANCE:** Luiz?
34
35 **DR. BARBIERI:** No, I don't have any problem with that.
36
37 **CHAIRMAN NANCE:** Okay. Jack.
38
39 **DR. ISAACS:** This could be splitting hairs, but do we really need
40 the adverb "initially" before "outlined", or can we just say, "as
41 outlined"?
42
43 **MR. GREGORY:** That's fine with me, also. Like I said, I do think
44 of these motions as developing a consensus statement, and so I
45 have no problem with editing, as long as it makes people more
46 comfortable with it.
47
48 **CHAIRMAN NANCE:** Okay. Thank you. Rich, please.

1
2 **DR. WOODWARD:** So that was my question, and what does it mean to
3 evaluate the feasibility? Maybe that's clear to everybody in the
4 room but me, but I'm not sure what that means.
5
6 **MR. GREGORY:** In my mind, it was that statement that Shannon made
7 that sometimes this will not work, and sometimes this will lead to
8 an ABC that's larger than MSY, and, in that case, it's not
9 feasible, and, if that's only on rare, extreme cases, then maybe
10 it is feasible, and so that's what I meant by the word
11 "feasibility".
12
13 **CHAIRMAN NANCE:** I think it's, looking at the utility, is this 75
14 percent of FMSY doable in all cases, to look at that. Okay. If
15 there are no other questions, let's go ahead and -- Dave, please.
16
17 **DR. PATTERSON:** I mean, I was a little bit confused about the
18 feasibility definition there, and would you be willing to make
19 that more explicit, Doug, and just say "evaluate the frequency
20 that setting ABC at 75 percent of FMSY exceeds OFL", just to be
21 more specific about what exactly it is that you're looking to get
22 out of the analysis?
23
24 **MR. GREGORY:** Probably not that. Evaluate the --
25
26 **DR. PATTERSON:** Evaluate the potential for -- I hate to wordsmith
27 on the fly.
28
29 **MR. GREGORY:** Okay. **Evaluate the potential for setting ABC at 75**
30 **percent of FMSY, or its proxy, without exceeding FMSY, or its**
31 **proxy.**
32
33 **DR. PATTERSON:** Okay. To me, that's more clear exactly what we
34 would be looking to get out of the analysis, and I don't know if
35 that helps others.
36
37 **MR. GREGORY:** Yes. Thank you.
38
39 **CHAIRMAN NANCE:** Okay. Let me read the motion, and then we'll go
40 ahead, Jessica, and vote. This is the motion from Gregory and
41 Barbieri. **The SSC recommends the council requests the Southeast**
42 **Fisheries Science Center evaluate the potential for setting ABC at**
43 **75 percent of FMSY, or its proxy, without exceeding FMSY, or its**
44 **proxy, as outlined in Appendix A, the Restrepo et al. report, for**
45 **Tier 1 stocks.**
46
47 **MR. BLANCHET:** Mr. Chairman?
48

1 **CHAIRMAN NANCE:** Harry. I'm sorry.
2
3 **MR. BLANCHET:** Just a suggestion, and you could do a little clean-
4 up if you, after Appendix A", say "of the" and add "1998" after
5 "Restrepo et al.". Thank you.
6
7 **CHAIRMAN NANCE:** Perfect. Thank you. Let's go ahead and -- Dave.
8
9 **DR. PATTERSON:** Just, as you were reading it, I was wondering, and
10 should it be "without exceeding OFL", and then delete "or its
11 proxy".
12
13 **CHAIRMAN NANCE:** Yes. Thank you. That was a good catch. Okay,
14 Jessica.
15
16 **MS. MATOS:** Jim Tolan.
17
18 **DR. TOLAN:** Yes.
19
20 **MS. MATOS:** Sean Powers.
21
22 **DR. POWERS:** (Dr. Powers' response is not audible on the
23 recording.)
24
25 **MS. MATOS:** Trevor Moncrief.
26
27 **MR. MONCRIEF:** Yes.
28
29 **MS. MATOS:** Doug Gregory.
30
31 **MR. GREGORY:** Yes.
32
33 **MS. MATOS:** David Chagaris.
34
35 **DR. CHAGARIS:** Yes.
36
37 **MS. MATOS:** John Mareska.
38
39 **MR. MARESKA:** Yes.
40
41 **MS. MATOS:** Jack Isaacs.
42
43 **DR. ISAACS:** Yes.
44
45 **MS. MATOS:** Luke Fairbanks.
46
47 **DR. FAIRBANKS:** Yes.
48

1 **MS. MATOS:** Jason Saucier.
2
3 **MR. SAUCIER:** Yes.
4
5 **MS. MATOS:** Donald Behringer.
6
7 **MR. BEHRINGER:** Yes.
8
9 **MS. MATOS:** Jason Adriance.
10
11 **MR. ADRIANCE:** Yes.
12
13 **MS. MATOS:** Harry Blanchet.
14
15 **MR. BLANCHET:** Yes.
16
17 **MS. MATOS:** Benny Gallaway.
18
19 **DR. GALLAWAY:** Yes.
20
21 **MS. MATOS:** Paul Mickle.
22
23 **DR. MICKLE:** Yes.
24
25 **MS. MATOS:** Will Patterson.
26
27 **DR. PATTERSON:** No.
28
29 **MS. MATOS:** Richard Woodward.
30
31 **DR. WOODWARD:** Yes.
32
33 **MS. MATOS:** Jim Nance.
34
35 **CHAIRMAN NANCE:** Yes.
36
37 **MS. MATOS:** David Griffith.
38
39 **DR. GRIFFITH:** (Dr. Griffith's response is not audible on the
40 recording.)
41
42 **MS. MATOS:** Luiz Barbieri.
43
44 **DR. BARBIERI:** Yes.
45
46 **MS. MATOS:** Cindy Grace-McCaskey.
47
48 **DR. GRACE-MCCASKEY:** Yes.

1
2 **MS. MATOS:** Peyton Cagle.
3
4 **MR. CAGLE:** Yes.
5
6 **CHAIRMAN NANCE:** Okay. Thank you. We're going to take a fifteen-
7 minute break, and, Will, after that break, would you be so kind to
8 resubmit that motion, and we'll ask for a second on it, and let's
9 go ahead and --
10
11 **DR. PATTERSON:** Sure.
12
13 **CHAIRMAN NANCE:** Thank you. We'll come back at five to, and so
14 2:55 p.m.
15
16 (Whereupon, a brief recess was taken.)
17
18 **CHAIRMAN NANCE:** We're going to go ahead and start, and so
19 everybody come on back to the table. **We have a motion that's been**
20 **submitted by Dr. Patterson, and Sean has seconded that motion, and**
21 **he has reconfirmed that.** Let's continue discussion on this motion.
22 Any discussion from the SSC body? Trevor, please.
23
24 **MR. MONCRIEF:** I will just state that I agree with the motion, as
25 it's worded, and I think it's -- In a sense, it's pragmatic. Let's
26 go ahead and get it out there and put it out as a motion, so we
27 can start to move forward, and I think that's the end goal, based
28 on that conversation that everyone has had through this meeting.
29
30 **CHAIRMAN NANCE:** Thank you, and I do think it's an excellent
31 motion, and I'm going to vote for it, and I think it moves us from
32 where we have been and see where we want to go. It may take a
33 while to do this, which is okay, but at least we have a sense of
34 where we want to look at. Jim, please.
35
36 **DR. TOLAN:** I will throw my hat into supporting this motion. I
37 went back and looked at some of my notes on Will and the Restrepo
38 et al. approach, and it goes back to 2013, and so he's been pushing
39 for this for a while, and I will certainly support this motion.
40
41 **CHAIRMAN NANCE:** Thank you. Benny Gallaway, please.
42
43 **DR. GALLAWAY:** Thank you, Mr. Chairman. Who is this request being
44 made of? Is this also to the SEFSC, or is this someone else?
45
46 **DR. PATTERSON:** I intentionally left out that component, because,
47 in my view, if the Southeast Fisheries Science Center scientists
48 have the capacity and time to do this, then great, but this could

1 also be done by academics, or folks at other agencies, and not
2 just the Southeast Fisheries Science Center, and so it doesn't
3 preclude that, but I intended to leave it open, so that it wasn't
4 just specific to them.

5
6 **CHAIRMAN NANCE:** Thank you, Will.

7
8 **DR. GALLAWAY:** To that point, Jim?

9
10 **CHAIRMAN NANCE:** Yes, Benny. To that point?

11
12 **DR. GALLAWAY:** Would that then need funding from some source, or
13 would you all go out as an RFP, or -- I'm not quite sure how this
14 would work.

15
16 **DR. PATTERSON:** So that's possible. It could be included as a
17 priority in MARFIN or S-K or CRP RFPs, and it could be direct
18 funding through SEMIS or one of the cooperative institutes. I
19 think there are lots of mechanisms for that, and I don't think we
20 necessarily have to specify that here, but there are different
21 ways that can happen.

22
23 **DR. GALLAWAY:** Thank you.

24
25 **CHAIRMAN NANCE:** Okay. Any additional comments? Go ahead then,
26 and I will read the motion, and then we'll be taking a vote on it.
27 **The motion reads: The SSC recommends the Gulf Council to request**
28 **a management strategy evaluation to better account for scientific**
29 **uncertainty, including imprecision and bias issues, in reducing**
30 **ABC from OFL estimated or projected from data-rich Gulf stock**
31 **assessments. Approaches to be considered should include those of**
32 **Restrepo et al. (1998), Ralston et al. (2011), and Privitera-**
33 **Johnson and Punt (2020), among others.** I guess I will ask if there
34 are any -- Well, let's go ahead and do a roll call vote on this.
35 Jessica, go and do that, please.

36
37 **MS. MATOS:** Peyton Cagle.

38
39 **MR. CAGLE:** Yes.

40
41 **MS. MATOS:** Cindy Grace-McCaskey.

42
43 **DR. GRACE-MCCASKEY:** Yes.

44
45 **MS. MATOS:** Michael Allen.

46
47 **DR. ALLEN:** (Dr. Allen's response is not audible on the recording.)

48

1 **MS. MATOS:** Luiz Barbieri.
2
3 **DR. BARBIERI:** Yes.
4
5 **MS. MATOS:** David Griffith.
6
7 **DR. GRIFFITH:** (Dr. Griffith's response is not audible on the
8 recording.)
9
10 **MS. MATOS:** Jim Nance.
11
12 **CHAIRMAN NANCE:** Yes.
13
14 **MS. MATOS:** Rich Woodward.
15
16 **DR. WOODWARD:** Abstain.
17
18 **MS. MATOS:** Will Patterson.
19
20 **DR. PATTERSON:** Yes.
21
22 **MS. MATOS:** Paul Mickle.
23
24 **DR. MICKLE:** Yes.
25
26 **MS. MATOS:** Benny Gallaway.
27
28 **DR. GALLAWAY:** Abstain.
29
30 **MS. MATOS:** Harry Blanchet.
31
32 **MR. BLANCHET:** Yes.
33
34 **MS. MATOS:** Jason Adriance.
35
36 **MR. ADRIANCE:** Yes.
37
38 **MS. MATOS:** Donald Behringer.
39
40 **MR. BEHRINGER:** Yes.
41
42 **MS. MATOS:** Jason Saucier.
43
44 **MR. SAUCIER:** Yes.
45
46 **MS. MATOS:** Luke Fairbanks.
47
48 **DR. FAIRBANKS:** Yes.

1
2 **MS. MATOS:** Jack Isaacs.
3
4 **DR. ISAACS:** Yes.
5
6 **MS. MATOS:** John Mareska.
7
8 **MR. MARESKA:** Yes.
9
10 **MS. MATOS:** David Chagaris.
11
12 **DR. CHAGARIS:** Yes.
13
14 **MS. MATOS:** Doug Gregory.
15
16 **MR. GREGORY:** Yes.
17
18 **MS. MATOS:** Trevor Moncrief.
19
20 **MR. MONCRIEF:** Yes.
21
22 **MS. MATOS:** Sean Powers.
23
24 **DR. POWERS:** Yes.
25
26 **MS. MATOS:** Jim Tolan.
27
28 **DR. TOLAN:** Yes.
29
30 **CHAIRMAN NANCE:** Thank you. Any other SSC motions on the parts of
31 the discussion that we've had thus far? If none, Dave, you had
32 that list, that maybe can discuss some of those items, and if you
33 could maybe take us through that one-by-one, and we could have a
34 discussion on each of those items, and I think that would give us
35 -- We have these things that we put into motion, and I think, for
36 the next meeting, we will be able to -- Or in a couple of meetings,
37 we'll be able to look at those results for two of them, but there
38 are other things that we can talk about and maybe get a sense of
39 where we want to go with some of those other items.
40
41 **DR. CHAGARIS:** The items that I read off the list are basically
42 the change points on the harvest control rule plot, and so I don't
43 know if we have figure that could be brought up from Shannon's
44 presentation, and so I think some of them might be pretty easy, as
45 far as the minimum stock size threshold and BMSY, but all of those,
46 I think, should be considered, as far as --
47
48 **CHAIRMAN NANCE:** Let's go ahead and -- I wonder what --

1
2 **DR. CHAGARIS:** It's the one that had the blue and the red line.
3
4 **CHAIRMAN NANCE:** Would that one be it, or the next one?
5
6 **DR. CHAGARIS:** I would go down.
7
8 **CHAIRMAN NANCE:** I think it's down -- I think it's this one.
9
10 **DR. CHAGARIS:** This one will work.
11
12 **CHAIRMAN NANCE:** Okay.
13
14 **DR. CHAGARIS:** Like, for example, you have two points on the Y-
15 axis and two points on the X-axis, and it's kind of hard to wave
16 my arms when nobody can see it, and so I would -- I guess we could
17 start with what would be considered the maximum fishing mortality
18 threshold, which would be, I guess, essentially that -- Well, it
19 depends on -- I will read off the items again.
20
21 We have sigma, which we've talked about, and the other thing I
22 wrote down that I didn't mention before are the tiers, and I
23 believe that Luiz mentioned that we might want to revisit the tier
24 structure, and is that right, and so that might be an overarching
25 thing, but, as far as the control rule goes, you have your Bmax,
26 which is the biomass at which the maximum fishing mortality can be
27 applied, and, in those figures, Shannon had it set at BMSY, and so
28 it could be at BMSY, or it could be at half of BMSY, or it could
29 be at one minus M times BMSY.
30
31 **CHAIRMAN NANCE:** Those probably are stock specific, aren't they?
32
33 **DR. CHAGARIS:** They would definitely be stock specific, but it
34 would be great if we could come up with --
35
36 **CHAIRMAN NANCE:** A rule of why we would use one over the other? I
37 wonder if -- John.
38
39 **MR. MARESKA:** To that point, I think Doug Gregory brought it up
40 earlier, that we probably want to use the BMSY for a stock where
41 we're using the new MSST definition, and, talking about past
42 failures that we've had, particularly greater amberjack and red
43 grouper, if we're looking at the reference of B to BMSY, if it's
44 below one, then, if we were following that trend, it's less
45 likelihood that we would get into an overfished or overfishing
46 position, and recovery would be a lot quicker for that stock, for
47 those stocks, because, from the stock assessment, we would have
48 the OFL, and we're at a 50 percent chance of overfishing, and yet

1 we still seem to be overfishing, using the MSST line, and so, to
2 me, that's just justification for using that other line, and so
3 that's just something to consider, particularly for the reef fish,
4 to use that BMSY, and, for something like king mackerel, the MSST
5 line.

6
7 **CHAIRMAN NANCE:** Thank you. Harry.

8
9 **MR. BLANCHET:** This is kind of getting into a little bit of the
10 discussion of selection of different curves here, and I think
11 that's a little bit different than where we started off, but far
12 be it for me to continue going down a rabbit hole. I think that
13 this is an appropriate thing for the workgroup, or however it's
14 framed, as part of whatever subgroup Dr. Patterson is going to
15 chair up there, for them to evaluate, but I don't think it's as
16 straightforward as has been outlined, because if we look at actual
17 yield curves, rather than F profiles, you might come up with some
18 very different points, and, in terms of how do you approach this
19 and present it to the council, I think it's going to require some
20 refinement.

21
22 To I believe it was Paul's original point, you also want to have
23 your Bmin, which right now we've got as a 0.1 of BMSY. However,
24 again, I see that as a decision point, and so I was thinking more
25 in terms of the Bmin, but I did want to throw in the other thing.
26 Thank you.

27
28 **CHAIRMAN NANCE:** Thank you, and I think we want to leave it as
29 discussion within the SSC. Dr. Patterson has not been assigned,
30 nor has he volunteered, to chair any committee at this time, and
31 so we'll keep it within this body to discuss these points. Doug,
32 please.

33
34 **MR. GREGORY:** Thank you, Mr. Chair. I guess this is where I become
35 redundant, or get redundant, and the thing that is missing here is
36 these are both ABC alternatives. What's missing is OFL. OFL is
37 one, and so there should be another line across the top at one,
38 and I think the question is, once we get below BMSY, would we want
39 to continue with the same -- Well, let me call it minimal, for
40 lack of another descriptor, but minimal buffer, rather than a
41 gradually-increasing buffer, if the current biomass decreases from
42 BMSY to MSST?

43
44 I also think these curves should stop at 0.5 and not go down to
45 the X-axis, because I would prefer to actually develop a rebuilding
46 program whenever MSST is exceeded, but I think, at this point,
47 it's moot whether the decreasing line, the slope, is more
48 conservative than a rebuilding plan is, because they're both going

1 to be very conservative, because you're trying to rebuild a
2 population from less than half of its maximum sustainable yield.

3
4 **CHAIRMAN NANCE:** Let's go ahead and -- Jessica, can you bring
5 Doug's graph up, please, if that's possible? I think it's a
6 different presentation.

7
8 **MR. GREGORY:** Yes, and I want to remind people that we left gag
9 with an ABC divided by OFL of 0.08, and so, if we use a B critical
10 of 0.1, we're basically saying we would recommend closing the gag
11 fishery, and that is something we tried to avoid, at our last
12 meeting.

13
14 **CHAIRMAN NANCE:** I think it's one more down.

15
16 **MR. GREGORY:** Yes, and what I was trying to show with the first
17 graph is that it continues like the Center graph does, except it
18 goes to zero, and there is no B critical, and, again, because of
19 my logic of establishing a rebuilding program, whenever we get to
20 one-half of BMSY, and so I've got two or three things combined
21 here, and you see that I've got OFL at one, and then the ABC line.

22
23 The difficulty we're going to have, I think, is convincing the
24 council to be more conservative in that interim period between 0.5
25 and one, biomass divided by biomass at MSY, because that is more
26 conservative than just taking into account uncertainty, and so
27 that will be a challenge, and, as Shannon told us last year, she
28 can look at, or give us, different slopes, and my slope happens to
29 be a one-to-one slope, slightly less conservative than what
30 Shannon's graph shows, but it was interesting that, at 0.9 of B
31 over BMSY, my graph is like 1 percent less conservative than
32 Shannon's, or the Center's.

33
34 At 0.5, my graph is 10 percent less conservative, and so, as you
35 get closer to zero, they do diverge a little bit, and I won't
36 repeat this and beat a dead horse, because everybody else needs to
37 think about this and talk about it, but this is where I see this
38 approach going, and our big sell is going to be with the council
39 and having buffers that are bigger than what the uncertainty
40 analysis shows you should have. Thank you.

41
42 **CHAIRMAN NANCE:** Luiz.

43
44 **DR. BARBIERI:** Thank you, Mr. Chairman, and, Doug, we talked about
45 this before, and I understand what the intent here is, and I am
46 not opposed to this, from a conceptual approach, but I just -- I
47 mean, I have to say that I would hate to be the SSC member in front
48 of the council and being asked that question of can you explain to

1 me how this ABC Control Rule is actually abiding, right, in line
2 with the guidelines of NS 1 and actually not being just based on
3 that buffer for scientific uncertainty, right?

4
5 Shannon, sorry to put you on the spot here, but I think that this
6 -- Because this is the Center's, one of the Center's suggestions,
7 or perhaps one of the options presented by the Center, I think
8 that could spill, that question, into the Center as well.

9
10 I mean, I am not against us conversing, right, with the council
11 and saying, listen, there are situations when we would advise you
12 to be more conservative, because there is a risk, a higher risk,
13 here associated with the management of this species, and the
14 uncertainty is beyond what we can appropriately quantify, and we
15 recommend that you go this way.

16
17 Another thing is, because this ABC Control Rule, and our ABC
18 determination, is prescriptive to the council, it becomes
19 difficult for them to depart from them, unless they generate
20 something below, either equal to or below, our ABC, and I think
21 it's going to put us in a -- That's why I'm bringing it up, is
22 it's going to put us in a little bit of a pickle of explaining
23 that to them and the public, given what our role here is as an SSC
24 and to base that buffer between OFL and ABC on scientific
25 uncertainty, and I think that, when we talk about integrating stock
26 status into this, we're stepping a little bit more into the policy
27 issue that is beyond our role, and so I just want to put this there
28 as a word of warning for us to discuss.

29
30 **CHAIRMAN NANCE:** Shannon, to that point, please.

31
32 **DR. CALAY:** Thank you. Yes, I can certainly agree with you, Luiz,
33 that, at least the way it has been interpreted, and I believe has
34 not been objected to by the agency, it is the council's prerogative
35 to determine the MSST level, for example, and it can be set as low
36 as 50 percent of BMSY, and that's what they had chosen to do, and,
37 while the Science Center did, recall, produce a simulation study
38 that demonstrated that that rarely happened, due to the variability
39 we discuss in recruitment, or natural mortality, that almost always
40 happened because of overfishing in the stock.

41
42 That is what happened, and it was ruled to be -- We certified it
43 in the FMPs where it came up, and I think that what Doug is showing
44 would have to be a negotiation, and it would have to be that the
45 council accepted that it was a better idea of their risk aversion,
46 right, because the situation that they have right now was just
47 demonstrated through gag, where, if you get to a level that is
48 below BMSY for some stocks, or even -- Sorry. I mean below 50

1 percent of BMSY, or even substantially below that, then it can
2 result in a very drastic and dramatic rebuilding plan that could
3 essentially end fishing for that stock for quite some time.

4
5 If we were to implement -- I mean, I think the SSC could make a
6 recommendation that the council explore an ABC Control Rule like
7 this, but I do think, ultimately, it's probably the council's
8 prerogative to determine whether they want to move in that
9 direction.

10
11 **CHAIRMAN NANCE:** Thank you. Dave.

12
13 **DR. CHAGARIS:** I think -- I was going to point out that there's
14 other options, as far as like -- I think we were talking about B
15 critical, where F would go to zero, and F doesn't necessarily have
16 to go to zero at B critical, and so there is other options there,
17 if, for example, the biomass were to fall far below BMSY, but we
18 could still have a small harvest that would, you know, keep the
19 fishery on life support and still collect scientific data for us,
20 and that can also be built in, and that's an option that hasn't
21 been shown in these conceptual figures, but you could have an F
22 critical, and so the F, or the buffer, in the case, at that B
23 critical doesn't necessarily have to be zero.

24
25 **CHAIRMAN NANCE:** Thank you. Doug.

26
27 **MR. GREGORY:** Thank you. Also, harking back to our Restrepo paper,
28 in the early parts of the paper, page 18 and 19, they do talk about
29 something similar to this, and let me read it. The dependence of
30 MSST on the MSY control rule is illustrated for linear or linear
31 type of control rule. Here, the MSY control rule sets MFMT
32 constant for biomass levels above BMSY and decreases it linearly
33 with biomass below BMSY. The solid lines and ABC represent three
34 such control rules, and the dashed lines indicate the corresponding
35 MSST levels.

36
37 It's not that this is a new concept, but I do think, and I agree
38 with Luiz that the council needs to be made aware that, when they
39 changed the definition of MSST from one minus M to 50 percent BMSY,
40 they radically changed the playing field, and now, just because
41 something is at 55 percent BMSY, and it's not called overfished,
42 it does not mean, by any stretch of the imagination, that it's
43 healthy.

44
45 So we do have some precedent for this, and I think National Marine
46 Fisheries Service could go a long way, in council meetings and in
47 the discussion about this, that we need something similar to this
48 to have a robust fishery. Thank you.

1
2 **CHAIRMAN NANCE:** Thank you. Luiz.
3

4 **DR. BARBIERI:** Thank you, Mr. Chairman. Quick question, and I
5 don't know if you know this off the top of your head, Shannon, or
6 maybe Patrick, if it's in his back-pocket knowledge from the other
7 councils, but do you know what the value of MSST is for -- I mean,
8 how that is set up for the other councils? I know the South
9 Atlantic Council is at 75 percent of BMSY.

10
11 **DR. CALAY:** The Caribbean Council is also 75 percent of BMSY, and,
12 actually, ICCAT uses BMSY as the overfished definition, and the
13 domestic policy differs for the tunas. They can go as low as 50
14 percent of BMSY, and so I don't know the other councils by heart.
15

16 **DR. BARBIERI:** Well, at some point, I think I saw the Pacific I
17 think uses half of BMSY as well for the MSST, but I may be
18 misremembering this one, and it should be easy to find on Google
19 sometime, but --
20

21 **CHAIRMAN NANCE:** So it sounds like we have other councils at 75
22 percent. Is it 0.5 for all now, or just some? Okay, and so
23 certainly a lot of discussion on this point, and it's almost -- I
24 don't want to say stock-specific still, but I'm not sure -- To
25 make every stock have the exact same linear representation, and I
26 think biology and other things need to come into how this is
27 applied. Ryan, please.
28

29 **MR. RINDONE:** Thank you, Mr. Chair, and so Reef Fish Amendment 44
30 established a minimum stock size threshold for 50 percent of the
31 biomass at maximum sustainable yield for gag, red grouper, red
32 snapper, vermilion snapper, gray triggerfish, greater amberjack,
33 and hogfish.
34

35 **CHAIRMAN NANCE:** All the others are 75 percent?
36

37 **MR. RINDONE:** They may have other definitions, and so they might
38 be 75 percent, or it may be one minus M, and I think, in mackerels,
39 it varies between being based on natural mortality and being a
40 fraction of that BMSY.
41

42 **CHAIRMAN NANCE:** Okay. Harry, please.
43

44 **MR. BLANCHET:** Thank you. I'm sorry, but I got a bit sidetracked
45 here, but, going back to the B critical, I am thinking in terms of
46 F here as a fraction of total mortality, and so, by the time you
47 get down to what we're talking about, 0.1 of BMSY, your fishing
48 mortality is really a small fraction of your total mortality, and

1 so we've had a couple of folks speak about maintaining some small
2 fraction of the fishery, and I'm not sure that, if you don't draw
3 that line straight down to zero, zero, that you don't do the same
4 thing.

5
6 Essentially, there is nothing but a tiny fraction of that fishery
7 left, by the time you get to 0.1 anyway, and so I don't know that
8 there is -- If you're thinking in terms of that, I don't know if
9 there is any benefit in determining a B critical above zero, and
10 I'm just throwing that out for discussion.

11
12 **CHAIRMAN NANCE:** I think the only reason, Harry, would be if you
13 went down to pure zero, and you would have no catch, whereas, if
14 you left it at a tiny fraction of F, at least you would be able to
15 have some catch from that stock.

16
17 **MR. BLANCHET:** You would have no fish left to catch at zero.

18
19 **CHAIRMAN NANCE:** What's that?

20
21 **MR. BLANCHET:** But there's no fish left to catch at zero, and so,
22 at zero, you have terminated that stock.

23
24 **CHAIRMAN NANCE:** Okay, because you're looking at the biological
25 line.

26
27 **MR. BLANCHET:** It's basically a zero biomass, but let's take it at
28 5 percent of BMSY, and, at that point, at 5 percent of BMSY, you're
29 depending upon what your natural mortality is, and it is going to
30 be many multiples of what your fishing mortality is, because you
31 have reduced that fishing mortality down to a small fraction of
32 what the F would be to maintain BMSY, and so your F is much smaller,
33 and your biomass is much smaller. Therefore, your harvest is much,
34 much smaller.

35
36 **CHAIRMAN NANCE:** Yes. Okay. Any other comments on this graph?
37 Dave, I'm not sure we moved in any direction for you, but it's --

38
39 **DR. CHAGARIS:** I mean, I was trying to maybe bite it off piece-
40 by-piece, and if we could, you know, say, well, these might be
41 three options to consider for your Bmax, and get those on paper,
42 but I think it's going to be hard to move this group that way in
43 this format, maybe, and so I don't know, and we can go whichever
44 -- You're the Chair.

45
46 **CHAIRMAN NANCE:** Yes, and I'm trying to move us forward in some
47 area, and, if tiers would be something we could discuss, Luiz, we
48 can talk about tiers, and I think that would be somewhere where we

1 could have a discussion. This one seems to be difficult, in the
2 fact that it's -- If we don't have a species up there, it seems
3 we're having a hard time coming to agreement on different things.
4 Dave.

5
6 **DR. CHAGARIS:** I don't think we need to come to agreement on that
7 today. I mean, I think, if we can get options on the table of
8 these are the things that we're considering, and we really won't
9 know what's best until the MSE is done, and, until that happens,
10 we can only kind of speculate, but there is other things to
11 consider.

12
13 I mean, the rules that we've seen put in front of us now really
14 don't account for any life history, which is why I would like to
15 see natural mortality brought back in, and how does the slope of
16 these lines compare to an F rebuild strategy, and so Shannon
17 mentioned earlier that the greater amberjack rule was more
18 conservative, but what adjustments to that curve could be made for
19 that species, so that, when it did fall below MSST, it would meet
20 the rebuilding plans that we're supposed to be meeting?

21
22 There is a lot to work through on these curves, and I don't think
23 we have to come to an agreement, but, if we can get things on the
24 record, and get options out there, maybe that will help move us
25 forward.

26
27 **CHAIRMAN NANCE:** Thank you. Harry.

28
29 **MR. BLANCHET:** Thank you, Mr. Chairman. To the question of other
30 parameters, P^* , in the Ralston, the discussion of P^* , basically
31 the Pacific Council selected P^* s, and, to me, what that implies is
32 that the Pacific Council is considering P^* in a very different
33 context than what we have considered P^* in the Gulf.

34
35 We have considered P^* as basically a characterization of how well
36 the stock is described by the assessment, and so using P^* as a
37 fixed value for all of their Tier 1 stocks seems to be at a very
38 different approach than the way we have been doing it here, and
39 so, although we may be using the same value as the parameter, I
40 don't know that we're applying it the same way, because a P^* of
41 0.45 -- If you think about it in the Gulf, what we're talking about
42 is that, nine out of every twenty years, you would be overfishing,
43 and a P^* of 0.4 is, eight out of every twenty years, you would be
44 overfishing.

45
46 That is, without considering all of the other parameters that are
47 in that management framework, but that's how we think of -- That's
48 certainly how I think of P^* , and maybe I'm way off on that, but

1 that was just my comment. Thank you, sir.
2
3 **CHAIRMAN NANCE:** Thank you. Doug, please.
4
5 **MR. GREGORY:** Thank you. What I would like to do is present a
6 motion to the effect that the -- Just to help start a discussion,
7 or start the thought process, with the council, that the SSC is
8 discussing the potential need to increase the ABC buffer as a stock
9 biomass decreases below MSY, even when above MSST.
10
11 **MR. RINDONE:** Doug, can you fill in the blanks here?
12
13 **MR. GREGORY:** Decreases below MSY, even when above the 50 percent
14 level of MSST. That needs to be cleaned up, because I don't think
15 this is the case when we have one minus M MSST, and I don't -- **The**
16 **only time we have 75 percent of MSST is when we have a joint stock**
17 **with the South Atlantic, and so we could probably add that, but**
18 **the main concern I have is with the 50 percent level, and so I'm**
19 **saying the SSC is discussing potential needs to increase the ABC**
20 **buffer as the stock biomass decreases below MSY, even when above**
21 **the 50 percent level of MSST.**
22
23 Again, I would welcome any wordsmithing, if I get a second. It's
24 not a recommendation to the council, but just to get them to start
25 thinking about this and discussing it and asking questions of Jim,
26 our presenter, of why would you want to do this. I mean, Luiz
27 raised that question very well, and I can see the council saying
28 why do this, and we don't have to, and Magnuson doesn't make us do
29 this, but we need to explain to them that the stock is at a greater
30 risk the more below MSY that it goes. There is a greater risk of
31 collapse.
32
33 **CHAIRMAN NANCE:** Do we need to have MSY or MSY proxy?
34
35 **MR. GREGORY:** Sure. To me, it's all the same. It's a concept
36 thing.
37
38 **CHAIRMAN NANCE:** Okay. Jessica, could you put "or MSY proxy",
39 please, after "MSY"? Thank you. **The motion, as proposed by Doug,**
40 **is the SSC is discussing potential needs to increase the ABC buffer**
41 **as the stock biomass decreases below MSY or MSY proxy, even when**
42 **above the 50 percent level of MSST.** Do we have a second for that
43 motion?
44
45 **DR. BARBIERI:** Yes, Mr. Chairman. I will second for discussion.
46
47 **CHAIRMAN NANCE:** Okay. Luiz seconds. Any discussion? Trevor.
48

1 **MR. MONCRIEF:** I mean, I'm trying to think about it in general,
2 but would this be something where it state that the SSC recognizes
3 the importance of having the potential to increase the ABC buffer?
4 It's just for discussion purposes, and I'm not sure what the motion
5 actually reads out to, but, to me, essentially, the only thing
6 we're doing is stating that we recognize that this is a discussion
7 that needs to move forward, and we recognize its importance to the
8 work that is being undertaken by the group.

9
10 **MR. GREGORY:** Again, I accept any suggested changes that make
11 people more comfortable. Hey, I grew up on a shrimp boat, and
12 English is not my first language.

13
14 **CHAIRMAN NANCE:** Trevor, do you want to wordsmith?

15
16 **MR. MONCRIEF:** Yes, and so I would say the SSC recognizes the
17 importance of the potential to increase, and so take out "needs",
18 because that's kind of what we're getting to with this discussion,
19 right, is just essentially stating that we recognize this as a
20 matter of importance that needs to continue to be discussed, and
21 is that what I'm kind of getting from the conversation, or the
22 discussion?

23
24 **MR. GREGORY:** I like it.

25
26 **CHAIRMAN NANCE:** Jason.

27
28 **MR. ADRIANCE:** I still feel like there needs to be some ask here,
29 and I feel like all of this is covered in the discussion we're
30 having, but what is the ask here? Are we trying to get at asking
31 the council that, well, we see that importance, but what are you
32 comfortable with? I don't know, and I just feel like there needs
33 to be an ask here, other than the record of the discussion and
34 stating that in a motion.

35
36 **MR. GREGORY:** Jason, if it read "The SSC wants the council to
37 recognize", is that an ask?

38
39 **MR. ADRIANCE:** That would be an ask.

40
41 **CHAIRMAN NANCE:** Let's get Tom's feeling.

42
43 **DR. FRAZER:** I don't think there's a problem with the ask here,
44 right, and, again, what I would just encourage folks to do is to
45 be -- To put yourself in a position to explain to the council why
46 you might impose a buffer to account, and specifically for the
47 scientific uncertainty, but I think I would also be prepared to
48 explain to the council the potential consequences, right, of, you

1 know, adhering to a management practice that keeps you extremely
2 close to that ABC, right?

3
4 Again, I think what you're saying, Doug, is, hey, there's a lot of
5 things that are going on out there, and there's a lot of
6 uncertainty, and you should be aware of your actions and their
7 potential implications for the health or wellbeing of the stock
8 down the road, but that, to me, that's a management and risk
9 decision, and I am just trying to make sure that this body clearly
10 delineates too that there's a need for that discussion and an
11 interaction between the SSC and the council, with regard to
12 management uncertainty and risk, and I would encourage that, but,
13 you know, make sure where everybody stays in their lane.

14
15 **CHAIRMAN NANCE:** I'm looking at this, and it's simply making the
16 council aware that we as an SSC recognize the importance of
17 potentially to increase the ABC buffer as we move below MSY,
18 because the risk is compounded. I don't know how you say that,
19 and I don't want to be defensive, and I think a lot of the council
20 members know this, and I'm not sure how to say that without making
21 them feel like we're coming after them type of thing.

22
23 **MR. GREGORY:** Well, if I may?

24
25 **CHAIRMAN NANCE:** You bet. Go ahead, Doug.

26
27 **MR. GREGORY:** I tend to be more blunt than most of you all, and I
28 would basically tell the council, like I said this morning, that,
29 until the Magnuson Act came along, overfishing and overfished was
30 anything that was below MSY, in the literature, and there was great
31 concern, in the scientific literature, that, if you're fishing
32 below MSY, you're at risk of stock collapse, and so MSY is at a
33 level of a population, in theory, that is one-half the size of a
34 virgin population, and so, if you're at 50 percent of BMSY, you
35 have fished the population down to one-quarter, 25 percent, of the
36 virgin population, and therein lies the risk of potential collapse.

37
38 Whether it's right or wrong that Magnuson went down to 50 percent,
39 or allowed it, and I think that was based on influence from the
40 North Pacific Council, which has much stronger monitoring of the
41 stocks, over many, many years, prior to the Magnuson Act, and so,
42 if people are uncomfortable with it, we don't have to go forward
43 with it, and I just think it's time to start that conversation.

44
45 **CHAIRMAN NANCE:** I appreciate that. Will.

46
47 **MR. GREGORY:** One more thing, if I may.

48

1 **CHAIRMAN NANCE:** Go ahead.

2
3 **MR. GREGORY:** We're fishing at MFMT, and so the stock should not
4 be going down like that, but what we're seeing, in our stock
5 assessments, and gag is a premier example, and red grouper with
6 red tide, but the populations are being influenced by factors
7 outside the control of management, and so it's not unlikely that
8 we could have a population that's healthy in this stock assessment
9 and then overfished in the next stock assessment, and that's due
10 to climate change, or environmental change, and gag is kind of a
11 bigger example of that, because we changed other things, other
12 parameters of the assessment, and that's where the uncertainty
13 comes in, and the variability, between assessment to assessment,
14 and I don't think it's the data, and it's not anything more
15 structural than that, and it's the environment.

16
17 **CHAIRMAN NANCE:** Okay. Thank you, Doug. Will.

18
19 **DR. PATTERSON:** My thoughts on this are it's an important issue,
20 and it's one that Shannon had prominently in the presentation that
21 she gave earlier, and it's come up in our discussions here, in
22 various ways, and I just don't see the value in telling the council
23 that we recognize this issue, or we've discussed it, as a motion.

24
25 I think all of that can be important components of the text of the
26 report from this meeting, because this is an important
27 consideration that we have discussed, but, unless we're actually
28 recommending that something be done at this stage, that we
29 recommend the council revisit the ABC Control Rule in this way,
30 then I'm not sure of the value of the motion.

31
32 **CHAIRMAN NANCE:** Thank you. Harry.

33
34 **MR. BLANCHET:** Thank you. This goes back to -- So the council's
35 minimum stock size thresholds were informed by the analysis that
36 was done by the Southeast Science Center, and that -- Essentially,
37 one of the concerns, that as I understand the council's concern,
38 is that you've got variation, as Doug said, related to non-fishing
39 parameters going on in a stock, and, if you are addressing those
40 non-fishing parameters by adjusting the fishing mortality rates,
41 you end up with a more variable fishing rate, year to year, than
42 you would otherwise.

43
44 Maybe I am oversimplifying that, but, to me, the primary benefit
45 of increasing your spawning stock biomass is that you have more
46 fish in the water, so that that harvest at that same fishing
47 mortality rate gives you a higher harvest, overall, and I said
48 that this morning, and I think that we need to do a better job of

1 supporting increased biomass in the water, in terms of how does
2 this benefit fisheries, how does this increase harvest, how does
3 this increase availability, how does it -- All of those kinds of
4 things that are net positives, as you get to MSY and levels above
5 MSY.

6
7 I don't have an issue with a stock if it is below MSY. I do have
8 an issue when it gets to levels that are -- Well, at 50 percent,
9 and I do have an issue with that, primarily because, as you say,
10 now you're talking about things that Gabriel et al., and all of
11 those folks, have talked about, and you've got measurable risk of
12 depleting the recruitment, and that's where I see some issues
13 coming out, and, before that, you've got growth overfishing going
14 on, and those are the kinds of issues that go away when you have
15 higher stock sizes, and I think that, if we talk about it in those
16 terms, the benefits of increasing stock size, rather than talking
17 about so much the hypothetical negatives of decreasing stock size,
18 I think we get further. Thank you, sir.

19
20 **CHAIRMAN NANCE:** Thank you. The way I'm looking at this is, while
21 I appreciate and understand what we're trying to convey here, as
22 we -- For each stock that we are recommending an ABC buffer for,
23 I think that the amount of buffer can be discussed during that
24 presentation to the council, so that -- I mean, we did that, I
25 think last time, on red snapper, in a way, where we came up with
26 larger buffers for ABC than some, and those types of things,
27 because of the uncertainty surrounding that.

28
29 As the stock gets below a certain level, we need to be making sure
30 that the buffer for ABC is increased, to take that into account,
31 and I think that can be discussed in association with when we
32 present that, as opposed to an individual motion here, and that's
33 my opinion. Luiz, please.

34
35 **DR. BARBIERI:** Well, thank you, Mr. Chairman, and, to that point,
36 Doug, I understand your intent here, and this is something that,
37 you know, we said, well, this needs to be discussed with the
38 council, and I don't know if we are ready for that yet. If we
39 make this motion now, Jim would go in, at the June council meeting,
40 and give a presentation to the council that discusses this, because
41 we just started revisiting this ABC Control Rule process today.

42
43 Now we're still in the very early stages, and I think that this
44 would require an actual presentation and formally prepare for the
45 council, that it walks them through all of this in more detail and
46 that explains to them, right, all the pros and cons of this,
47 because, otherwise, you know, they are going to be feeling --
48 Receiving this, and it's like we determine -- We are the policy

1 makers, and we've been assigned with managing the stock, and we,
2 you know, do not want to give up this responsibility, and that
3 risk assessment, or, I mean, the risk tolerance for how the stock
4 is to be managed really belongs with the council.

5
6 We can advise them on this, and give them some advice that we feel
7 like, listen, you are likely to have better outcomes, if you
8 actually go this way, but not sound prescriptive, and so developing
9 a presentation to have this discussion with them I think will take
10 some time putting together, I think.

11
12 **CHAIRMAN NANCE:** Thank you. Tom, please.

13
14 **DR. FRAZER:** I just want to follow-up a little bit on Luiz's
15 comments, right, and, I mean, I think the discussion I've heard
16 today -- I have really enjoyed it, and I think you need to make
17 some progress on revising the ABC Control Rule to recognize and
18 acknowledge that there's a great deal of scientific uncertainty,
19 and that needs to be communicated to the council.

20
21 I think that the council recognizes, right, that there is
22 management uncertainty, and there is environmental variations that
23 affect the status of the stock in any given year, and I think, as
24 Jim pointed out too, part of the reason that the council went to
25 the 50 percent MSST was to avoid this issue of getting into
26 constant rebuilding plans, right, and to put some stability into
27 the process, from a management perspective, but Shannon also made
28 a good point, right, in that, after that amendment moved forward,
29 there was a recognition that, you know, natural variability alone
30 normally wouldn't drive the MSST much below 75 percent, right, and
31 so you have to have pretty significant fishing pressure to get to
32 that 50 percent level.

33
34 I think, as you talk about the ABC, and the need for buffers,
35 that's part of a relevant discussion that should come up, right,
36 any time you're giving management advice, and so I'm not sure if
37 I -- I understand where Doug is coming from, and he has many, many
38 years of experience, and I just don't know if this particular
39 motion gets us anywhere, and I think it just should be part of the
40 fabric of the discussion that we have whenever we're talking about
41 ABC, and so just some thoughts.

42
43 **CHAIRMAN NANCE:** Thank you. Any discussion from SSC members?
44 Luiz, please.

45
46 **DR. BARBIERI:** Well, let me just -- Doug, after all this input,
47 how do you feel about this, because, I mean, the idea here is we're
48 not trying to talk against the intent of this motion that you made,

1 but we're just not sure if the timing is right for this to proceed
2 as-is right now, and how do you feel about that?

3
4 **MR. GREGORY:** I don't disagree. The North Pacific has been using
5 this approach since day-one, I believe, and I don't know what other
6 councils do, and it's just basic understanding of population
7 dynamics, and we haven't had to deal with it, and it has taken
8 time to get to this point, since the council changed MSST, but
9 whatever the group feels comfortable with. I don't mind
10 withdrawing it, and it will certainly be part of the presentation
11 to the council that we discussed it, and so that's a step in the
12 right direction.

13
14 This really -- Like I said this morning, this is not scientific
15 uncertainty, and this is -- It has to do more with stock
16 resiliency, and it's not the risk of -- **It's not management risk**
17 **either, and so, yes, I agree that it's a complex issue for**
18 **something that's a bit different than what the Magnuson Act has**
19 **indoctrinated us into believing all these years, and so, if you**
20 **don't mind, Luiz, I don't mind withdrawing the motion.**

21
22 **DR. BARBIERI:** Personally, Doug, that would be my preference, and,
23 I mean, I think we can revisit it at a later date, after we have
24 a little more discussion about the ABC Control Rule, if you don't
25 mind.

26
27 **MR. GREGORY:** That's good with me.

28
29 **CHAIRMAN NANCE:** Thank you. It did provide, in itself, provide a
30 good discussion, and so thank you for making that. Any other items
31 we want from an ABC Control Rule standpoint that we should discuss,
32 or would like to discuss? Ryan.

33
34 **MR. RINDONE:** Thanks, Mr. Chair, and so we have some time carved
35 out in the July agenda to talk about this more, and do you guys
36 want to maintain that time to talk a little bit more about some of
37 these other items that we kind of got discussions going on today,
38 with the understanding that we won't have another presentation
39 from the Science Center until September?

40
41 **CHAIRMAN NANCE:** I think what I would like is if we can have some
42 -- I don't know how to, but material brought that we can discuss,
43 and sometimes I have a hard time, you know, if we're just
44 subjectively looking at all these different things, to be able to
45 control that discussion, but, if there are specific things, like
46 tiers, if we could have some type of what do we want to discuss on
47 tiers, what do we want to discuss on different aspects, to bring
48 some material where we could actually have discussions on it and

1 points of reference where we can do that, and I think that would
2 be beneficial, but to just simply look at a graph and then kind of
3 say what do we want to do with these numbers, it's difficult to be
4 able to give direction to that discussion.

5
6 **MR. RINDONE:** Okay, and we could also try and bring something as
7 it relates to the current buffers between the OFL and the ABC and
8 then the catch variability that we talked about earlier as well.

9
10 **CHAIRMAN NANCE:** If there are specific things on tiers that we can
11 outline to have discussions on, and maybe Luiz and I and Ryan can
12 maybe talk about that, but so that there are specific things where
13 we can discuss.

14
15 **DR. BARBIERI:** Right, and we could, if we have time today, and we
16 have over an hour today, but that doesn't mean that we cannot start
17 lining up some points, right, with these tiers, and I think all of
18 us -- Sean made a statement that reflected the way that I was
19 feeling about this, that our Tier 1 is too broad now, right,
20 because this is going to be applied really to all the stocks that
21 are assessed using quantitative assessment models, right, and we
22 have a range there of stocks that we feel differently about --

23
24 **CHAIRMAN NANCE:** Is that where that spreadsheet --

25
26 **DR. BARBIERI:** I don't know, and maybe we could start by looking
27 at that spreadsheet, but what Sean said is that he feels
28 differently about the amount of uncertainty that could be reflected
29 in an assessment for vermilion snapper versus king mackerel versus
30 greater amberjack, and, I mean, subjectively, subliminally, I
31 understood what he meant, because I feel the same way about those
32 stocks, and it's just difficult to articulate what are the factors,
33 or the attributes, of those stocks that make us feel differently
34 about that.

35
36 **CHAIRMAN NANCE:** Doug.

37
38 **MR. GREGORY:** Thank you. I was wondering if we could revisit the
39 data-poor tier and send John off to go get some landings data for
40 us again, and we could reevaluate what we did with some of those
41 species, and I know wenchman have come up to the council recently,
42 and that's something to look at, and we set the ABCs for those
43 species twelve years ago or so, and it might be time to revisit
44 them, and we based the ABC and OFL on average landings of maybe a
45 ten year period, or maybe less, if that's something we could do in
46 July. Then I had a question for Ryan, and are we having a meeting
47 on July 7 and 8, because I read somewhere where it was listed as
48 tentative.

1
2 **MR. RINDONE:** It is not tentative. That's when it's going to be.

3
4 **MR. GREGORY:** Okay. Thank you.

5
6 **MR. RINDONE:** There really wasn't another option, which is why you
7 guys didn't get a doodle poll for that, and it's busy around that
8 time, and so those were the only viable dates, based on other
9 obligations for council staff and the Science Center and the
10 Southeast Regional Office, et cetera, and, with respect to
11 wenchman, you guys will get information presented on wenchman in
12 July that will allow you to consider different ways of setting
13 catch limits for that stock, and, insofar as it relates to the
14 other species for which ACLs were established based on ten-year
15 time periods, the council has directed staff to work on a document,
16 at some point in the future, and it's a lower priority at the
17 moment, that would look at those stocks again, and so that would
18 ultimately be brought back to you guys for an evaluation and
19 recommendations for revised catch limits, but that's not quite as
20 high on the pecking order at the moment.

21
22 **CHAIRMAN NANCE:** Okay, and so, for the July meeting, we've got a
23 little time carved out to continue this discussion, and so it
24 sounds like tiers is a topic that we're going to discuss, but we
25 need to know where the different tiers were outlined, what's the
26 difference between Tier 1, 2, 3, and 4, so that we can have that
27 document available, and I don't know what it is, I guess, is my
28 question.

29
30 **DR. BARBIERI:** Just to clarify, our current council-approved ABC
31 Control Rule includes tiers and dimensions, that table, but that
32 table really only covers Tier 1 of the council's ABC Control Rule,
33 right, and there is other tiers that deal with other levels of
34 data availability and analytical approaches that are used to set
35 -- Within the document, under the Generic ACL Amendment, I think
36 is where that document exists, and so there is a description of
37 the whole ABC Control Rule, and so we have, for quantitatively-
38 assessed stocks, we apply this table, the P* approach, and then
39 there's Tier 2, and then Tier 3a and 3b, that have to do with
40 different unassessed stocks that ABC is set based on the average
41 catch.

42
43 **MR. RINDONE:** This is Item 6(d), for those looking in the briefing
44 book.

45
46 **DR. BARBIERI:** In the briefing book it's there? Okay. Excellent.
47 So this, what I'm talking about, is within now our Tier 1, and we
48 want to separate them to apply different levels of sigma, right,

1 to different stocks, based on the amount of scientific uncertainty
2 that we believe is associated with their estimates of OFL.

3
4 **CHAIRMAN NANCE:** So one thing I would like is, for the July meeting,
5 we're going to go over this table, and so let's each of us
6 familiarize ourselves, and this is 2011, it looks like, when it
7 was developed, and so many of us were not on the SSC then, and
8 some were, and they were younger, but they were on it, but so that
9 we can have a discussion on the tier structure and what we want to
10 see changed, and so it's got the condition of use, the OFL and
11 ABC, those types of things, for each of these four tiers. Okay?
12 Anything else, at the July meeting, that we would like to discuss?
13 Dave, do you have anything on those things you outlined and any
14 way, from a discussion standpoint, that we can look at those?

15
16 **DR. CHAGARIS:** I mean, I think we've tried to a couple of times,
17 but we kind of keep going in different directions a little bit,
18 and so I don't really have a good recommendation for how to move
19 it forward. I think, if the MSE, if the management strategy
20 evaluation, were to get started, then these discussions would have
21 to take place before the analysis could go forward, as far as what
22 are the alternative shapes of the control rule, but I don't know
23 if going through that now is going to be worthwhile.

24
25 **CHAIRMAN NANCE:** Ryan, please.

26
27 **MR. RINDONE:** Thank you, Mr. Chair. With respect to the tiers,
28 and thinking about ways to redefine Tier 1, whether it's Tier 1a,
29 b, and c, or to just break out into new tiers entirely, or what
30 have you, I mean, there are other things that you guys could
31 consider, in terms of the types of data that are available,
32 perhaps, for a stock, and I will pick on cobia as one that does
33 not have any fishery-independent indices of relative abundance,
34 but it does have a completed and functional stock assessment that
35 we have used under the presumption of Tier 1 qualifications.

36
37 That might be an example of circumstance where you have a stock
38 that you acknowledge that you don't know very much about, and that
39 you don't have a lot of fishery-independent empirical information
40 to validate the fishery-dependent information upon which the
41 assessment heavily relies, and so maybe that would be a Tier 1b,
42 or, you know, a new Tier 2 or something like that, and so you guys
43 could consider some kind of metric like that as a way of further
44 differentiating that top tier.

45
46 **CHAIRMAN NANCE:** Shannon.

47
48 **DR. CALAY:** Thank you. What Ryan proposed is essentially the way

1 we set up the Caribbean control rule, by data availability and
2 quality, and so Tier 1 is for the cases where all of the data that
3 are needed for a stock assessment would be well quantified, and
4 then, as we go down and increase the sigma min, that's for
5 assessments where we had to make stronger assumptions,
6 essentially, or where important inputs were poorly known, and so
7 that's exactly -- I think that's a productive way of doing it,
8 what Ryan suggested.

9
10 **CHAIRMAN NANCE:** Do we have that, the tier structure, for the
11 Caribbean?

12
13 **DR. CALAY:** I do, but recall that Caribbean assessments are very
14 simple. They have removals and length composition, essentially,
15 and maybe an index, and that's it, and so you probably want to
16 think of a more comprehensive --

17
18 **CHAIRMAN NANCE:** Okay. Sure. I just wanted to --

19
20 **DR. CALAY:** I can send Ryan the Caribbean control rule.

21
22 **CHAIRMAN NANCE:** John.

23
24 **MR. MARESKA:** I just had to ask Shannon, and where did you get
25 those sigma min values from?

26
27 **DR. CALAY:** In the Caribbean, we made essentially the same series
28 of presentations, and they decided that, even in their most data-
29 rich condition, their assessments are data moderate, and so they
30 chose to use a sigma min of 0.5 for their Tier 1, but they have no
31 Tier 1 assessments at the moment, and so they are only using Tiers
32 2, 3, and 4, or they're really only using 3 and 4 at the moment,
33 and so they're using sigma min I think equal to one.

34
35 **CHAIRMAN NANCE:** Thank you. Harry.

36
37 **MR. BLANCHET:** Thank you. Right now, our tiers and dimensions
38 basically are working at how do we -- At least for our Tier 1,
39 we're estimating a P^* , and, to me, if we are basically using those
40 same types of evaluations, and so to check a box of how good is
41 the quality of the information and the assessment, then we are
42 capturing that same information when we assign a sigma to it, and
43 so is there any reason that we just can't put the P^* as 0.5 and
44 leave it there and just capture that uncertainty in a single
45 parameter, instead of using two?

46
47 **CHAIRMAN NANCE:** Shannon, please.

48

1 **DR. CALAY:** A P* of 0.5 is no buffer, no matter how wide the PDF
2 is, but we did tell the Caribbean Council that they could
3 essentially -- The council could determine the P* value to use, as
4 long as the SSC set some boundaries, and so the SSC said you could
5 consider P* values from 0.4 to 0.45, and I think that the Caribbean
6 Council did agree to select from that range, but I think they most
7 commonly use 0.4 and stick with it, which the Science Center is
8 comfortable with.

9
10 I do understand that that wasn't an approach when we made the Gulf
11 control rule, but, in reality, with the very narrow buffers that
12 we have frequently had in the Gulf, trying to focus on the tiers
13 and dimensions table and determine whether the P* is 0.4 or 0.43
14 or 0.45 hasn't really influenced the size of the buffers much at
15 all, and so I think we would be very happy -- We would be content
16 if the council selected a rational P*, perhaps something along the
17 lines of 0.4, and we concentrated on establishing the appropriate
18 sigma min. That appears satisfactory to the Science Center.

19
20 **MR. BLANCHET:** I am trying to understand why the sigma min, of
21 itself, does not capture that buffer.

22
23 **DR. CALAY:** The sigma min just determines the width of the PDF,
24 and so the 50th percentile of that PDF is always OFL.

25
26 **MR. BLANCHET:** It's still OFL. Okay.

27
28 **DR. CALAY:** Right.

29
30 **MR. BLANCHET:** Thank you. That explains it perfectly. That's
31 what I was missing.

32
33 **CHAIRMAN NANCE:** Luiz.

34
35 **DR. BARBIERI:** So thinking about it, those of us who were last
36 week at the SEDAR 74 data workshop, we got a demonstration of some
37 of those sometimes limitations in the data inputs that go into the
38 assessment, and so I'm thinking that we could think about criteria
39 of number of fixed parameters that are going into the assessment,
40 so that we choose those parameters based on expert judgement, and
41 we input them as fixed parameters into the model, and then the
42 number of imputed CVs, for example, for different data series.

43
44 You may remember, right, that, during some of the presentations of
45 the different working groups, CVs were presented and put there for
46 the different landings, for example, data series, and those numbers
47 were not -- Those CVs were not quantitatively derived, right, and
48 they were based on expert judgement, and I am not saying that they

1 are not scientific, and it still was scientists thinking about it,
2 but those were not really clearly representative of the amount of
3 uncertainty, right?
4

5 Another issue that we have had in the past with CVs is, especially
6 for the recreational landings, that we had to constrain the CVs
7 that were used, because models would not converge, if they had to
8 find a viable solution there, if you gave it too much space there,
9 in terms of the landings, the variability in landings, and so,
10 even though we knew that the PSE for that data series, from the
11 MRIP survey -- For example, there are assessments, and I know, in
12 the South Atlantic, I have seen several, where the CVs were
13 constrained to be just 5 percent, because, otherwise, there
14 wouldn't be model convergence.
15

16 I can understand that as a practical solution, but, of course,
17 that is underestimating the true uncertainty in that data series,
18 and so I'm thinking about those kinds of things that we could go
19 through.
20

21 **CHAIRMAN NANCE:** Okay. Any other discussion? Dr. Calay is here
22 today, and this is our opportunity. Personally, I'm glad you're
23 here, Shannon. It's been -- I think you've helped tremendously in
24 our discussions today. Any other items on the ABC Control Rule?
25 This is our opportunity to bring those up now or for our July
26 discussion. Okay.
27

28 **DR. BARBIERI:** I think this would be a question for Sub-Committee
29 Chairman Patterson, whatever his sub-committee is going to bring
30 back in July as a little summary presentation, if he could respond
31 to that.
32

33 **CHAIRMAN NANCE:** He's already gone home. Okay. Let's go ahead
34 then -- It looks like we may get out a teeny bit early today, but
35 we're now going to go into our public comment period, and so do we
36 have any individuals that would like to make public comment right
37 now? Mr. Drexler, it's nice to have you on. We'll go ahead and
38 turn the time over to you.
39

40 PUBLIC COMMENT

41
42 **MR. MICHAEL DREXLER:** Thank you, Chair. Sorry that I couldn't
43 make it today, but I really appreciate the SSC's work on all of
44 this. I view this as the single most important issue the SSC can
45 tackle, and, during the meeting, Doug didn't want to hand out
46 indictments, but I will.
47

48 It's easy to get lost in the technical details of sigma and

1 uncertainty. However, the fact of the matter is that we've been
2 managing our stocks with an unrealistic certainty of catch advice,
3 and management policies set to maximum risk, and the results I
4 think speak for themselves. We're in trouble.

5
6 Gag, cobia, triggerfish, amberjack, and probably some others, are
7 all blinking bright red. The outlook for fishermen is pretty grim,
8 unless you only target red snapper, and so the situation we're in
9 is going to impact a lot of people, and we can't keep what we're
10 doing, and so I think it's important to keep that context in sight
11 when we do this, and you can boil down the entire MSA and council
12 process into a single target, and it's to achieve OY, which is
13 defined in NS 1 as a long-term average amount of desired yield
14 from a stock, and I would argue that we're a long way from that
15 target, with the current state of our stocks, and so this is uber
16 important.

17
18 I won't belabor you on the point that I was going to make, regarding
19 the points of historical error, and it seems like the SSC agrees,
20 and I would just say that it's not all environment, and there are
21 data issues too, and that point was made, but, in some cases, I
22 think we're lying to our models a little bit about what we know,
23 for good reasons, but, back in September of 2019, I compiled
24 projections for all of the SEDARs and did an overlay over a five-
25 year window and presented that to -- It's in the September 2019
26 briefing book, which is basically a simply overlay of combined
27 historical uncertainty.

28
29 I found differences of around 25 to 50 percent were common, and as
30 high as 200 percent, which aligns closer to a sigma of 0.5, the
31 table that Shannon presented. You need to subtract that management
32 uncertainty component of that, but it's clear that we're missing
33 the mark with respect to uncertainty and buffers.

34
35 One aspect that wasn't discussed is the uncertainty with respect
36 to time over the projection window, which we know increases as the
37 assessment ages, and I think, and please correct me if I'm wrong,
38 but we currently treat each year in the projection as equally
39 certain, and I think everyone recognizes that isn't true.

40
41 I did some work with Mike Murphy on these historical retrospective
42 peels, and this pattern is clear, that uncertainty increases with
43 the projections, and so I would encourage the SSC to explore those
44 aspects as well, and, to that end, the Pacific Council applies a
45 ramp for penalty uncertainty as those projections age, and so
46 that's something to think about there, with some precedent, but
47 thanks again, and I'm looking forward to engaging on the issue.

1 **CHAIRMAN NANCE:** Thank you for those comments. Any comments from
2 the SSC? Thanks for being on the webinar today, Michael. Bob
3 Zales, please.

4
5 **MR. BOB ZALES, II:** Thank you, all, for doing this, and I have
6 just got a couple of suggestions. Number one, ever since I've
7 been involved in this stuff, every so many years, we change the
8 parameters for determining stock status and overfished and the
9 whole bit, and, I mean, we go from SPR, and now we're into something
10 else, and now you're looking at another way to do this, and my
11 suggestion would be, or one of them, is it's going to be tough for
12 Jim to talk to the council about this and get them to understand
13 what you're doing and why and so on and so forth.

14
15 Then, once you get past them, to the stakeholders like me, and
16 it's going to be even tougher to try to have them understand how
17 it is that you're going to be recommending more conservative
18 management on fisheries that they've been used to catching, and
19 now they're going to be able to harvest even less.

20
21 When it comes to ABCs and any discussions about buffers for ABCs,
22 and I didn't hear anything about the ACL or the ACT, and so I'm
23 assuming that this would be the buffer between ABC and OFL, and,
24 if that's the case, as everybody knows, once you all recommend an
25 ABC, the council can do anything below that recommendation, but
26 they can't do anything above it, and so it might be that, if you're
27 going to be recommending buffers there, that you might give a small
28 range of ABCs to the council, to give them the flexibility to
29 determine if they want to go with those buffers or if they're going
30 to play with buffers between the ABC and the ACL, and that might
31 make it easier for them to understand what you're doing and how
32 you're doing it, so you can address that buffer the next time that
33 the assessment comes up, and so that's pretty much it for me right
34 now.

35
36 **CHAIRMAN NANCE:** Thank you very much, Bob, for those comments.
37 Any comments from the SSC to Bob? Thank you. Any other public
38 comment? We certainly appreciate all those that were online today,
39 and I appreciate everyone here for the SSC, and I thought we had
40 great discussions, and I appreciate being able to have those today.
41 It's nice to be able to see people, and I think that certainly
42 helps, but we'll go ahead and adjourn the SSC meeting for today,
43 and we'll be back at 9:00 a.m. tomorrow morning, and I think the
44 first item on the agenda is shrimp.

45
46 It's Item Number VIII, Update on Royal Red Shrimp Landings and
47 Market Information, Gulf Shrimp Permits, and Economic Returns
48 Estimates for Permitted Vessels, and Dr. Mike Travis will be

1 presenting that, and so we'll see you tomorrow at 9:00. Thank
2 you.

3

4 (Whereupon, the meeting recessed on May 10, 2022.)

5

6

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7

8

May 11, 2022

9

10 WEDNESDAY MORNING SESSION

11

12

- - -

13

14 The Meeting of the Gulf of Mexico Fishery Management Council
15 Standing and Special Reef Fish, Special Socioeconomic & Special
16 Shrimp Scientific and Statistical Committees reconvened on
17 Wednesday morning, May 11, 2022, and was called to order by
18 Chairman Jim Nance.

19

20 **CHAIRMAN NANCE:** We're on Item Number VII, and we have Dr. Mike
21 Travis, who is going to give us a presentation, and I'm going to
22 have Ryan go through the scope of work first, and then we'll turn
23 it over to Dr. Travis.

24

25 **UPDATE ON ROYAL RED SHRIMP LANDINGS AND MARKET INFORMATION, GULF**
26 **SHRIMP**

27

28 **MR. RINDONE:** Thank you, Mr. Chair. This was requested by the SSC
29 for the updated economic information and everything else, and so
30 Dr. Travis is with us today remotely, and he's going to present
31 the updated royal red shrimp landings and market information, and
32 he's going to talk to you guys about the current Gulf of Mexico
33 shrimp permits and economic return estimates for permitted
34 vessels, and so you guys should ask questions of him, as you feel
35 appropriate, and this is largely information only, but, if there's
36 any recommendations that you guys want to pass along to the
37 council, please do so.

38

39 **CHAIRMAN NANCE:** Thank you. Dr. Travis, we're glad you're with
40 us, on voice, and we'll turn the time over to you.

41

42 **DR. MIKE TRAVIS:** Thanks, Jim and Ryan. I appreciate that, and I
43 just want to apologize to the SSC for not being there in person.
44 I had hoped to be there in person to do this presentation, but,
45 unfortunately, some health issues intervened and prevented me from
46 being there in person, and so hopefully this will all go smoothly,
47 even though I'm still in the middle of consuming caffeine, and so
48 hopefully I will be coherent.

1
2 As Ryan said, I'm basically going to be covering three topics, the
3 first one being information related to the royal red shrimp
4 fishery, the second one looking at the Gulf of Mexico shrimp
5 moratorium permits, in terms of valid permits versus active
6 permits, and then, also, looking at some recently compiled
7 information on the economic return estimates for permitted vessels
8 in the Gulf shrimp fishery.

9
10 The issue of the royal red shrimp fishery in the Gulf was raised
11 by the Shrimp AP about a year ago, and there have been concerns
12 expressed about what's been going on with that fishery, and, as
13 you can somewhat see from this slide, this fishery, in terms of
14 production, peaked around the mid-1990s to around 2000, and it's
15 been on a steady decline ever since, and so that has been an issue
16 of some concern to participants in the fishery, and they have
17 speculated on some of the reasons for that, which they asked me to
18 investigate, and I will get to that in a moment.

19
20 One thing to point out, with regard to this particular fishery, is
21 this is the one shrimp species in the Southeast that actually has
22 -- I'm sorry, and I should say in the Gulf, but that actually has
23 an ACL, and its ACL is set to 337,000 pounds, and it also has an
24 accountability measure, and that is because royal reds are not an
25 annual crop species, and so it does not fall under the annual crop
26 species exemptions for ACL and AM requirements under Magnuson, and
27 so it's a longer-lived species, which makes it a little different
28 than the penaeid species of whites, browns, and pinks, primarily.

29
30 One of the issues with this fishery that we've started to encounter
31 with increasing frequency, unfortunately, is, as production has
32 gone down, participation by vessels and dealers has also gone down,
33 and that has caused certain years of data to become confidential,
34 meaning we cannot provide the landings information to the council,
35 the SSC, and the public more generally, and it's not an ideal
36 situation, and so, nonetheless, what we did in this particular
37 slide was we tried to fill in the gaps for the confidential
38 information, to still give you, you know, some sense of what's
39 been happening with production in the fishery, and I still think
40 it's pretty clear, from this graph, that, from its peak in the
41 mid-1990s, it has been on a steady decline for basically the past
42 twenty-plus years now, and so a few points before I go on to the
43 next slide.

44
45 This particular fishery is prosecuted in very deep water, typically
46 at least a thousand feet in depth, usually in the northeastern
47 Gulf of Mexico. Because it's in very deep water, it's also
48 prosecuted pretty far out from land, and so that tends to make it

1 a more costly fishery to prosecute, because, obviously, you're
2 spending more money on fuel, and fuel is the number-one expense
3 when it comes to the shrimp fishery, and so definitely it's much
4 more expensive than, you know, fishing for penaeids.

5
6 The other part of is that the gear that they have to use, because
7 it's at such greater depths, is also different, and it's also more
8 expensive, again making it more costly to prosecute, and so it's
9 -- I guess you would say it's a riskier fishery to participate in.
10 Just, in general, it's -- Even when it was at its peak, typically,
11 royal reds only represent about 1 percent of total shrimp
12 production in the Gulf.

13
14 One kind of side issue that the AP had raised that I investigated
15 was there was some concern that our previous landings estimates
16 were not inclusive of all landings coming from the Gulf, and there
17 was some concern that some of the royal red shrimp landings from
18 the Gulf were being landed at Atlantic ports, constituting a
19 leakage from the fishery, so to speak, and I investigated that,
20 looking at the data from the Atlantic from 2015 to 2019, and what
21 we found is that, in total, from 2015 to 2017, there was less than
22 3,400 pounds of royal red shrimp that came from the Gulf, but were
23 landed at Atlantic ports, and there were none in 2018 and 2019,
24 and so the leakage from the Gulf, so to speak, is actually pretty
25 small, and I don't see that as a concern, with respect to the
26 landings we had reported historically.

27
28 Now, going back to the confidentiality issue, this is, again,
29 illustrated in this table on this slide, and it also shows that,
30 you know, participation has been pretty low in recent years, and,
31 even historically, we typically had maybe around twelve to fifteen
32 vessels, at most, participating in this fishery, but it has
33 definitely gone down, from six vessels in 2015 to three vessels in
34 2019.

35
36 Dealers, similarly, the number of dealers purchasing royal reds in
37 the Gulf also has gone down, and, getting specifically at one of
38 the main concerns of the fishermen, is what's been going on with
39 their prices, and so, in general, royal reds tend to get a much
40 higher price per pound than the penaeids do, which is good, since
41 it's a higher-cost fishery to prosecute.

42
43 Again, I can't give you some of the price information for certain
44 years, because it's confidential, but what you can see, in looking
45 at both the heads-on average price and the heads-off average price,
46 is -- These are inflation-adjusted numbers, but you're talking
47 about a heads-on price of \$4.09 a pound and a heads-off price of
48 \$7.37 a pound, back to 2015, and declining in 2017 a little bit,

1 but, by the time you get to 2020, now the price is down to \$3.50
2 heads-on and \$6.30 heads-off, and so that's a decline of about
3 14.4 percent over that time period.

4
5 Again, you know, knowing that this is a high-cost fishery to
6 prosecute, price declines are clearly going to reduce your profit
7 margin, and so this is the concern of the fishery, and they
8 basically pointed me in the right direction of what the cause was,
9 and we'll get to that next, but I do want to stop there, just for
10 a minute, and see if anybody has any questions to this point.

11
12 **CHAIRMAN NANCE:** Any questions for Mike up to this point? Jack.

13
14 **DR. ISAACS:** Mike, are those the same vessels that are
15 participating in this fishery from year to year?

16
17 **DR. TRAVIS:** Yes, and it's -- I mean, historically, there have
18 been a few boats that have kind of bounced in and out, depending
19 on how the economic conditions are, but it's typically, you know,
20 a core group of vessels, primarily in the northeastern Gulf, that
21 have prosecuted this fishery over the years. In fact, there are
22 a couple of family operations that have been predominant in the
23 fishery, but even some of them have dropped out at this point.

24
25 **CHAIRMAN NANCE:** Thank you. David.

26
27 **DR. GRIFFITH:** I was just wondering, and thank you, Mr. Chair, but
28 do they catch the annual catch limit every year?

29
30 **DR. TRAVIS:** No, and, if you go back one slide --

31
32 **CHAIRMAN NANCE:** Go back to the graph. There it is right there.

33
34 **DR. TRAVIS:** Your ACL is up there where the orange line is, at the
35 top, and so that's your 337,000 pounds, and so they were right at
36 ACL, and, Jim, I think that was 1995, but I'm not sure of that.

37
38 **CHAIRMAN NANCE:** It was around there, for sure.

39
40 **DR. TRAVIS:** Yes, and then they came close again, and it was either
41 2000 or 2001, but, since then, they are nowhere near that ACL.

42
43 **CHAIRMAN NANCE:** Rich.

44
45 **DR. WOODWARD:** Hi, Mike. A quick question. For reference, the
46 price of the other shrimp species, can you give me sort of rough
47 values for those prices on price per pound, and, also, have they
48 tracked similarly?

1
2 **DR. TRAVIS:** The first part, I can ballpark, and, typically --
3 Actually, can you move forward a slide again? I'm sorry. Yes,
4 and I would say, in general, penaeids, just ballpark, maybe around
5 two-thirds of the price of the royal red shrimp, and then, in terms
6 of the trend, that I would need to research, and I don't want to
7 talk off the top of my head specific to a particular period of
8 years, in terms of what they have been doing, and sorry that I did
9 not compile that information for this presentation, but I can look
10 at that, if folks would like me to.

11
12 **CHAIRMAN NANCE:** I know most of the penaeids have gone up during
13 that -- White shrimp, I think, in the late 1990s, were really --
14 There was a lot of catch of white shrimp and things, and so royal
15 reds is a lot different than what the penaeid is being prosecuted
16 at.

17
18 **DR. TRAVIS:** I will make one comment, Rich, just to provide some
19 context, and that is that the penaeids -- They saw major price
20 declines in the 2000s, and that is when imports of shrimp that
21 would directly compete with the penaeids really ramped up
22 considerably, and it did affect the prices considerably.

23
24 2009, if I recall correctly, was the worst year, and I think that
25 was the bottom point, and it got -- Jack may be able to speak to
26 this, but it got to the point where I know, in Louisiana, there
27 were industry folks actually at the capitol, in Baton Rouge,
28 protesting the low shrimp prices in that year, because it got so
29 bad, but I think, for penaeids, it's been a little bit different
30 since then. I think it's been more up and down and not a steady
31 decline, like we've seen with royal reds, and I'm going to get to
32 the reason why that is.

33
34 **CHAIRMAN NANCE:** Okay. Don.

35
36 **MR. BEHRINGER:** Looking at that prior slide, and the data, it
37 appears that, you know, most of the fishery sort of was abandoned
38 at its peak in landings, in sort of the early 2000s, and then that
39 sort of blip that appears later on, between about 2005 and 2010,
40 could -- I mean, it appears that it's largely driven sort of by
41 the economics of capturing these shrimp and not probably anything
42 to do with particularly with the shrimp, like disease or any reason
43 the shrimp might not be -- You know, have recruitment failure or
44 something like that, and is that your feeling? I mean, have you
45 had any information from the fishermen that left that fishery, in
46 the early 2000s, as to why they left?

47
48 **DR. TRAVIS:** I do not, and that would be a good project for someone

1 to work on, but I would tend to largely agree. I am not aware of
2 any biological information, and, you know, Jim and Benny should
3 feel free to jump in here, but I'm not aware of anything that
4 suggests that we have a biological problem here.

5
6 In the slides to come, I think it's going to be pretty clear that,
7 at least in the past several years, what we have is an economic
8 problem. It's just that what happened to the penaeid fishery in
9 the 2000s really didn't happen to the royal red shrimp fishery
10 until the 2010s, but it's just a repeat of what happened before,
11 for the penaeids, is what we're going to see.

12
13 **CHAIRMAN NANCE:** Cindy.

14
15 **DR. GRACE-MCCASKEY:** Thank you. I'm curious whether -- Do we have
16 any information about where their participation -- If it's
17 declining in this fishery, where has it moved to, or what other -
18 - Is it different shrimp species, or is it entirely other
19 fisheries?

20
21 **DR. TRAVIS:** These folks -- Even the folks who participate in this
22 fishery, it's not a year-round fishery, and it's not even close to
23 being a year-round fishery, and so, when they're not going after
24 royal reds, they're going after penaeids.

25
26 **CHAIRMAN NANCE:** A lot of times, you will see, since they're
27 penaeid fishermen also, if the penaeid crops are there, they will
28 continue to fish with those, and this is really a difficult fishery
29 to prosecute. You've got two drums of wire that you're laying
30 down to be able to fish this, and so it takes, you know, thirty
31 minutes for the trawl to come back up, those types of things, and
32 so, when the penaeids are not available, if they're out here for
33 royal red, they'll go out and prosecute that, and so it doesn't
34 seem to ever have been an issue of problems with the species, and
35 it's more of an economic issue of they're not going after them.

36
37 **DR. TRAVIS:** Right.

38
39 **CHAIRMAN NANCE:** Benny, please.

40
41 **DR. GALLAWAY:** Thank you, Mike. It's good to hear your voice.
42 It's been a long time.

43
44 **DR. TRAVIS:** It has, Benny.

45
46 **DR. GALLAWAY:** I think you've already answered my question, but I
47 assume that there is no catch rate trends, or information on catch
48 rates, that would cause any -- That would be any cause for concern

1 about the status of this fishery, and it's just a small fishery
2 that's prosecuted erratically over time, and is that correct?
3
4 **DR. TRAVIS:** That is a good question, and I do not have any CPUE
5 data directly in front of me, and so I would have to pass that
6 along to our new shrimp biologist and ask him to look at that,
7 because I did not look at that, and that information, like I said,
8 is not at my fingertips, but we can definitely look at that.
9
10 **DR. GALLAWAY:** Thank you, Mike. Jim, if somebody could compile
11 that catch rate information, as available, after the meeting and
12 send it out, it would be helpful. Thank you.
13
14 **CHAIRMAN NANCE:** Okay. Thank you, Benny. Mike.
15
16 **DR. ALLEN:** Thank you, Mr. Chairman. I just wondered -- The
17 decline in the landings from 1975 to 1985 is pretty pronounced,
18 and I just wondered if that was the fishers targeting different
19 species, or effort going down, or it's similar to Benny's question
20 of whether that indicated a reduction or different effort pattern.
21
22 **DR. TRAVIS:** That, I definitely cannot answer that, and I am not
23 that old, and I'm not sure -- Jim, you've been around longer than
24 I have, but I don't recall that we did any detailed analyses from
25 back during that time period, but, if you remember something that
26 I don't, again, please feel free to chime-in.
27
28 **CHAIRMAN NANCE:** Okay. Well, I started in 1983, and so toward the
29 lower end there, but, you know, back when we were doing -- The
30 main thing was not worrying about the low, but making sure they
31 never reached the high, and that was the way we were prosecuting
32 the fishery, and so I'm not sure we had the economic look at this
33 fishery back in that timeframe.
34
35 **DR. ALLEN:** Okay. Fair enough. Thank you.
36
37 **CHAIRMAN NANCE:** Don.
38
39 **MR. BEHRINGER:** Thank you, Mr. Chairman. I mean, I don't know the
40 history of the confidentiality laws, and could it be that, in that
41 time period, at least like maybe in 1985, when it goes to zero,
42 that if -- Like, if that had been nowadays, maybe there was only
43 one boat that caught anything, and it would have been blank, and
44 was there a sort of time period when that --
45
46 **CHAIRMAN NANCE:** I can't -- If I had the data in front of me, I
47 could look at it, but we have the --
48

1 **DR. TRAVIS:** Jim, prior to the --
2

3 **CHAIRMAN NANCE:** It looks like, in 1986, it was thirty-six pounds
4 caught, and so it was -- I don't have the number of vessels
5 involved, but it probably was one, those types of things, and so
6 I'm not sure it was -- I'm just talking off the top of my head
7 here, but I don't know if it's -- Maybe the -- I mean, those eras
8 there, in 1980 and 1985, brown shrimp was really going off the
9 wall, and so you had a lot of brown shrimp capture, and so they
10 may have moved to brown shrimp, were prosecuting it, and royal red
11 was not the niche species that it has become, and so the price may
12 have not been high, those types of things. Jason.
13

14 **MR. SAUCIER:** Thank you, Mr. Chairman. Just to ask a question on
15 the -- So, back then, we had port samplers, right, up until the
16 mid-2000s, or the early 2010s?
17

18 **CHAIRMAN NANCE:** We still have port samplers. Not as many, but,
19 back in this time, yes, we had port samplers at every major port.
20

21 **MR. SAUCIER:** So none of these fishermen were reporting landings
22 through a trip ticket system at that point in time, especially
23 back in the 1980s, where we're talking here, and so what was the
24 coverage back then? I wonder if that's why we see the erratic
25 nature of the landings, is we didn't have very good coverage at
26 some of these ports.
27

28 **CHAIRMAN NANCE:** No, and I don't think -- I think we had -- During
29 this time, in the 1980s, we had very good coverage with the port
30 agents. They were at every major port in the Gulf, and they had,
31 within their area -- Like, for example, the Galveston port agent
32 also did up in Houston, Kemah, down to Freeport and those types of
33 things, and so they covered everything.
34

35 This has mainly been Alabama, is where most of this landing occurs,
36 and there have been, over time, south Texas, and there was a royal
37 red production in south Texas for quite a while, and they were
38 landed in Brownsville, and there was a couple of boats down there
39 that used to go out and do this, but that dropped off pretty quick,
40 and it's mainly been Alabama and that area where the royal reds
41 are prosecuted. Any other questions at this time?
42

43 **DR. TRAVIS:** Jim, one quick thing is the FMP wasn't even in place
44 until 1981, if memory serves, and then it took a few more years to
45 get the data collection requirements in place, and so I'm not sure
46 we even know how many vessels were in the fishery prior to the
47 data collection requirements going into place.
48

1 **CHAIRMAN NANCE:** I remember back that, sometimes, we had thirty or
2 forty vessels, and then down to six, but it was averaging six
3 during most of this period.

4
5 **DR. TRAVIS:** Right.

6
7 **CHAIRMAN NANCE:** Okay. It looks like no more questions, Mike, and
8 we can go ahead and continue on.

9
10 **DR. TRAVIS:** All right, and so let's go two slides forward, please.
11 Okay, and so here is where the industry was pointing me, not
12 surprisingly, which is imports, and not just imports in general,
13 but imports specifically from Argentina, and the reason being is
14 that Argentina does have a wild-harvest red shrimp fishery, and so
15 the thinking is that the red shrimp from Argentina have been
16 competing directly with the royal red shrimp fishery in the Gulf.

17
18 If you look at the recent years of data, imports from Argentina in
19 general, and this is shrimp imports, from 2015 to 2020, tripled,
20 or almost tripled. Now, they did fall back a little in 2021, but
21 still that's the kind of increase that we saw back in the 2000s,
22 with the shrimp imports that appeared to more directly compete
23 with the penaeid species.

24
25 Now, in the import data, we can distinguish between what's referred
26 to as warm-water shrimp imports and cold-water shrimp imports, and
27 I just want to say, right now, that that terminology is not related
28 to the temperature of the water in which those shrimp are
29 harvested, and so don't get hung up on that terminology, and I
30 will get to that a little bit more, but that seems to have been an
31 ongoing source of confusion, and so Argentina reds, and apologies
32 to the biologists if I butchered the names, but Argentina reds,
33 *Pleoticus muelleri*, we believe those directly compete with the
34 domestic royal reds, which is *Pleoticus robustus*.

35
36 We also thought it would be the warm-water shrimp that would be
37 directly competing with the imports from Argentina, and, now,
38 during the AP meeting, we had a rather lively discussion about
39 this, because, as you can see from the previous slide, I was
40 focusing on warm-water shrimp, thinking, number one, that they
41 would be the shrimp competing with our royal reds.

42
43 They are truly the vast majority of the imports, and, actually, if
44 you could just go back to the previous slide for a minute, I do
45 want to emphasize that, and so you can see that the vast majority
46 of the imports are warm-water shrimp, and, you know, it's well
47 over 90 percent are warm-water shrimp.

1 I think part of the confusion can be tracked back to a report that
2 was issued by the Monterrey Bay Aquarium Seafood Watch Program in
3 2018 on the Argentine red shrimp fishery, and, based on my
4 additional research since the AP meeting, I believe that report
5 makes some incorrect statements and some invalid assumptions.

6
7 Number one, they claim that our import data identifies Argentine
8 red shrimp in the data, and it does not. It never has. Shrimp
9 species have never been specifically identified in our import data,
10 as they claim, and so that was an immediate red flag that, not
11 only were they making incorrect statements, but they were making
12 assumptions that were probably not accurate.

13
14 They also apparently assumed that Argentinian reds are classified
15 in the import data as cold-water shrimp, because they said that
16 Argentinian reds were only 1.89 percent of shrimp imports from
17 Argentina in 2017, and, well, if they're only 1.89 percent, they
18 have to be assuming that they're cold-water shrimp, rather than
19 warm-water shrimp.

20
21 Now, this part I'm guessing, but my thinking is that they assumed
22 that based solely on the geographic location of the freezer trawl
23 fishery down there, which is in the Gulf of San Jorge, and it's
24 like 43 to 47 degrees south latitude, and so they're thinking how
25 that's pretty far south, and it's probably cold water, and so we're
26 going to assume these are cold-water shrimp imports.

27
28 I spoke to the Office of Science and Technology, and they looked
29 at Customs harmonized tariff schedule documentation, and the only
30 species that are considered cold-water shrimp in the import data
31 are *Pandalus* species and *Crangon Crangon*, and, to be honest, I
32 don't even know what *Crangon Crangon* is, but that leads one to the
33 conclusion that Argentinian red shrimp are warm-water shrimp in
34 the import data.

35
36 However, as we're going to see on the next slide, not all warm-
37 water shrimp coming from Argentina are likely red shrimp, and here
38 is the reason why, and so, prior to July of 2021, we have not been
39 able to determine whether shrimp imports were wild-harvest shrimp
40 or farmed shrimp, and this is an issue that we have been bringing
41 up for years, and finally we got new HTS codes, starting in July
42 of 2021, that allows us to distinguish farmed imported shrimp from
43 wild-harvest imported shrimp, and so this is kind of a good
44 breakthrough.

45
46 However, what surprised myself, and I think the industry was also
47 surprised, based on discussions at the AP meeting, is that, at
48 least based on the last six months of data from 2021, was a much

1 higher percentage of the imports coming from Argentina are farmed
2 than we expected.

3
4 Farmed product is not going to be red shrimp. They don't farm red
5 shrimp, and so, presumably, it would not directly compete with the
6 royal reds, and it would be the wild harvest that would be red
7 shrimp and would directly compete with our royal reds, and so,
8 just looking at that table -- Granted, there's a fair amount of
9 variability in not just the wild-harvest poundage, but also the
10 farm-caught poundage, from month to month, but the bottom line is
11 that over 23 percent of the imports coming from Argentina are
12 farmed product, and no one that I have spoken to thought it would
13 be anywhere close to that.

14
15 That little surprise caused me, and others, to kind of rethink the
16 imports coming from Argentina, because, you know, we had thought
17 that all of the warm-water shrimp imports were red shrimp, and
18 that is clearly not the case, and so, you know, we thought about
19 the possibility of maybe trying to back-estimate imports of wild-
20 harvested reds, historically, but that's probably not a good idea,
21 because, if aquaculture in Argentina of shrimp has been expanding,
22 then it doesn't make any sense to do that, because, even though
23 they may be 23-plus percent now of the imports, they likely weren't
24 that much historically.

25
26 We don't have enough information, and we're just going to need to
27 monitor this, you know, as more data comes in through 2022, to see
28 if the aquaculture industry for shrimp down there -- Is that a
29 growing industry, and I largely expect that it probably is, because
30 that's the trend on a worldwide basis, and so, anyway, nonetheless,
31 I think it's pretty clear that it is likely the case that the
32 imports of Argentinian reds have increased significantly over the
33 past several years, and that probably is a primary reason, if not
34 the primary reason, for the decline in the royal red prices that
35 we've seen in the last several years. I am going to stop there,
36 again, to see if there are any questions.

37
38 **CHAIRMAN NANCE:** Rich.

39
40 **DR. WOODWARD:** Let me just make sure I've got my numbers right,
41 and so, looking at the wild pounds on this graph, you've got --
42 Let's round up to fifteen million, and then, if you go back to the
43 harvest in the Gulf, several slides back, that's at 150,000, and
44 is that right? So we're talking a scale of a hundred that's
45 different between those two, and, I mean, is that what I'm reading
46 here?

47
48 **DR. TRAVIS:** Yes, that is what you're reading.

1
2 **DR. WOODWARD:** Okay, and so we're talking about the U.S. landings,
3 the Gulf landings, are just a little bit of noise on the end of
4 the aggregate supply.
5
6 **DR. TRAVIS:** Yes, and, of course, the point being is that they
7 didn't used to be, a decade-plus ago, but clearly now they are a
8 drop in the ocean.
9
10 **DR. WOODWARD:** Thank you.
11
12 **CHAIRMAN NANCE:** Any other questions? Jack, please.
13
14 **DR. ISAACS:** Mike, of course, I seem to recall that we only have
15 the farmed and wild distinction in the import data perhaps for the
16 last year or two, and it will be really interesting to see how a
17 time trend unfolds as time goes by.
18
19 **DR. TRAVIS:** Yes, and I completely agree. We only, right now,
20 have the last six months of 2021, and, you know, anyone who has
21 done any kind of economic analysis on the shrimp fisheries -- You
22 know, we all wish that we had this information twenty years ago,
23 but that just wasn't what happened, unfortunately.
24
25 **DR. ISAACS:** Mike, my colleague, Dr. Miriam, just last week, was
26 looking at some data for farmed versus wild shrimp imports, and so
27 it will be interesting to see if her findings, for shrimp in
28 general, line up with what you have here for the red shrimp.
29
30 **DR. TRAVIS:** Indeed.
31
32 **DR. ISAACS:** But I won't bore these people with that.
33
34 **DR. TRAVIS:** Okay.
35
36 **CHAIRMAN NANCE:** Thank you. Harry.
37
38 **MR. BLANCHET:** Thank you. I just did a quick search, and it seems
39 that there is a fishery improvement plan for Argentine red shrimp
40 offshore, and they describe their landings, in the plan, as -- Let
41 me go back to it. The total landings of 80,000 metric tons, and
42 estimated total fishery landings of 180,000 metric tons, as of
43 December 2021. That's a lot of shrimp.
44
45 **DR. TRAVIS:** Yes, and, of course, not all of it is coming to the
46 U.S. They export elsewhere, but my recollection is that we are
47 the number-one destination for the Argentinian red.
48

1 **MR. BLANCHET:** Yes, and, I mean, that kind of -- Yes, it's a
2 worldwide market, but those kinds of volumes is definitely going
3 to influence your price.

4
5 **DR. TRAVIS:** Sure.

6
7 **CHAIRMAN NANCE:** Thank you. Don.

8
9 **MR. BEHRINGER:** Thank you, Mr. Chairman. Mike, is there any
10 information on what the target market is once the shrimp get here?
11 Is it mostly grocery stores, or are the royal reds -- Is that some
12 kind of a niche market that goes to restaurants? Is there any
13 information on that and whether that might have changed too over
14 time? I don't know what the typical consumer -- Whether they chose
15 a royal red over a penaeid or not, preferentially.

16
17 **DR. TRAVIS:** That is an excellent question, and that was discussed
18 a little bit during the AP meeting. My sense, from them, is that
19 it is definitely a niche market. I mean, it historically was a
20 niche market, when, you know, it was primarily a domestic market.
21 Heck, I remember going to a couple of restaurants in Alabama
22 specifically to get this product, because, you know, it's very
23 hard to find, or at least it was very hard to find, and it's a
24 very specialized product.

25
26 Anyone who has ever had it -- It's more the size of a prawn than
27 a penaeid shrimp, and it has a very different flavor to it. I
28 still think it's a specialized product that goes almost entirely
29 into restaurants, and it continues to be that way. There are a
30 few industry folks that specifically said that they handle some of
31 this product, and so I guess they're importers, and that they were
32 sending the product to specific restaurants.

33
34 **CHAIRMAN NANCE:** Thank you. Matt.

35
36 **DR. MATT FREEMAN:** Just to add onto that, Mike is right, and I had
37 asked that same question during the AP meeting, when they saw this
38 presentation, and several of the Shrimp AP members confirmed that,
39 that they were seeing it go to restaurants specifically.

40
41 **CHAIRMAN NANCE:** Thank you. Jason, please.

42
43 **MR. SAUCIER:** Thank you. Mike, can we track the price for the
44 imported like we do -- Is there a way to get to that information,
45 where we see a 14.4 percent decline in the price, the ex-vessel
46 revenue, for our domestic shrimp, but I would be interested to see
47 what it looks like with the wild pounds coming in, as of July of
48 2021, to see if there was any correlation.

1
2 **DR. TRAVIS:** We can, but, unfortunately, I did not, and so I will
3 add that to my to-do list, to look at the import price for farmed
4 versus wild-harvest.
5
6 **MR. SAUCIER:** I think it would just be interesting to see if that's
7 having an impact on our price point here, because it's potentially
8 direct competition.
9
10 **DR. TRAVIS:** Yes, and I wouldn't necessarily anticipate that the
11 prices for farmed versus wild-harvest, specifically coming from
12 Argentina, would necessarily mirror each other, and they could
13 have different trends, because they're basically servicing
14 different markets, and there is different buyers for that product,
15 as we were just discussing, and so, yes, I will plan on looking at
16 that.
17
18 **CHAIRMAN NANCE:** Thank you. Jack.
19
20 **DR. ISAACS:** Mike, it might be interesting also to look at the
21 ports that the Argentinian product is coming into.
22
23 **DR. TRAVIS:** You mean the U.S. ports?
24
25 **DR. ISAACS:** That's right.
26
27 **DR. TRAVIS:** So, that, I am pretty sure, just off the top of my
28 head, that the vast majority of that product comes into Miami. I
29 mean, Miami is, far and away, our largest seafood imports port in
30 the Southeast, and, in fact, it's one of the largest in the
31 country, but I will verify that.
32
33 **CHAIRMAN NANCE:** Okay. Thank you, Mike. Let's go ahead and
34 continue.
35
36 **DR. TRAVIS:** Okay, and so that wraps up our discussion of the royal
37 red shrimp fishery and associated market issues, and so, here,
38 we're getting into a topic that will come up in a framework action
39 that we're currently working on for the council, and we discussed
40 this with the AP, and we want to discuss it again with the SSC,
41 and this one is a rather specific data issue.
42
43 What we have done, historically, at the council's request, is
44 looked at the number of valid shrimp moratorium permits in a year,
45 and also then looked at the number of active permits. Now, in
46 this case, active means that they had at least one pound of Gulf
47 shrimp landings, and it could only be one pound, although that
48 would be rather unusual.

1
2 We have looked at this, historically, in previous documents, and
3 I have updated that information here, to specifically look at 2015
4 to 2019, and the numbers in the first column, the number of valid
5 permits, is based on our current official counts, which I will get
6 to the meaning of that on the next slide, and then active permits
7 is in the other column.

8
9 Now, in this case, the number of active permits is based only on
10 data coming from what I will call our historic Gulf shrimp landings
11 dataset, which means dealer reports, and dealer reports, in recent
12 years, basically means state trip tickets.

13
14 If you go back through time, it would also refer to dealer reports
15 that our port agents collected, and so, in this particular case,
16 I did not make use of the landings data that we collect directly
17 from the permit holders, and that data is not considered here, and
18 I wanted to point that out, because the analysis that I did,
19 actually quite some years ago now, that, when you only use the
20 landings from the dealer reports, that could lead to an
21 underestimate of the, quote, unquote, actual count of active
22 permits in the fishery, and, when I last looked at this, many years
23 ago, there was about a 4 percent differential between the number
24 of active permits based just on the dealer reports, as opposed to
25 the number of active permits based on dealer reports and the data
26 directly provided by the permit holders.

27
28 Again, the 2015 to 2019 estimates are based on the Regional
29 Office's current official approach for counting valid permits in
30 a year, and, under that approach, a permit is counted as valid in
31 that year as long as it was valid for at least one day. Even if
32 it was terminated later in that same year, we consider it to be a
33 valid permit in that year, because they could have legally fished
34 under that permit when it was valid.

35
36 Now, in previous years, as you see in, for example, Amendments 17A
37 and 17B, when we looked at these counts, a different method was
38 used to look at the number of valid and active permits since the
39 moratorium was implemented back in late 2006.

40
41 At that time, the -- What was happening is that we have a number
42 of surveys. We have an economic survey, and we have the annual
43 landings form survey, and a vessel and gear characterization
44 survey, and so the Center would request, from the Permits Office,
45 the moratorium permit data, fairly early in the following year, so
46 that they knew who to send the surveys out to, and I want to say,
47 generally, sometime in February, because they wanted to make sure
48 that all the data had been compiled.

1
2 However, what they did is, when they determined that a permit had
3 terminated at some point, prior to them sending out the survey,
4 they kicked those permits out from consideration, and that probably
5 led to an underestimate of the actual number of valid, and probably
6 the actual number of active, permits, relative to the approach
7 that we use now, and so I just wanted to make that point, because
8 there is basically a break, and there's a change in the method
9 from, you know, 2014 to 2015.

10
11 I will leave it to the SSC, if they want to comment on particularly
12 what data we should be using to determine the number of active
13 permits in the fishery, and so, specifically, is it acceptable to
14 just use the dealer reports, or should we be using the dealer
15 reports in combination with the data coming directly from the
16 fishermen themselves?

17
18 Part of the reason that I bring this up is because we have seen a
19 history of some vessel owners reporting to us that they did in
20 fact have landings in a particular year, even though the dealer
21 reports say otherwise, that they did not, and so I'm going to --
22 Again, I'm going to stop there for a minute, just to take questions
23 and comments, and, if the SSC wishes to comment, that's fine. If
24 not, that's fine, too.

25
26 **CHAIRMAN NANCE:** Okay. Trevor.

27
28 **MR. MONCRIEF:** I have just a couple, and so the first one was
29 what's the process of a valid permit becoming invalid or
30 terminated? Are they timing out, or are the permit holders not
31 renewing? What's kind of going on there?

32
33 **DR. TRAVIS:** So, basically, a permit, a moratorium permit, can
34 have three statuses. It can be valid, it can be expired, or it
35 can be terminated, and so, once a permit -- A permit ends as of a
36 particular date, and then, as of that date, you're supposed to
37 renew your permit, right, and then, if you don't renew your permit,
38 as of that particular ending date, it becomes expired, and all
39 that means is that you can't legally fish under the permit anymore.
40 It's not terminated yet, because we give the permit holders a year
41 of leniency to actually renew their permit, but, if you go beyond
42 a year after the permit expires, then it becomes terminated.

43
44 Sometimes, you know, this is just people who hold permits who have
45 gotten out of the fishery, and they're using their boats for other
46 purposes, or they have sold their boats, but they never transferred
47 their permits, because these permits are transferable, but they
48 never transferred them, and so they just go away. Does that answer

1 your question?

2

3 **MR. MONCRIEF:** Yes, it kind of does, because what I was kind of
4 catching onto was, while the valid and active permits seem to be
5 correlating with one another, the drivers behind the two are widely
6 different, and so it's not necessarily like a permit becoming
7 invalid or terminated or latent, and that's not what is driving
8 the active permit drops. The other one I have was is there not
9 logbook data for these vessels, as far as VMS and everything else?

10

11 **DR. TRAVIS:** Okay. There is that word of "logbook".

12

13 **MR. MONCRIEF:** I know it's a topic right now, but --

14

15 **DR. TRAVIS:** Yes. There is no logbook, in the typical sense of
16 that term, like the logbooks we have for our finfish fishery, and
17 we've never had that kind of a logbook in this fishery. You do
18 have the so-called cellular electronic logbooks, but remember
19 those are only on a sample of the permitted vessels, and, even at
20 its height, it was maybe 50 percent of the fleet, and we are
21 definitely not at 50 percent of the fleet now, and so that would
22 probably not be a good source for determining whether a permitted
23 vessel was active or not, but I do want to -- If you go back to
24 the previous slide, because of something that you just said, I
25 wanted to point out --

26

27 The numbers of valid permits has been -- It's gone down some over
28 the last five years, but it's not a huge decrease. In the active
29 permits, it's actually been even more stable, until that drop in
30 2019, and I don't know if that's a temporary drop, are we just --
31 You know, I don't have the -- The 2020 and 2021 data has not been
32 compiled yet, and so I don't know if that's a temporary decline or
33 not.

34

35 **MR. MONCRIEF:** All right, and so just one more follow-up, and I
36 will be done, Mr. Chair.

37

38 **CHAIRMAN NANCE:** Thank you, Trevor.

39

40 **MR. MONCRIEF:** If you have -- Even if it's partial coverage
41 overall, did you ever look to see if there was a vessel out, or if
42 you had active vessels that were, you know, engaging in the process
43 that had no landings recorded at all?

44

45 **DR. TRAVIS:** In other words, you're saying, if the cELB data says
46 a boat was out there, but we look at the landings data, either
47 from the dealer reports or from the vessel owner reports?

48

1 **MR. MONCRIEF:** Correct.
2

3 **DR. TRAVIS:** No, we have not done that. That is interesting, and
4 I would be very surprised if we had someone showing -- You know,
5 a vessel showing up in the ELB data that didn't show up in either
6 of the two sources of landings data, and that would be very
7 strange. I'm not saying that it's not possible, but I would not
8 anticipate that. Jim, if you have any comment on that, please
9 feel free.
10

11 **CHAIRMAN NANCE:** No, but are there any other questions? I'm not
12 sure if you looked at it, Mike, but do you have a sense for the
13 percent of landings that don't have a recorded vessel number or
14 those types of things?
15

16 **DR. TRAVIS:** Thank you, Jim, and so that, historically, has been
17 an issue, where the vessel ID being recorded specifically in the
18 state trip ticket data is an invalid ID, and we can't match it,
19 and we can't validate it, and there are other times when there
20 just isn't a vessel identifier, and it's missing.
21

22 That was, historically, a larger problem, and I want to say, in
23 general, it's become less of an issue, and so, again, the number
24 of active permits, regardless of which landings dataset you use,
25 or combination you use, it's still an estimate, and partly for
26 that reason that Jim just brought up, because, you know, we don't
27 have complete data, when it comes to the vessel identifiers in the
28 trip ticket data.
29

30 Jim, I want to say we were probably at about 5 percent, a decade
31 or so ago, of the landings -- Where we couldn't match them up to
32 a particular vessel. The last time I looked at it, I think it was
33 down to like 1 to 2 percent of the total landings, and so I think
34 it has improved, which is a good thing.
35

36 **CHAIRMAN NANCE:** That is. Absolutely. If there are no other
37 questions, let's go ahead and move on, Mike.
38

39 **DR. TRAVIS:** Okay. All right. The last topic, and, in a minute
40 here, I'm going to ask council staff to bring up a PDF document
41 that is in the background materials, and so this is information
42 that -- I did not compile this, and this is provided by Christopher
43 Liese, who is one of our economists in the Science Center, and he
44 recently provided some updated economic performance estimates for
45 the Gulf shrimp fishery, and we were specifically looking at 2014
46 to 2019, and I want to specifically highlight the averages from
47 2015 to 2019, and, again, just to reiterate, we don't have the
48 estimates yet for 2020 and 2021.

1
2 They're just not available yet, but our view, when you look at
3 those years, is that the 2015 to 2019 average is indicative of
4 current baseline economic conditions, and we don't think that 2014
5 is, because, as we'll see here in a minute, it's pretty clear to
6 us that economic performance in the fishery declined after 2014.
7 In short, 2014 was the last really good year, economically, for
8 this fishery, and so, if council staff could bring up that PDF
9 document, I would greatly appreciate that.

10
11 Thank you very much, and so, obviously, we're not going to go
12 through all these numbers, but I just kind of wanted to highlight,
13 and they are in fact highlighted, some of the key findings and
14 why, essentially, we don't want to use 2014 as being indicative of
15 the current -- Or at least our best estimate of the current
16 economic baseline conditions, and so, if you would scroll down,
17 please, and so here you go.

18
19 This indicates one of the biggest changes, and so, if you go back
20 to 2014, the average price per pound, and this is across all shrimp
21 landings in the Gulf, but you're talking about \$5.32 a pound, and
22 then look at what happens starting in 2015 and thereafter.

23
24 It's pretty stable after that time, but, you know, you're talking
25 pretty much night and day, in terms of shrimp prices from 2014,
26 when they last peaked, compared to the years thereafter, and it's
27 a similar -- Interestingly, it's a similar trend for fuel prices,
28 and so fuel prices were pretty high in 2014, historically speaking,
29 and then they also dropped thereafter, but, you know, one of the
30 things that the industry told me, many, many years ago, is one of
31 the key indicators of how profitable, or whether they are
32 profitable at all, is in fact the difference between the shrimp
33 price and the fuel price, and so you're talking about a difference
34 of \$2.10, and, granted, these are different units, and I understand
35 that, between the shrimp price and the fuel price, but, now, over
36 the most recent five years, it's down to \$1.41.

37
38 That's generally an indicator of, you know, the fishery has
39 declined in profitability post-2014, and so economic conditions
40 have changed considerably.

41
42 Here is another indicator, and so net cash flow, and hopefully
43 folks have a basic understanding of what net cash flow means, but,
44 again, you're talking about they were at just over \$60,000, and
45 this is, you know, average per vessel, and there's going to be
46 vessels that are way above this and vessels that are way below it,
47 but the number -- The net cash flow definitely decreased, not so
48 much in 2015 and 2016, but definitely thereafter. Again, there's

1 a fair difference between 2014 and the subsequent years.

2
3 Revenue from operations, and so this is basically gross revenue.
4 Well, it's not gross, because this is just -- I'm sorry, and it
5 should be revenue from fishing, fishing operations, but, again,
6 you know, 2014 is a good year, and the average was up over \$400,000,
7 but, in the years after that, the average was down to just over
8 \$315,000, and so that's a pretty -- Again, that's a pretty big
9 decline, and then, when you look at net revenue from operations,
10 again, around forty-grand in 2014, and, since then, just over
11 \$12,000, and, in one of those years, on average, they were in the
12 red, and so there were a lot of boats, in that year, that were not
13 making money, and they were losing money.

14
15 Again, I didn't go through all of these estimates, but I just
16 wanted to highlight some of these key indicators, that economic
17 performance in 2014 was really good, the best year that they've
18 had in quite some time, but it has declined in the years since
19 then, and we don't think 2014 is indicative of where the fishery
20 is probably operating, at present, and I will stop again there,
21 because that's the last part of my presentation, and just see if
22 there is -- If anyone has any comments or questions.

23
24 **CHAIRMAN NANCE:** Okay. Thank you. Jack.

25
26 **DR. ISAACS:** You're right there, once again, Dr. Mike. 2013 and
27 2014 were unusual years, and there was like a decrease in imports,
28 kind of coinciding with white spot disease, I believe, over in
29 southern Asia. Imports go down, and prices went up, but that
30 didn't last very long.

31
32 Beginning in 2013 or 2014, we started seeing an increase in shrimp
33 imports again, notably from India, from all places, but that's a
34 discussion for another day, I think, and imports keep going up,
35 and price keeps going in the opposite direction, for the most part.

36
37 **DR. TRAVIS:** Yes, I would concur with that, and it was primarily
38 in Thailand. Thailand, back at that time, represented about a
39 third of all the imports coming into the U.S., and so they were
40 number-one, by far, but, when they were hit by that -- What's that
41 called? The early mortality syndrome, and it really hurt their
42 farm production, and that did give our industry a reprieve, for a
43 short period of time, but, you know, this is what we see, is you
44 can have this happen in one country, or even two, but that so-
45 called vacuum in the market -- It doesn't take long for other
46 countries to compensate and ramp-up their production to cover for
47 the loss of production in another country, and, in fact, Thailand
48 is no longer -- I don't even think they're number-three, in terms

1 of imports to the U.S., because other countries, such as India,
2 have just overtaken them, and it doesn't take a long time for the
3 adjustment to occur.

4
5 **CHAIRMAN NANCE:** Thank you. I think it used to be, Mike, 80
6 percent import and 20 percent domestic, and is it still around
7 that?

8
9 **DR. TRAVIS:** I don't think so, because domestic production,
10 overall, thinking nationally, the whole U.S., is pretty flat, and
11 imports have continued to go up, and, in fact, they just blew
12 through the roof this past year, at a clip that I didn't even see
13 back in the 2000s.

14
15 In fact, the increases were so extreme that I contacted
16 Headquarters, and they contacted Customs, to make sure that the
17 numbers were correct, and they confirmed that they were, and so
18 it's -- You know, interestingly, at least through the data that I
19 had looked at mid-year last year, the domestic shrimp prices had
20 really maintained themselves much better than I would have
21 expected, and just, you know, my working hypothesis is that was a
22 function of a very strong growing economy that was just fueling
23 demand, and inventories were short at the time, and so I'm not
24 sure that's still the case, and it will be interesting to see what
25 happens to prices this season.

26
27 **CHAIRMAN NANCE:** Okay. Jack, to that point?

28
29 **DR. ISAACS:** Yes, and I tend to think that imports are over 90
30 percent of domestic supply now, and there were some problems with
31 how they defined domestic supply, and some of their conversion
32 factors there need some updating, but, once again, that's a story
33 for another day.

34
35 **DR. TRAVIS:** I agree, and I would say it's at least 90 percent
36 now.

37
38 **CHAIRMAN NANCE:** Okay. Thank you. Trevor.

39
40 **MR. MONCRIEF:** I apologize if I'm somewhat ignorant on this topic,
41 but, when I was reading through your presentation, and listening
42 to you, I wasn't getting a clear understanding, and so I think --
43 I agree with what you're saying, that, you know, 2014 is not
44 comparable to 2015 and 2019, but I'm unsure on the application
45 here. Are you trying to establish a baseline to also look into
46 2020 or 2021, since they're not available, or is this just
47 essentially making a statement that 2015 to 2019 is baseline,
48 because I think we hit a big old fat reset button in 2020, with

1 everything that happened.

2

3 **DR. TRAVIS:** Yes, and that's a valid point, Trevor, and I wish we
4 were in a position to answer it, but, you know, whenever we work
5 on a regulatory amendment, plan amendment in general, just a
6 regulatory analysis, we need to establish the baseline economic
7 conditions, to the best of our ability, and, given the data that
8 we have now, we think the 2015 to 2019 is more indicative of
9 economic conditions in the fishery than 2014 is, and when -- Now,
10 Matt can correct me if I'm wrong, but my recollection, from the AP
11 discussion, is that the industry folks agreed that 2015 to 2019
12 was more indicative of, you know, quote, unquote, current economic
13 conditions, and they were okay with us using those averages, the
14 five-year averages, from that time period as indicative for
15 economic conditions, even with us not having all the 2020 and 2021
16 economic data.

17

18 **DR. FREEMAN:** Right, and so, as Mike said, we need the baseline
19 information, specifically for the purpose of the economic analysis
20 that we do in our shrimp amendments, and, yes, Mike, you remember
21 correctly. When this got presented to the AP, they also discussed
22 various thoughts for why 2014 was an outlier, and they concurred
23 that that should be treated as such and not included for the
24 baseline data.

25

26 **CHAIRMAN NANCE:** Don.

27

28 **MR. BEHRINGER:** Okay, and that kind of actually goes to my
29 question, and so, if we went back to say 2010, from 2010 to 2014,
30 it was similar to the way it was from 2015 to 2019, and it was
31 just 2014 that was a strange, anomalous year, Mike?

32

33 **DR. TRAVIS:** So, as Jack said, things got better in 2013, but 2014
34 was what I would call the recent economic peak, and 2010 was
35 definitely not a good year, and that was the year of the oil spill,
36 and so, no, not -- I think the only way that some vessels survived
37 in that year was because they participated in the -- What did they
38 call that, the vessel -- We called it VOOB, and it was the vessel
39 operating program.

40

41 **SSC MEMBER:** The vessels of opportunity.

42

43 **CHAIRMAN NANCE:** Yes, vessels of opportunity.

44

45 **DR. TRAVIS:** So that helped a lot of boats survive in that year,
46 because, otherwise, they would not have made it through that year,
47 and 2009 was a horrible year for the fishery, and so 2011 and 2012
48 were kind of middling, I would say, better than 2009 and 2010, and

1 then you had the bump-up in 2013, and then the economic peak in
2 2014, and then it dropped down to what we just went through since.
3

4 **CHAIRMAN NANCE:** Okay. Any other -- David, please.
5

6 **DR. GRIFFITH:** Mike, I noticed that the number of permits, from
7 2015 to 2019, is pretty stable, and it's gone from -- Active
8 permits has gone from about 1,060 to 1,008, and so, over that time
9 period, it doesn't look like there's been much -- If any of the
10 vessels are leaving the fishery, and is that accurate? Are people
11 staying in, even though they're making less money?
12

13 **DR. TRAVIS:** It's marginal, and, you know, the returns are
14 marginal, and it's enough for them to stick with it, and not bad
15 enough for them to get out, and so I guess you would kind of say
16 they're hanging in there because they're making some money, even
17 though it's not as much as they were making in 2013 and 2014.
18 That's kind of typical.
19

20 **DR. GRIFFITH:** I also know that some of the Texas shrimpers are
21 using H2 workers, mostly Mexican workers that come in with H2
22 visas, and is that true across the Gulf, or just with Texas? Do
23 you know?
24

25 **DR. TRAVIS:** On the boats or at the processing facilities? I know
26 that they use them in the processing facilities.
27

28 **DR. GRIFFITH:** Both, but on the boats, and I know the shrimpers
29 have been using them on the boats as well.
30

31 **DR. TRAVIS:** We have not asked about that, and so I would hesitate
32 to say anything, because I just don't know.
33

34 **CHAIRMAN NANCE:** Okay. Is there any issue with -- I know it's
35 hard to verify, but it looks like, for their analysis, they're
36 going to use 2015 through 2019, and I think there is pros and cons
37 of anything, and 2014 certainly was a high year, and that was 2010,
38 and so you've got -- As Mike was indicating, it looked like 2010
39 was real low, and 2013 and 2014 sounds like it was high, and these
40 last four years, it seems like we've gone in kind of a downward -
41 - A little downward slope here, so that 2015 is -- Well, 2019 is
42 a lot more different than 2014.
43

44 I see where 2014 was, in some of the things, comparable with all
45 the other years, as pounds per gallon -- They were very similar
46 and those types of things, and so, while it looks like there are
47 similarities, from, I guess, a profitability standpoint, 2014 was
48 a little bit different than the other years. Any other questions

1 or concerns from the SSC? Dr. Travis, we appreciate your
2 presentation, and I wish you could have been here in-person, but
3 it's good to hear you.

4
5 **DR. TRAVIS:** Thank you very much. I appreciate all the feedback.

6
7 **CHAIRMAN NANCE:** Thank you. We'll now go ahead and have
8 Presentation Number IX, and I think -- Skyler, are you on?

9
10 **DR. SKYLER SAGARESE:** Yes, I am. Can you hear me?

11
12 **CHAIRMAN NANCE:** Yes, we can .

13
14 **DR. SAGARESE:** Okay. Great.

15
16 **CHAIRMAN NANCE:** One of these days, you will show up here. It
17 will be good to see you. Okay, young lady, we'll go ahead and
18 hear your presentation.

19
20 **DR. SAGARESE:** All right. Let me just make sure that I'm showing
21 my screen with the presentation. Hopefully you see my title screen
22 now.

23
24 **CHAIRMAN NANCE:** Yes, we do.

25
26 **REVIEW: SEFSC ANALYSIS OF RED GROUPER STOCK ASSESSMENTS USING**
27 **ALTERNATIVE MARINE RECREATIONAL INFORMATION PROGRAM LANDINGS**
28 **DATA**

29
30 **DR. SAGARESE:** Okay. Great. I'm here today to follow-up with
31 some requests, kind of going back in time with the red grouper
32 model from SEDAR 42, and SEDAR 42 occurred in 2015, and it had a
33 terminal year of 2013.

34
35 **CHAIRMAN NANCE:** Skyler, I am going to interrupt you for one
36 second, and I apologize.

37
38 **DR. SAGARESE:** Sure.

39
40 **CHAIRMAN NANCE:** I'm going to have the scope of work, and Ryan is
41 going to present the scope of work, and so we're kind of why we're
42 talking about this, and I think we'll have some better context of
43 why we're hearing this.

44
45 **DR. SAGARESE:** Absolutely.

46
47 **MR. RINDONE:** All right, and so Skyler is going to review and
48 analysis of the SEDAR 42 and 61 stock assessments for Gulf red

1 grouper, including applying the MRIP-FES revised recreational
2 landings for the private vessels to a corrected version of the
3 SEDAR 42 base model, and this corrected version accounts for a
4 misspecification for the virgin biomass and recruitment, and it
5 was necessary to be able to compare what Skyler is doing here with
6 SEDAR 42 to what was ultimately done and approved in SEDAR 61.

7
8 The result is an examination of the probable catch limits resulting
9 from these model variants, and so you guys should examine the data
10 and results and ask questions and make any recommendations, as
11 appropriate.

12
13 **CHAIRMAN NANCE:** Thank you. Skyler, I apologize for interrupting
14 you, and so we'll go ahead with your presentation.

15
16 **DR. SAGARESE:** Okay. Great. No problem at all. The context
17 definitely helps. Okay, and so, as Ryan mentioned, this is kind
18 of going back in time to SEDAR 42, and, when we went through the
19 SEDAR 61 assessment, back in 2019, for red grouper, we spent a
20 good bit of time talking about an initial fix that had to be made
21 to that SEDAR 42 model.

22
23 With our grouper models, particularly for red grouper, we don't go
24 back as far in time as we do with some of the other species, and
25 so our assessment models tend to start in 1986, because that's
26 when we have the most trust in our landings streams, and, in this
27 case, because we know we're starting the population in a fished
28 condition, we often have to estimate the initial condition, and so
29 we often do that by specifying initial equilibrium catches, and we
30 generally use the average of the first five years of data to kind
31 of set that point.

32
33 From there, the model estimates an initial fishing mortality that
34 gets us at that starting point, and then, from there, the model
35 projects forward throughout the historic time series of data that
36 we have, and so I think some of you might not have been around for
37 SEDAR 61, and so I'm going to spend a little bit of time reviewing
38 some of the issues that we did discuss in detail during SEDAR 61.

39
40 One of the big issues was, during that SEDAR 42 assessment, back
41 in 2015, there were some really large changes made to the model
42 configuration during the review workshop, one of the biggest being
43 changing the start year of the model from 1986 to actually 1993,
44 and that was at the request of the reviewers at the time, and so
45 what that meant was that, overnight, basically, the assessment
46 analyst, at the time, was kind of going back and reevaluating and
47 re-estimating all the inputs, as well as combining the recreational
48 charter, private, and headboat fleet into a single fleet, and so

1 there was, obviously, a lot of work to do in a very short amount
2 of time.

3
4 What ended up happening is that SEDAR 42 model, that was ultimately
5 used for the catch advice, did have an error in how those initial
6 equilibrium catches were specified, and so the model actually was
7 -- It was actually just the sum of those five years, and not the
8 average, and so the model was starting from a much larger
9 population, and it basically thought the stock was more productive.

10
11 When we went through SEDAR 61, we didn't really have -- Number
12 one, we didn't really want to compare all the outputs and spend
13 too much time focusing on SEDAR 42, because of this big error, as
14 well as we didn't really have the time to go back and reevaluate
15 some of these decisions, because, at that time, for SEDAR 61, we
16 were the first assessment to review and use the new MRIP-FES data,
17 and there was a lot of changing that had to be made during that
18 model, and so we were busy, and, therefore, we didn't really spend
19 a lot of time going back to that SEDAR 42 model and saying what
20 would the results have been had we used the MRIP-FES data at that
21 time, and so that's what today is about.

22
23 The first thing I want to highlight here is, for what we're going
24 to show today, we are using that SEDAR 42 final model, but we've
25 converted it to the Stock Synthesis 3.3, the newest version that
26 we've been using more recently. In the assessment report for 61,
27 we show we get the identical result, and so we're comfortable
28 moving forward with that, and the reason why we had to transition
29 to this version for this model is so that we can use the new,
30 improved projection methodology that's been used for our Gulf
31 assessments recently, the code that's been developed by Nathan
32 Vaughan, and that's been reviewed by this SSC, I think quite
33 frequently, in the last few months.

34
35 What I've done is, obviously, the first task was to correct the
36 initial conditions, and so to update those initial equilibrium
37 catches, so that we're starting from the point where we expect,
38 and then the next step, from there, is, once we've corrected that
39 issue, was then to incorporate the MRIP-FES data, both landings
40 and discards, for the historic time period through 2013, and so
41 taking that SEDAR 42 final model, fixing the initial conditions,
42 and then adding in the new MRIP data, to see what the model results
43 would have been.

44
45 Now, in red, I am just highlighting that, normally, before we often
46 do projections, we would want to evaluate, thoroughly evaluate,
47 the sensitivity, the diagnostics, and we didn't have time, for
48 this analysis, to rerun all of that, all of those analyses for

1 each of these runs, and so, at this point, we're just showing two
2 different sensitivity runs of the SEDAR 42 final model, and we're
3 projecting them forward in time, so that we can see what the catch
4 advice would have been at that time, had we -- Number one, had we
5 used the MRIP-FES data, and, number two, had we implemented our
6 improved projection methodology that we've developed since this
7 assessment.

8
9 The take-home here is I'm just trying to compare and show that
10 there's not a lot of changes, and there is still -- In each of
11 these models, we had a lot of parameters that were estimated with
12 CVs above one, and there was a lot of improvements that needed to
13 be made to this model, which we did do during SEDAR 61. We made
14 quite a few changes during that standard assessment that was
15 reviewed back in 2019.

16
17 Now, comparing the results, and so, just to kind of refresh, many
18 of you saw, have seen, some of these results from -- If you were
19 involved in the SEDAR 61 panel, but, for some of the newer SSC
20 members, basically, what we're going to show now is just to compare
21 the trajectories of the major model outputs with each of those
22 changes, and so how did the changes that we made, updating the
23 initial conditions, as well as then adding in MRIP-FES, and how
24 did that change some of our derived quantities.

25
26 The first we'll look at, on the left-hand side, is just the
27 spawning stock biomass. For red grouper, we did have batch
28 fecundity estimates, but our SSB is actually a combination of the
29 proportion female, the proportion mature, and that batch
30 fecundity, and so it's not an absolute number, and so what you're
31 seeing with spawning stock biomass is just the scaled number of
32 eggs, and it's just relative, and what we see here is that, in
33 each of these figures, the blue will be the SEDAR 42 model, and
34 the red will be where we updated the initial conditions, and then
35 the green line will be where we also included the new MRIP-FES
36 data.

37
38 The take-home, and what we discussed quite a bit during SEDAR 61,
39 is this did have a very large impact on the model results, where
40 you can see, on the left, that, basically, the virgin SSB is this
41 point that's on the left-hand side of the curve, and you can see
42 that it's much more uncertain in that SEDAR 42 model, and then,
43 when we corrected that issue, it comes more in line, and so that
44 starting point was really affected by that issue, the error in the
45 initial catches.

46
47 On the right-hand side is, again, just kind of zooming-in on that,
48 and you can see that it's much more uncertain, and there's a much

1 wider range for that initial model, but, once we correct it, we
2 actually see a much narrower distribution, once we've corrected
3 the issue, but then, when we added MRIP-FES, we also see an
4 adjustment, where the SSB just increases a bit, and so, as a
5 reminder, red grouper is mostly commercial, and the historic
6 allocations, before Amendment 53, was 76 percent commercial and 24
7 percent recreational, and so adding, or changing, to the MRIP-FES
8 data does have an impact on the end results, but it's not as large
9 as some of the other stocks that are more recreationally dominant.

10
11 Looking at comparing, on the left-hand side, where we're comparing
12 the recruitment estimates from each of those three models, there
13 is not a big change, except for that initial point, where you can
14 see, on the left-hand side, the SEDAR 42 model had a much larger
15 estimate, compared to the others, and, on the right, it's just
16 kind of that zoomed-in again, where see that SEDAR 42 model
17 estimated about thirty-two million age-zero recruits, initially,
18 and then we can see that, once we corrected the issue, the error,
19 it would have been nineteen million, but then it bumped up to about
20 twenty-four million.

21
22 The one issue, looking back, that the SEDAR 42 model -- One of the
23 things that was discussed was it had a very high estimate of sigma-
24 R, over one, which was really, really large, and, once that issue
25 is corrected, we see that it comes down a bit more, and it remains
26 constant, at about 0.8, which is still fairly high. Some of our
27 assessments, we often fix it at 0.6, but so that was one issue
28 that, in addition to -- You know, there was just a lot more
29 uncertainty in that model, starting from that point, and,
30 therefore, I think that the sigma-R was also kind of a symptom of
31 that issue as well.

32
33 Lastly, comparing just the trend in fishing mortality, and so, in
34 red grouper, it's comparison of an exploitation rate, and so it's
35 just looking at the fraction of the population that's removed by
36 fishing, as well as, in this 2005 point, you can see that it's
37 very high, because that red tide mortality was estimated for 2005.

38
39 During SEDAR 42, the terminal year was 2013, and so, for 2014,
40 which would have been the first year of projections, there was
41 also a considerable red tide that, at the time, was not considered,
42 during that assessment, to be severe enough for inclusion, and so
43 what we're looking at is just one red tide event for this model,
44 for this historic time period, through 2013.

45
46 Now, kind of what we've worked on, since then, is going into our
47 projection methodology, and I have rerun the projections with the
48 two sensitivity runs that I have shown, assuming that the

1 allocations would have been 76 percent commercial and 24
2 recreational, because that's what was in place in the time of SEDAR
3 42.

4
5 We're using the fishing mortality from the last three years, which
6 is our general practice, and we're assuming selectivity,
7 retention, and also discard mortality are the same from that last
8 time block, and so, from 2013, whatever those trends were, we're
9 using that forward, and, very importantly, for red grouper,
10 steepness is fixed at 0.99, and so, when we're projecting forward,
11 we're using the spawner-recruit curve, but we're essentially --
12 That's more of a convenience than admitting that -- That's not
13 really a biological plausible estimate of steepness, and it's just
14 a convenience of fixing it.

15
16 For the purpose of the landings during the projection years, for
17 2014, I used the same landings that were used for the SEDAR 42
18 model, and then, for the 2015 landings, I did what was done for
19 SEDAR 42, was I either used -- Assumed that the 2015 recreational
20 ACL would be taken or that the 2015 MRIP-FES landings would be
21 used for that model that used the FES, and, again, I assumed the
22 allocations at that time, and I have not updated the allocations
23 based on Amendment 53, to try to keep everything as similar as
24 possible to what was done previously.

25
26 The take-home here is this is a table comparing the OFL estimates
27 and the ABCs, for million pounds gutted weight. For red grouper,
28 I think the ABC was calculated with a P^* of 0.427, and so, for
29 those five years -- So, again, the terminal year was 2013. In
30 2014 and 2015, we had fixed catches, and 2016 was the first year
31 we were providing catch advice, and so, for the five years, the
32 average was ultimately used for the OFL and ABC for red grouper,
33 and what, for the original model, was an OFL of 14.16 million
34 pounds gutted weight, once we corrected that issue for the initial
35 equilibrium catches, it would have dropped to about thirteen
36 million pounds gutted weight, but then, once we would have
37 implemented, or added in, the MRIP-FES data, it would have bounced
38 up to about 14.8.

39
40 Similarly, the ABC follows a similar trajectory, and so just
41 another way to visualize this is essentially what we've seen is
42 that, by correcting the issue, we did see changes in the model
43 configuration, in corrections that we noted, and we had a lot more
44 uncertainty when we assumed a much higher starting point, but,
45 then, once we add in the FES landings and discards, we do see
46 increases in our trajectories for spawning stock biomass, both at
47 the starting conditions as well as all the different years, and
48 also recruitment, which is generally what we've seen with many of

1 our other stocks, and so, again, you know, dropping -- Correcting
2 the issue, and then adding in FES, what the OFL would have been is
3 it actually would have been 14.8 and not 14.16.

4
5 That's all that I have prepared, and I haven't really prepared a
6 comparison table with SEDAR 61, because the numbers are not quite
7 comparable, for many years. When SEDAR 42 was occurring, we can
8 see it in the SSB trajectory, that the stock was increasing, and
9 things were very optimistic, but then SEDAR 61 had a terminal year
10 of 2017, and we had the red tide of 2014, and then 2018, and so
11 the trajectory was in a much, much different place, but that's
12 kind of what I have prepared for this analysis. I'm happy to take
13 any questions. I'm sorry, and this was done in response to a
14 council request.

15
16 **CHAIRMAN NANCE:** Yes, and we greatly appreciate this analysis, and
17 we know that this is SEDAR 42, and we've already done SEDAR 61,
18 but the council had asked for this comparison to be done, and so
19 we're just looking for comments from the SSC about this analysis.
20 Dr. Frazer, is there anything from the council to be aware of?

21
22 **DR. FRAZER:** I think that people just recognized that there is
23 some changes that needed to be made to the model, and so they just
24 wanted to see the output.

25
26 **CHAIRMAN NANCE:** John, please.

27
28 **DR. FROESCHKE:** Skyler, my question -- I guess, just thinking this
29 through, when we added the FES to the SEDAR 61, we thought that to
30 reflect the historical participation and that, but, when we changed
31 the allocation from the 76/24 to the roughly 60/40, that reduced
32 the OFL by about 15 percent, and so, if we were to use the FES in
33 this, and you were to say, okay, we're going to make the allocation
34 more reflective of what we actually thought in time, would we
35 actually expect that similar reduction in the OFL that you produced
36 here?

37
38 **DR. SAGARESE:** It's hard for me to comment on what we think will
39 happen, because of the differences -- Whenever we do projections,
40 they're all based on all those assumptions, and I just want to
41 highlight that, with SEDAR 61, we made a lot of improvements to
42 that model, where -- I mean, it's a good question, and I know this
43 comes up all the time, because, when we do projections, we are
44 projecting forward assuming that discarding behavior will be the
45 same, but, once we've increased the magnitude of the removals by
46 the recreational fishery, that also scales up the dead discards
47 that get discarded during the projections, and that does lead to
48 the reduction in the OFL.

1
2 I can't -- I would have to look back and do an analysis, but, if
3 you're saying that there should have been a 15 percent reduction
4 both times, I would just have to say that that's got to be a
5 combination of all the different assumptions that we're making
6 within the projections, changes to the model configuration, and we
7 also had, remember, the mean weight adjustment to the projected
8 recreational landings. I think that there's a lot of different
9 moving pieces here going on.

10
11 **CHAIRMAN NANCE:** I think a comparison between 42 and 61 is -- We're
12 just going to be chasing things, and I'm not sure that we're going
13 to be able to do that. This is -- I think we just need to look at
14 this as simply taking SEDAR 42, that model, and updating with
15 correction of the errors, and then adding the MRIP, to see what
16 the results are of that, and I think that's where we need to stick
17 with -- That's what the presentation is. John.

18
19 **DR. FROESCHKE:** Just as a follow-up, the 15 percent that I quoted
20 was based on the SEDAR 61, where all of those other assumptions
21 were essentially in that analysis, and so the only difference
22 between the 60/40 and the 76/24, at that particular time, was just
23 the allocation, and so I guess my question is, on this, some of
24 the differences that you see -- Yes, it's the FES data, but it's
25 also the changes in the selectivity that are implicit with that,
26 and so I'm just wondering if the OFL that was reported here is too
27 optimistic in that same way.

28
29 **CHAIRMAN NANCE:** Shannon.

30
31 **DR. CALAY:** One thing, just to bring a little context to this
32 presentation, this is a presentation that resulted specifically
33 from a council request, and the intent of the council request was
34 really to better understand the effect of FES, and, in order to do
35 this, we did have to engage the SEDAR 42 model, which is why we're
36 talking about it, but that model was many, many years ago now, and
37 there has been SEDAR 61 since, and so I just wanted to remind the
38 group that the intent of this presentation really was to look at
39 the effects of the FES catch adjustments.

40
41 **CHAIRMAN NANCE:** Dr. Frazer.

42
43 **DR. FRAZER:** But, for clarification, and to John's point, right,
44 the sector allocations, right, for SEDAR 42 were 73/27, or whatever
45 it is, 74/26.

46
47 **DR. CALAY:** Yes, and I will let Skyler respond to that detail.

48

1 **CHAIRMAN NANCE:** Okay. Skyler.

2
3 **DR. SAGARESE:** Yes, and so that's correct, and so the allocations
4 -- One thing that will change with that 60/40 is the change in
5 allocation, but John did mention that it how the selectivities
6 have changed, and it's not just that, but, when we project the
7 population over time, that population structure -- So we're
8 projecting twenty age classes of red grouper, and, depending upon
9 how the selectivity and retention and discards -- How all of those
10 processes affect the population structure, at each age class, once
11 we get to the end of the projection, the OFL comes from that, and
12 so, if there's changes to that population structure, you will see
13 changes in the magnitude of the OFL and ABC, and so that is --
14 There are a lot of processes going on within the projections that
15 we do run.

16
17 **DR. FRAZER:** Thanks, Skyler.

18
19 **CHAIRMAN NANCE:** Thank you. Doug Gregory, please.

20
21 **MR. GREGORY:** Thank you, Mr. Chair, and thank you, Skyler. I
22 appreciate all the work you've done with this, and I'm glad that
23 you were able to do this, when we couldn't do something similar to
24 this with king mackerel, and that was frustrating.

25
26 You mentioned, early on, that the commercial landings dominated
27 this, and, therefore, the FES didn't have a more significant impact
28 on this, on something, and I don't recall what it was, but my
29 understanding is, even though the quota was higher for commercial,
30 in those latter years, the recreational landings were greater than
31 the commercial landings, and so you're inputting the actual
32 landings into this model, and you're not assuming a certain
33 allocation going into that, are you?

34
35 **DR. SAGARESE:** For the model building, the historical period, we're
36 using the actual commercial landings and recreational landings.

37
38 **MR. GREGORY:** That's what I thought.

39
40 **DR. SAGARESE:** But the allocations, moving forward in time, we are
41 projecting that, each year, each fishery will take out -- The
42 commercial will take out 76 percent, by weight, of the catches, or
43 of the landings, and the recreational will do 24 percent, and so,
44 in the projections, we have changed our methodology that, when we
45 say we are holding allocations constant, we are, but, yes, we are
46 using the historic data, and the allocations were updated by
47 essentially just putting in, plugging in, the MRIP-FES landings
48 and recalculating what the proportion of catches would have been,

1 and so what used to be 76/24 was changed, based on adding in the
2 MRIP-FES.

3
4 **MR. GREGORY:** So MRIP, historically -- I mean, recreational
5 landings, going into the model historically, were recalibrated and
6 assumed to be FES landings and not the older CHTS that was used in
7 SEDAR 42? Did I understand that correctly?

8
9 **DR. SAGARESE:** Right. What I've done is I have taken the data
10 provided, the updated data from MRIP-FES, the estimates provided
11 by the Science Center, and plugged those into the model, because
12 those are now, moving forward, the best available data for us, and
13 so the MRIP-FES landings estimates are what I put into this model,
14 as well as what we used during SEDAR 61, and reviewed, and,
15 essentially, the first assessment workshop we had for SEDAR 61
16 covered all of the new recreational data inputs, the landings, the
17 discards, the size data, the indices, et cetera, and so, yes, all
18 we've done is implemented, or input, the MRIP-FES data for this
19 analysis into the SEDAR 42 model.

20
21 **MR. GREGORY:** Thanks for the elaborate explanation of a stupid
22 question, because that was the whole purpose of this, was to input
23 FES, and I just was getting historical mixed up with the
24 projections.

25
26 The other question, the last question, I have is did this SEDAR 42
27 updated version, and projections, match, or come close, to those
28 that were done in SEDAR 61, as they -- What's the word? A
29 transitional analysis, and what do you call it when you go back
30 and rerun the old assessment and see how it compares to the new
31 and identify the differences.

32
33 **MR. RINDONE:** Continuity, Doug, a continuity run.

34
35 **MR. GREGORY:** Yes, a continuity run, and does this SEDAR 42 fixed
36 analysis look similar to the continuity run out of 61?

37
38 **DR. SAGARESE:** In terms of the continuity results, we did do quite
39 a bit of a bridging analysis, during the SEDAR 61 model, and showed
40 the results in the report. For the purpose of the continuity, for
41 SEDAR 61, the only changes that were made to that assessment model
42 were, obviously, we did not have the old MRIP-CHTS data, and so we
43 had to include the MRIP-FES data, but remember we also had the
44 improved estimates of commercial discards in what would have been
45 our SEDAR 61 continuity model, and we did show those results, in
46 detail, in that assessment report. We didn't do any projections
47 of any of those steps, but we did show how we got from the SEDAR
48 42 model all the way through to the SEDAR 61 model, and there were

1 quite a few changes that were made.

2
3 **MR. GREGORY:** Thank you. I appreciate it. Thank you, Mr. Chair.

4
5 **CHAIRMAN NANCE:** You're welcome. Any other questions from the
6 SSC? Seeing none here, any online? Skyler, thank you for that
7 presentation. We appreciate that information. we'll go ahead and
8 take a break now until -- We'll come back at 11:00 Eastern Daylight
9 Time, to make sure you guys in Texas will come back on time, and
10 so we'll go on break now for a minute.

11
12 (Whereupon, a brief recess was taken.)

13
14 **CHAIRMAN NANCE:** We'll go ahead and start gathering again. Okay.
15 I appreciate everybody being back in attendance. We're going to
16 skip Item XI, the goliath grouper discussion, and we'll do that
17 after lunch, probably, and it depends on how long we do this next
18 item, and we're going to do Item XII first, which is terms of
19 reference for the State Reef Fish Survey for SEDAR 72, and, Ryan,
20 do you want to take us through the -- Thank you.

21
22 **REVIEW: TERMS OF REFERENCE FOR STATE REEF FISH SURVEY RUN OF**
23 **SEDAR 72 MODEL FOR GULF GAG GROUPE**

24
25 **MR. RINDONE:** Sure. You guys are, obviously, familiar with the
26 Florida State Reef Fish Survey at this point, and so the council
27 had made a request of the Southeast Fisheries Science Center to
28 take the completed SEDAR 72 base model for gag grouper that you
29 guys have already reviewed, and, for the private vessel landings,
30 to supplant those MRIP-FES landings with those as derived as
31 Florida's State Reef Fish Survey for gag.

32
33 This additional model run, with complete diagnostics and
34 projections, will be completed in 2022, using data through 2021,
35 and will substitute out that MRIP data, and, again, this is just
36 for the private vessel directed fleet, and so SEDAR 72, as many of
37 you will remember, found gag to be overfished and undergoing
38 overfishing, as of 2019, and the council has initiated work on a
39 rebuilding plan of the stock, which will need to be implemented by
40 January 1, 2024, and that's because gag is part of the grouper-
41 tilefish IFQ program, and so it's important to get these
42 regulations on the book before the IFQ quota is released, because,
43 once it goes out the door, it does not come back.

44
45 The SSC should evaluate the terms of reference and provide
46 recommendations, as appropriate, and this is a bit of a rough
47 draft, and definitely we'll be looking towards the Science Center
48 and Dr. Barbieri for some input on this, as it relates to the model

1 and to the SRFS survey, and to the rest of you for your input as
2 well, and so let me have your edits.

3
4 **CHAIRMAN NANCE:** Thank you. I think that each of you can remember,
5 when we went through SEDAR 72, those models, and there was a
6 sensitivity run that was accomplished with this data, and it didn't
7 have all of the diagnostic runs and so forth, and so this is to
8 specifically run that model with the state data within it, and so
9 let's go ahead, and Ryan is going to take us through the terms of
10 reference here, and I want to make sure that, in these terms of
11 reference, we're covering what we as an SSC want to see out of
12 this run, so that we're not trying to fix things after, after the
13 analysis. Jason.

14
15 **MR. ADRIANCE:** Thank you, Mr. Chair, and this is more of a question,
16 and I think you sort of answered it, but this is a straight-up
17 substitution of the SRFS and not converting the SRFS to FES, but
18 just plugging those in in place? All right. Thanks.

19
20 **CHAIRMAN NANCE:** Jason, that's correct. Luiz.

21
22 **DR. BARBIERI:** Thank you, Mr. Chairman, and, Jason, yes, good
23 question, because that's -- The idea, right, is that we've been
24 working, regionally, and you know the process, right, for
25 developing a lot of these supplemental surveys, right, to MRIP
26 that can be more focused on some specialized fisheries that may
27 not be well covered by a general survey like MRIP, and so this
28 idea that we developed, the State Reef Fish Survey, with the idea
29 of having this supplemental survey, and it should be, you know,
30 fairly compatible, we think, with the MRIP framework, where the
31 APAIS is actually conducted in concert with the MRIP-APAIS, and so
32 the sample selection, and, actually, the site selection and the
33 samples for the dockside survey is actually conducted in I think
34 Silver Spring, as part of the regular MRIP sample selection
35 process, the draws, sampling draw.

36
37 The idea was that we can use this survey, that is more specialized,
38 for a fishery like grouper, that is basically 99.9 percent of the
39 landings come from Florida, and so that would allow us to use this
40 more specialized survey, and we went through a calibration process,
41 right, and the calibration process would allow us to then generate
42 a retrospective time series of landings, all the way back to 1981,
43 right, and so that calibration process is now in the process of
44 being actually peer reviewed, and we've been discussing this with
45 OST, and NOAA Fisheries, in general, and so that's being peer
46 reviewed, with the idea that all of this is going to be approved
47 and that this assessment rerun is going to be accomplished using
48 this new data series.

1
2 **CHAIRMAN NANCE:** Sean.
3
4 **DR. POWERS:** So, just to follow-up on Jason, and so it's not just
5 a straightforward substitution, and, in the recent years, it's a
6 straightforward substitution, but you still have a calibration
7 back for historical, and I guess the difference being that, with
8 all these calibrations, I assume, for the calibration, you assume
9 the state data is correct and then calibrate MRIP to the state.
10
11 **DR. BARBIERI:** Correct. Yes, and so that's the idea, and it's not
12 a matter of correct or incorrect, as you know, and it's simply a
13 matter of which survey is more appropriate for that stratum of the
14 fishery that we are talking about here.
15
16 **DR. POWERS:** You have to assume that one is correct, at the end.
17
18 **CHAIRMAN NANCE:** You're assuming one is what you're calibrating
19 to.
20
21 **DR. BARBIERI:** Correct.
22
23 **DR. POWERS:** Right, and that's probably a better way to -- So do
24 you handle -- Because I know, with other states, it's a problem,
25 with closed season discards and all of that, and so the state
26 survey takes care of all of those, and you don't have those
27 complications that some other state surveys have.
28
29 **DR. BARBIERI:** No, and, fortunately, that's not the case with the
30 State Reef Fish Survey, and so it's a year-round survey, and it
31 monitors both landings and discards, right, and so all of these
32 parameters actually included in the terms of reference for this
33 calibration review is to make sure that all of the boxes are
34 checked, right, and we have approval to have this, as appropriate,
35 for use in stock assessments.
36
37 **CHAIRMAN NANCE:** Will.
38
39 **DR. PATTERSON:** Thanks, Jim. In this process, when this comes
40 before the SSC, I assume that we would also look at that
41 calibration that Luiz just mentioned, and then, when comparing the
42 model runs, or estimates, with MRIP-FES as the recreational,
43 private rec, time series, versus the SRFS time series, why wouldn't
44 you also update the SEDAR 72 model for MRIP-FES through the time
45 period that you're going to be considering examining for SRFS? It
46 seems like you would want to update the SEDAR 72 model with the
47 current approach to estimating private rec landings and then
48 compare that, for the full time period, to SRFS.

1
2 **CHAIRMAN NANCE:** Shannon, please.
3

4 **DR. CALAY:** Well, I would say that, you know, we've done a lot of
5 demonstrations now of the rec statistics and their differences on
6 OFLs and ABCs, and we consistently do a model-building exercise,
7 which is also contained in the report, of the assessments. What
8 we want to specifically avoid is creating two alternative models
9 that could not easily be determined which one is best to use, and
10 so we intend to use the statistics that are felt to be most reliable
11 for the model when we conduct the stock assessment, and presumably
12 that will be GRFS, or SRFS, but, you know, I already suspect that
13 we'll be doing some sensitivity runs.
14

15 **CHAIRMAN NANCE:** Will, does that address your question?
16

17 **DR. PATTERSON:** Partially. I don't understand what Shannon means
18 by sensitivity runs. It seems to me that, if you're going to
19 compare the performance of the two, then you would do that
20 comparison, and, as far as the calibration component, it seems
21 like we would have to examine that and determine which is the
22 better approach. I understand we've looked at some of these things
23 in the past, but, in this specific context, it seems like we would
24 want to drill down a little deeper on that.
25

26 **CHAIRMAN NANCE:** Luiz, to that point?
27

28 **DR. BARBIERI:** Yes, and, Will, to the point of the calibration,
29 right, and so there are two different things here. One is the
30 calibration process that will demonstrate, right, that there is a
31 valid process for calibrating SRFS data -- I mean, the MRIP data
32 to the SRFS metric, going back in time, retroactively to the
33 beginning of the time series.
34

35 That peer review process for the calibration is taking place with
36 a set of independent experts that are being contracted by OST that
37 will be -- There are terms of reference that were approved for
38 that purpose, and there will be an actual review report that's
39 being produced, and so all that documentation will be available,
40 or should be available, to the SSC when it reviews the new runs,
41 I think in July, and so I cannot speak about the other points, but
42 in terms of the calibration process.
43

44 **DR. PATTERSON:** So, when we see this new approach to SEDAR 72, we
45 would then be reviewing this document that examined the
46 calibration, and is that what you're saying, Luiz? It seems to me
47 that that would have to come before the SSC ahead of actually
48 reviewing -- Utilizing it in the assessment.

1
2 **DR. BARBIERI:** Will, what you're asking is that the calibration
3 review report be provided to the SSC in advance of the actual
4 assessment run and not as part of the package of documentation
5 that is going to be provided?
6

7 **DR. PATTERSON:** It seems to me, when we've considered changes in
8 data inputs such as this, that the SSC has reviewed it ahead of
9 time, and I can understand the desire of the state, and perhaps
10 even the Southeast Fisheries Science Center, to examine the new
11 time series of data, but this feels like kind of putting the cart
12 before the horse a little bit here, and I understand also that
13 there is going to be a peer review process, perhaps quite
14 extensive, to examine that calibration, but, ultimately, you know,
15 there is peer review done in different approaches for other data
16 sources.
17

18 The Great Red Snapper Count, for example, most recently, that CIE
19 review then was reviewed by the SSC, and it just seems that's our
20 typical mode of operation, that we would consider that calibration
21 report and review ahead of time. If it has to be concurrent, so
22 be it, but it just seems like that should be part of the terms of
23 reference here, that that review at the SSC level occur.
24

25 **CHAIRMAN NANCE:** Luiz.
26

27 **DR. BARBIERI:** To that point, Will, in that case, and I understand
28 your point, and I think, ideally, that would be the process, right,
29 that would take place, and so there are two factors here that are
30 coming into play.
31

32 One is that the council -- You know, now that we had an assessment
33 that was conducted and reviewed by the SSC, and some management
34 actions need to get started, and that clock has started running
35 already, as far as getting the rebuilding plan in place, and so
36 there is a bit of a rush to get this next one -- For the assessment
37 completed in time for that process to take place, number one.
38

39 Number two, although I understand your point about having that
40 peer review of the calibration process provided ahead of time, I
41 would put this similar -- I would compare this similar to when we
42 get, after either a research track assessment or the previous
43 benchmark assessment, that are reviewed by the SSC, right, and the
44 CIE reviewers, that we receive the CIE review reports at the same
45 time that we review those assessments. Obviously, we are going to
46 receive all the documentation in the briefing package in time for
47 discussion of the SSC, like we review everything else.
48

1 **CHAIRMAN NANCE:** Okay. Katie.

2
3 **DR. KATIE SIEGFRIED:** Thank you, Chair. It was nice to see a lot
4 of you last week, and I'm sorry that I can't be there this week,
5 and I just had a question about Ryan's statement of work, and it
6 might affect what Will was just asking about, where it said that
7 data will go through 2021, and the understanding that we've had,
8 with the council request and with SERO, as we're preparing to do
9 this run, is that the terminal year of data in the base model would
10 not change.

11
12 However, we can incorporate more recent data in the projections,
13 but we have to understand the difference between that terminal
14 model request, terminal year request, and what is in the
15 projections, and maybe Ryan could clarify, because, if it's -- If
16 the terminal year is not extended, then the comparison that Will
17 is asking for will be available, and so the MRIP data were used in
18 the base run, the FES units, and then what will be provided is a
19 new base run with SRFS for the private landings.

20
21 I'm not sure what the consultants will say, whether there will be
22 a lot of sensitivities, and I don't anticipate a lot at this point,
23 from what I understand, but, if we could get some clarification on
24 the terminal year, that would help the discussion, I think.

25
26 **CHAIRMAN NANCE:** Ryan, any --

27
28 **MR. RINDONE:** I'm chatting over here with Dr. Frazer, and I think
29 part of the concern is the age of the advice, because we're talking
30 about making decisions that will affect the 2024 fishing season,
31 or perhaps the 2023 fishing season, if this is available to be
32 used for the emergency rule, but, based on the terminal year of
33 2019, and this is a very common thread of consternation from most
34 of the stakeholders about the age of the advice, compared to the
35 time at which it's implemented for informing and modifying
36 management, and so I think perhaps a compromise, to suit the needs
37 of both the ability to examine the precision and performance of
38 both versions of the SEDAR 72 base model, and also provide more
39 contemporary advice, may be to update the projections with the
40 most contemporary data possible.

41
42 For 2020 and 2021, use actual landings there, and then, for 2022,
43 and probably we won't be able to do anything specific for that,
44 but, I mean, our expected first year of management would be in
45 2023, and so perhaps taking the mean of the previous three years,
46 or something like that, that we customarily do, may not be
47 inappropriate, and so I'm half thinking out loud here, and so
48 certainly I'm willing to entertain other ideas.

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CHAIRMAN NANCE: Katie, to that point?

DR. SIEGFRIED: The reason I asked is because all of the discussions about how quickly this can get done have been based on that terminal year of being 2019, and, although I understand the consternation, it's just simply not possible, at the Science Center, to do all of those additional data sources through 2021 now, with our current schedule, and so, if that's not acceptable, I guess we would have to go back to the council and discuss, but we certainly can make the modifications in the projections that Ryan was alluding to, and we can use a mean of recent years to inform 2022, to produce projections starting in 2023, or even, if we have to do it for 2024, and I assume the advice has to go in for January of 2024, and so we can work with council staff on the assumptions for projections, or with whatever the SSC would recommend, but we just can't extend the terminal year.

CHAIRMAN NANCE: Okay. Thank you, Katie.

MR. RINDONE: So, Katie, for -- I mean, I think, for 2023 -- Carrie, can you come up here, because you're probably going to want to talk about this, too. For 2023, for the emergency rule, one of the things that we're trying to use for that is the first year of projections from the SEDAR 72 base model, and so, assuming that we're going to get something similar out of this run, we would have some value to use for 2023, which could then be used for the terminal year, and so part of me thinks that we should assume that, the implementation of that for the 2023 fishing year, just go ahead and assume that those landings are going to be what's realized, and then project forward there from 2024. Is what I'm saying making any sense? Carrie might want to expand on that.

CHAIRMAN NANCE: Carrie, please.

EXECUTIVE DIRECTOR CARRIE SIMMONS: I think we have a couple of different things going on here, and so we have a stock assessment with projections in MRIP-FES right now, and the council has received a letter that we have to develop and implement a rebuilding plan by January 1, 2024.

In the meantime, they want to try to quickly enact, through an emergency rule, management changes in January of 2023, and we're working on that right now, and so the assumption, right now, is that interim rule will be in catch advice in MRIP-FES. If we could in fact get this catch advice from the SSC in July, perhaps, if this approved by this body, then maybe those units would be in SRFS, which would be the same units that the rebuilding plan would

1 be done in, and so that would be more preferred, or, if it's not
2 changed from FES in 2023, then we would move forward with the
3 rebuilding plan in 2024, and so we do have some units issues here
4 that we're trying to work through, based on timing, and so did
5 that make sense at all?

6
7 **CHAIRMAN NANCE:** It would seem like, to keep the model the same
8 structure, in order to facilitate simply replacing the
9 recreational data to the Florida state data from the MRFSS data,
10 and I think that was the intent of what was going to happen, not
11 to extend things.

12
13 **DR. CALAY:** That was certainly our understanding when we discussed
14 this, and, just as a further point of caution, if we could update
15 that model, and get all the new indices, and that requires a review
16 process, to adopt that now as best available science, and it would
17 have an entirely different outcome and stock status, and so that
18 was never our intention, to update the model, and it was only to
19 replace the FES data with SRFS, if possible, as a strict
20 replacement, retaining the terminal year of 2019, and we could, as
21 Katie has already said, look into updating the projected catches
22 with realized catches, if they are available for the early
23 projection years.

24
25 **CHAIRMAN NANCE:** Carrie.

26
27 **EXECUTIVE DIRECTOR SIMMONS:** One more thing, and I think that would
28 be a good idea, because, Katie, do you know, offhand --
29 Historically, I think both sectors are down anywhere from 50 to 60
30 percent lower than the quotas, and is that right, for landings in
31 the last four or five years?

32
33 **DR. SIEGFRIED:** Yes, and we should be able to -- If it's in SRFS
34 units especially -- With all of the communication going on with
35 the transition team, I don't anticipate Luiz and his group not
36 getting anything to us, and, I mean, we should be able to use those
37 recent years of data.

38
39 There's a little bit of a caveat there as to what the reviewers
40 want to do with shore mode, but I don't anticipate that being hard
41 to gather either, but I do think it's important to use the recent
42 estimates in the interim years in the projections, and I just
43 really wanted to clarify here, because it sounded like there was
44 some confusion about the terminal year.

45
46 **CHAIRMAN NANCE:** It sounds like we've come to an agreement that
47 the terminal year should be the same as it was, 2019. Doug Gregory,
48 please.

1
2 **MR. GREGORY:** Thank you. I've got a couple of questions. One is
3 what's the timeline for this? It sounds like this is going to be
4 done pretty quickly, and how does this affect the assessment
5 schedule we have for all the other assessments in the Gulf?
6

7 **MR. RINDONE:** This is going to be done pretty quickly, and you
8 guys are going to be reviewing it at your July 7 and 8 SSC meeting,
9 and Shannon is doing this assessment at night, while she eats
10 dinner, and they're going to work on this, and they're going to
11 knock this out for you guys, with a lot of help from her team and
12 from Luiz's shop, and so we expect it to be available in advance
13 of the July SSC meeting for you guys to pick apart, along with the
14 calibration information that will come from the MRIP transition
15 team and FWC.
16

17 **MR. GREGORY:** Thank you. My hat is off to the Center for agreeing
18 to do this, I know, as busy as they are, and, relative to the terms
19 of reference, it seems to me that we should try to be more specific
20 with MSY and not leave the proxy wide open, but actually specify
21 F 30 percent and Fmax as alternative proxies, like we did in the
22 earlier terms of reference for SEDAR 72.
23

24 The other thing that seemed to be missing is, in SEDAR 72, we
25 looked at female only and male and female biomass, and I don't
26 know if that could be done again, and it's not critically
27 important, other than you get dramatically different results with
28 the two different approaches, and, at some point, that may be
29 helpful, but I think we clearly need to specify that the proxies
30 of F 30 percent and Fmax should be evaluated. Thank you.
31

32 **MR. RINDONE:** Doug, we can add that into the MSY proxies, but, as
33 far as the female-only or sexes combined, the approved SEDAR 72
34 base model that you guys reviewed is sexes combined, and so the
35 expectation is to continue forward using that sexes-combined
36 model.
37

38 **MR. GREGORY:** I agree.
39

40 **MR. RINDONE:** Not a female-only model.
41

42 **MR. GREGORY:** Right. Thank you.
43

44 **CHAIRMAN NANCE:** Shannon, please.
45

46 **DR. CALAY:** I just wanted to make one clarification, since there
47 was a question on the record, and so we will not change any of the
48 data delivery deadlines for the SEDAR process, and we have asked

1 for an additional two months for the analyst to prepare the
2 documentation for the next assessment that Lisa Ailloud is leading,
3 but there is no impact on the number of assessments that will be
4 conducted in the calendar, and so there is a small impact of this
5 request, and it's to gray snapper, I believe is the next assessment
6 that Lisa is conducting, but I could be wrong, and my staff will
7 tell me in a moment.

8
9 **CHAIRMAN NANCE:** Okay.

10
11 **MR. GREGORY:** Well, that's expected. Thank you, Shannon.

12
13 **DR. CALAY:** It's Spanish mackerel. Thank you.

14
15 **CHAIRMAN NANCE:** Thank you. Okay. It's good to have texting,
16 isn't it? Will, please.

17
18 **DR. PATTERSON:** Thank you, Mr. Chair. This issue about what the
19 terminal year of the data will be alleviates some of the earlier
20 question that I had about review of this, because SEDAR 72, with
21 MRIP-FES, was done through that time period, and, if it's simply
22 replacing the recreational landings, and I assume age comp, from
23 those landings, then that will minimize the amount of review that
24 the SSC would need to do, and, as Luiz indicated before, if this
25 calibration work would come before the SSC at this same meeting,
26 and we would review that, then we would have that opportunity to
27 review the calibration at the same time as we would be reviewing
28 its use in this assessment.

29
30 That's not ideal, but I don't think we should be in the habit of
31 trying to force things through review because of convenience. I
32 mean, we saw this issue most recently with the Great Red Snapper
33 Count, and there was enormous pressure to have those estimates
34 incorporated into some type of analysis that could be utilized to
35 update catch advice, and it was a different SSC at the time, but
36 members of the SSC recommended the Great Red Snapper Count go
37 through a CIE review and then an SSC review, and that's a pretty
38 substantial amount of review.

39
40 As a member of the Great Red Snapper Count team, I supported that
41 process, and I thought it was important to have that level of
42 review, and what we're talking about here is nothing close to that
43 extent, but I just think it's important for us to consider this
44 departure that has implications and can set precedent for other
45 departures of data time series used for other species, and I am
46 fully aware of the consternation and concern that folks have had
47 with MRIP and MRIP-FES and the amount of resources the various
48 Gulf states have put toward estimating the recreational landings

1 independent of that survey.

2
3 Because of that, I think we should just be very careful how we
4 handle this and not change our process and approach for expediency,
5 and clearly this is an important issue, but let's not get too far
6 ahead of ourselves, and I think that would be a bad precedent to
7 set.

8
9 **CHAIRMAN NANCE:** Thank you, Will, and I agree with that.
10 Absolutely. Luiz.

11
12 **DR. BARBIERI:** Thank you, Mr. Chairman, and, Will, I agree as well,
13 and I think those are valid points that you bring up there, and
14 just, again, just to put this on the record, this process of
15 integration of supplemental surveys is not new, and the perception
16 now, to some of us, is that all of this is new, but this has been
17 taking place for almost ten years now, and it's a coordinated
18 effort between the Gulf States Marine Fisheries Commission, the
19 Gulf states, and NOAA Fisheries, and, I mean, OST and the MRIP
20 program have been involved in that process from the very beginning.

21
22 This is a process that has been taking place, and there is a
23 transition team process, the MRIP transition team process, that
24 has been operating in the background, right, and handling all of
25 this, that culminated, this past February, with a transition team
26 workshop, a multiday workshop, and all of those surveys were
27 presented and reviewed and discussed by a team of independent
28 experts, and they were statistical survey experts, and they were
29 there for that purpose.

30
31 There's a report, and, actually, a draft of that report was
32 produced as a working paper for SEDAR 74, but that report is being
33 finalized, and it's going to be hopefully available to the SSC to
34 look at in July as well, and so, between those recommendations and
35 comments from reviewers and the rest of the transition team members
36 in that report, plus the actual review report from the independent
37 experts' review of the transition, I think we're going to have
38 enough documentation, but I understand Will's point, and I think
39 that's important to be clarified, so that everybody understands
40 how that's taking place.

41
42 **CHAIRMAN NANCE:** Thank you. Sean.

43
44 **DR. POWERS:** So just, on the calibration, what years are you all
45 using on the calibration part from MRIP to SRFS?

46
47 **DR. BARBIERI:** The years of overlap? Do you mean between --

48

1 **DR. POWERS:** What years are you basing the calibration, and so the
2 years of overlap between the two surveys?
3

4 **DR. BARBIERI:** Gosh, I don't -- Let me see if --
5

6 **DR. POWERS:** I guess my question is are you using 2020 and 2021 in
7 that calibration?
8

9 **DR. BARBIERI:** No, and so there is a standard set of years that
10 was selected, and Bev is probably -- Yes. May of 2015 to December
11 of 2019, and so all of this -- We actually had produced a
12 calibration report that documents all the formulations that were
13 used, right, and all of the R code and all of the outputs, and, I
14 mean, all of that was there, and there was a standard set of years
15 and months that were used for that purpose.
16

17 To be honest, that whole calibration report had been reviewed by
18 the MRIP consultants that are under contract for this review, but,
19 unfortunately, no review report was put together at that point,
20 right, and so we didn't really have any written documentation of
21 the review that took place and what their recommendations were,
22 and so we're having to revisit this now, but this new review -- We
23 were specific, in the terms of reference, to include a review
24 report, so we have that documentation, and so all of that is going
25 to be explicit, when you see that report.
26

27 **CHAIRMAN NANCE:** Thank you. Leann.
28

29 **MS. LEANN BOSARGE:** Thank you, Mr. Chairman, and so, while you all
30 were looking at this scope of work, I thought that I would bring
31 something up, and it's not necessarily specific to this scope of
32 work, but all of your assessments and your scope of work for those
33 going forward, and it was a discussion we had at the council
34 meeting, either the last meeting or the meeting before, and we've
35 had it a couple of times, and it relates to that presentation that
36 Skyler just gave you all for red grouper.
37

38 This is something that the council has been asking for for a couple
39 of different species, and the discussion we had was, okay, well,
40 going forward, we're going to want to see those historical OFLs
41 and ABCs, the revisions to those, the same way we've revised our
42 historical landings stream, and so what is the best way to
43 accomplish that, rather than us asking for one-offs here and there
44 and Shannon having to work during supper, like you were just
45 talking about.
46

47 The Science Center told us that the most efficient way to
48 accomplish that is, as we are going into an assessment where we

1 are making that first changeover to FES numbers, that would really
2 be the most efficient time to give you -- To try and also output
3 for you those historical OFLs and ABCs, taking into account those
4 FES numbers, and I think that's particularly important here in
5 this gag grouper.

6
7 We know that we're not going to have a rosy picture, regardless of
8 what landings stream we put into it, and so, as managers, we need
9 to understand, you know, what the drivers, the various drivers, of
10 a particular status may be, to truly understand how the stock
11 responded to our management in the past and what we may need to do
12 differently.

13
14 The question is, Ryan, or Dr. Nance, is that part of this scope of
15 work, where we'll get those revised OFLs and ABCs, in whichever
16 currency we're going to ultimately output this assessment in,
17 whether it be SRFs or FES?

18
19 **CHAIRMAN NANCE:** We have the big boss here, and so I'm going to
20 have Shannon --

21
22 **DR. CALAY:** Thank you, Jim, and so one thing that we have not
23 prepared for the council in the past, that might be helpful, and
24 does not take a great deal of time, is there may be a slight
25 misunderstanding, amongst some, about whether -- How we apply
26 allocations.

27
28 The historical data that we use for any stock assessment, we use
29 the actual landings, whatever they are, right, and we apply the
30 allocation in the projections, to basically see where the
31 allocation will occur, as we have specified. What we could do is
32 actually show you what the realized landings were for the rec
33 sector and the commercial sector during the historical period and
34 then what allocation was assumed for -- I think you're probably
35 speaking of red grouper, and, potentially, we could show you
36 essentially that summary for SEDAR 42 and for SEDAR 61, just to
37 give you an idea of what we entered into the stock assessment model
38 as the actualized landings during the historical period.

39
40 We could show that, and I have agreed, tentatively, with Tom to
41 provide that summary in time for the council meeting. It does not
42 require an analysis. It might be -- We can talk about it further
43 when we see the results, to see if that information is useful to
44 you.

45
46 **MS. BOSARGE:** Mr. Chairman, may I respond?

47
48 **CHAIRMAN NANCE:** Yes, you may.

1
2 **MS. BOSARGE:** That sounds very useful, Shannon, and I think maybe
3 I didn't explain it well though, and I'm actually looking for the
4 OFLs and ABCs that would have resulted in the past, that we would
5 have had in the past, so that we can see how -- Like take amberjack,
6 for example, and I don't want to digress too far here, but it seems
7 that it has never actually responded to all of our management
8 measures, and, therefore, we tried something different the last
9 time, and we actually changed that minimum size, thinking that
10 maybe we were killing too many babies for the last thirty years,
11 and I don't know, and so what we're getting now, as managers, is
12 we're getting this new historical stream of landings, right,
13 because of FES.

14
15 However, we're not able to track that against what the historical
16 OFL would have been, to see, okay, is that really the bulk of our
17 problem with some of these grouper species, or is it fact more the
18 red tide and the environmental issues, and we can't tell, and we're
19 going to go into a rebuilding plan, and that's a heck of a way to
20 enter a rebuilding plan, when you really don't even know what the
21 drivers of your problems are.

22
23 It does affect what you focus the bulk of our your management on,
24 and it may be that we really should be focused on the data
25 collection more, on the recreational side, so that we don't keep
26 recreating this wheel, and I don't know though, because I can't
27 see what the historic OFLs and ABCs would have been, and only the
28 large increase in recreational landings, but were we actually
29 exceeding the thresholds that is our basic tenet of management for
30 fisheries in this country, and so that's what I am trying to get
31 to, that picture.

32
33 **CHAIRMAN NANCE:** Shannon, to that point?

34
35 **DR. CALAY:** Yes, and I am very aware of the concerns, and I am
36 sympathetic. The Science Center has heard that request, and it's
37 simply beyond what we can do without cancelling stock assessments
38 out of the SEDAR schedule, and so we have prepared now about twelve
39 different council requests related to red grouper since SEDAR 61,
40 and, really, we have very little additional information to give at
41 this point, and so I think the best we're going to be able to do
42 is show you kind of what the actualized allocations have been
43 historically and what we assume, and, of course, allocation is a
44 council decision, and so we've already done a number of analyses
45 that show that the allocation does have an impact on the OFLs and
46 ABCs, but we simply cannot do additional workload related to
47 determining how things might have performed if we had made
48 different decisions without impacting the SEDAR calendar of

1 upcoming assessments.

2

3 **CHAIRMAN NANCE:** Thank you, Shannon. Thank you, Leann. Katie.

4

5 **DR. SIEGFRIED:** Thank you, Mr. Chair. I just have a clarifying
6 question about this run that Lisa will be undertaking, because of
7 some of the discussions that you all have had, and so especially
8 in light of Ms. Bosarge's comment, and so what we were thinking,
9 on our team, was that, you know, we're trying to make these
10 deadlines for managers to be able to potentially consider SRFs,
11 instead of FES, should the consultants deem that appropriate,
12 because we realize the concern and impact that the status of this
13 assessment has caused.

14

15 That's why we're sort of, you know, going as fast as we can to get
16 this done, but, in light of that, we thought that this request was
17 really a streamlined redo, and the TORs here show that, that
18 there's really just -- Replace private landings with the SRFs data,
19 document any changes, and then update all of the, you know,
20 important parameters and the status that comes out of the model,
21 as well as doing the projections.

22

23 My question is are all of the sensitivities expected, based on
24 kind of Will's comment and Luiz's comments about the review of
25 this model? There will certainly be diagnostics, and those were
26 needed in order to get all of the important quantities, and, like
27 I said, the projections will be completed, because that gives us
28 status, but are all of the sensitivity runs expected, and do you
29 anticipate reviewing those, because that actually adds quite a bit
30 more work to Lisa's plate than we were anticipating originally.

31

32 **CHAIRMAN NANCE:** Luiz, to that point?

33

34 **DR. BARBIERI:** Yes. Thank you, Mr. Chairman. Katie, I'm sorry,
35 and I may have said something that made it sound like I expected
36 more than just what you just described, and that's not the case.
37 I mean, because I had seen these TORs before, and my expectation
38 is that there would be just a substitution of that one data stream,
39 the private recreational-vessel-based recreational fisheries
40 statistics into the model, the model rerun, and then produce the
41 regular set of diagnostics that are produced within the SS
42 framework and that we usually see when reviewing stock assessments.
43 If I said something that made it sound different than that, Katie,
44 that wasn't my intent, and I'm onboard with the plan that is on
45 the table right now.

46

47 **CHAIRMAN NANCE:** That was my understanding, too. Shannon.

48

1 **DR. CALAY:** I did want to just put in one important note, which is
2 that this is possible because there is essentially one state
3 involved, and because most of the removals of red grouper are from
4 the State of Florida. As you add additional state partners, this
5 becomes a much more complicated request, and so I just wanted to
6 explain why we're willing to do this in the case, because it is
7 one state partner who needs to provide us with the time series.

8
9 **CHAIRMAN NANCE:** Luiz, to that point?

10
11 **DR. BARBIERI:** I'm sorry, but just quickly to that point, and I
12 think that all of this will become clear, and you're absolutely
13 right, Shannon, and this going to become clearer when the committee
14 sees the report that is coming out produced by the transition team,
15 and so the process, you know, the OST and the MRIP program has,
16 and it's national-level program, as all of us know, and there are
17 regional MRIP implementation teams that develop MRIP
18 implementation plans, right, and there is a process, and this can
19 happen anywhere.

20
21 The is a process for development and incorporation of supplemental,
22 or substitute, surveys that may be addressing portions of the
23 fishery that are perceived not to be as well covered by a general
24 survey like MRIP.

25
26 That transition process initially started with certification that
27 involved, of course, peer review of the methodology that was
28 developed by the survey, and then, after that process of peer
29 review, then you go into transition, which involves calibration,
30 and then all those parameters of the applicability of the specific
31 data series to specific assessments and situations is actually
32 covered in that report, and so we're going to see that, hopefully,
33 in July.

34
35 **CHAIRMAN NANCE:** Thank you. Doug.

36
37 **MR. GREGORY:** Thank you. I seem to remember that there was a
38 sensitivity run using the State of Florida data in SEDAR 61, and
39 that it was calibrated back in time, and I'm wondering what benefit
40 this is going to provide over that if this is not going to be done
41 in a manner that would let us decide, for future assessments, if
42 the State of Florida data could be substituted for the federal
43 data, for grouper species that are found almost exclusively off of
44 Florida, any species found off of Florida, and so I'm confused as
45 to what we're trying to accomplish here.

46
47 **CHAIRMAN NANCE:** I think you're looking -- Ryan.

1 **MR. RINDONE:** Thanks, Mr. Chair. Doug, the sensitivity run that
2 was conducted as part of SEDAR 72 used a linear historical
3 calibration, whereas this one that's being done between FWC and
4 the transition team is more attenuated, historically, with the
5 changes in trends and landings, and it also is going -- Like this
6 alternative run is going to be run with the full suite of model
7 diagnostics, whereas that sensitivity run was not.

8
9 **CHAIRMAN NANCE:** Shannon, to that point, also.

10
11 **DR. CALAY:** Yes. Thanks. I think, from our perspective, the more
12 important difference was that, you know, what we put together for
13 SEDAR 72 was provisional, and it was not reviewed, and we did it
14 just as a sensitivity run, and without any intention of using that
15 for a final model run, and so this, hopefully, will be a reviewed
16 and accepted product.

17
18 **CHAIRMAN NANCE:** Yes, and this will be a model run that we would
19 be able to get management advice from, and that's the intent.

20
21 **MR. RINDONE:** Right, and, like Dr. Patterson said, the intent is
22 to maintain the same commensurate level of review as we would with
23 an operational assessment that had otherwise gone through a similar
24 process.

25
26 **CHAIRMAN NANCE:** Thank you. Katie.

27
28 **DR. SIEGFRIED:** Shannon spoke to what I was going to say. Thank
29 you.

30
31 **CHAIRMAN NANCE:** You're welcome. Let's go ahead -- Ryan, let's
32 take us through the TORs, so that we can -- I think that's the
33 intent, is are there changes to this, or are we comfortable with
34 each of these, and I think each of us should have had the
35 opportunity to look at these, and so, if there are changes or those
36 types of things, let's entertain those now.

37
38 **MR. RINDONE:** Sure, and so, I mean, I see one, off the top, but,
39 under Number 1, update the approved base model, it should say "use
40 SRFS to inform private recreational landings data once historical
41 SRFS landings have been calibrated and SRFS has been certified by
42 OST". Then document any changes made, which is a typical TOR that
43 we've put in there, just in case there was any fidgeting or
44 fiddling that had to be done, and then the rest of it, from there,
45 is actually pretty straightforward, because the rest of it is
46 intended to remain the same.

47
48 **CHAIRMAN NANCE:** I think the rest of it is simply --

1
2 **MR. RINDONE:** I copied it and pasted it from the last time, yes.
3
4 **CHAIRMAN NANCE:** It's from SEDAR 71, and I think that's the intent
5 here, is that we're using the model, the SEDAR 71 model, and simply
6 replacing --
7
8 **MR. RINDONE:** It's 72.
9
10 **CHAIRMAN NANCE:** It's 72? Okay. I'm sorry.
11
12 **MR. RINDONE:** It's not like there's a lot of these, or anything
13 like that.
14
15 **CHAIRMAN NANCE:** SEDAR 72. Thank you.
16
17 **MR. RINDONE:** Jess, can you also highlight the first bullet there,
18 under "use the following status determination criteria", and then
19 that's where I will input what Doug had asked for, with
20 specifically mentioning the SSC's proposed proxy for MSY, which is
21 30 percent SPR, and then, also, the historical MSY proxy, which is
22 Fmax.
23
24 **CHAIRMAN NANCE:** Katie.
25
26 **DR. SIEGFRIED:** Thank you, Mr. Chair. I did have one other thing,
27 I guess, that Shannon hadn't brought up, on the fly. Last week,
28 when we were meeting in the recreational workgroup, and I was
29 talking to Bev Sauls, she didn't indicate any difference in the
30 historical SRFS landing calculating methodology, and is there
31 something new? Maybe Luiz could speak to that. I didn't think
32 there was.
33
34 **CHAIRMAN NANCE:** Yes, and Luiz will speak to that.
35
36 **DR. BARBIERI:** Thank you for that question, Katie, because that
37 clarification was -- There was no change, really, in the
38 calibration process, and this is the same calibration process that
39 had been applied before, and, again, I will repeat that this has
40 been peer reviewed by two consultants, under contract with OST and
41 the MRIP program, for this exact purpose.
42
43 Unfortunately, they did not produce a review report, right, and so
44 there was no documentation that that review of the calibration
45 methodology had actually taken place, and this is what generated
46 valid questions by the Science Center on whether this calibration
47 procedure had been actually accepted, peer reviewed and accepted,
48 and approved, and so this is why, now, this new review is basically

1 following terms of reference and generating a report, like Will
2 mentioned, and it will be important for us to have this in July,
3 and we can read through all of that.

4
5 **CHAIRMAN NANCE:** Thank you. Any other questions or concerns with
6 this for the SEDAR 72 update? I guess I can put "update" in there.
7 Luiz.

8
9 **DR. BARBIERI:** Just one more quick thing, just because I saw an
10 email now.

11
12 **CHAIRMAN NANCE:** You can't read emails during the meeting.

13
14 **DR. BARBIERI:** Well, this came from Dr. Simmons, and Dr. Simmons
15 actually has asked Jessica to distribute to the committee the
16 working paper for SEDAR 72 that actually described the calibration
17 methodology and provides all the necessary information there.

18
19 **CHAIRMAN NANCE:** Okay. Thank you. Thank you, Carrie. Seeing
20 none, Ryan, I think we're set on this one. Shannon, did you --

21
22 **MR. RINDONE:** Got it.

23
24 **DR. CALAY:** As an order of operations issue, one thing that became
25 very blatantly obvious to us, during the SEDAR Steering Committee
26 meeting on Monday, was that the Center is being asked to finalize
27 the assessment schedules in May two years prior to the assessments.
28 I am just wondering if -- Is this a 2025 assessment, Ryan? Are we
29 reviewing 2025 statements of work or 2024?

30
31 **MR. RINDONE:** Well, this is separate entirely from all of that.

32
33 **DR. CALAY:** This is separate entirely. All right.

34
35 **MR. RINDONE:** At this point, for -- The council would be producing
36 scopes of work for 2025, and we already submitted the ones for
37 2024.

38
39 **DR. CALAY:** Okay, and so my point really is that what we're
40 struggling with right now is to attempt to understand the workload
41 that will come from these additional services that we provide, and
42 so one of the things that has become clear, in our SEDAR Steering
43 Committee, is that the schedules that we're creating essentially
44 have no buffers, right, and so the additional workload is
45 challenging to schedule, and so I'm really bringing this up because
46 maybe there is a need to discuss how we can create time slots for
47 this additional workload within that framework of events that we
48 have to -- That we know we need to complete, so that we have enough

1 time to address unexpected workload, because, right now, we're
2 really stressed to try to jam into the calendar the unexpected
3 things that come up.

4
5 **CHAIRMAN NANCE:** So what you're saying is these years are all
6 locked in, as far as your time is --

7
8 **DR. CALAY:** We'll be locking calendars now by May, two years before
9 the stock assessments, and that's going to be the paradigm that we
10 have proposed, is that we would not only have an idea of which
11 stock assessment would take place, but we would also have
12 negotiated the project calendars, which leaves us very little time
13 to shoehorn in additional requests, and so there may be a need to
14 discuss how we can -- How we can accommodate time to support what
15 the council is --

16
17 **MR. RINDONE:** Just to pile onto that a little bit, and Shannon is
18 saying this in a very nice way, but the expectation should be like
19 don't expect this to be a regular thing. Like this is a special
20 circumstance.

21
22 The way that the schedule is set up right now, it is tight as a
23 drum, and so nothing gets inserted into there without having to
24 move something else, and so, in this particular instance, because
25 of the nature of it being a single state that produces a spatially-
26 comprehensive survey for a species for which better than 95 percent
27 of the private vessel landings occur under the sampling universe
28 of SRFS, it was not inappropriate to examine it in this way, and
29 also given the fact that SERO and the council are actively engaged
30 in the development of an emergency rule for a stock that is
31 depleted, and there is a very strong management impetus to act
32 upon this information as quickly as possible, using the best
33 information available, and the most current information available.

34
35 The combination of all of those forces kind of converged into what
36 you guys are going to review in July, and so this is something
37 that should absolutely be considered atypical.

38
39 **CHAIRMAN NANCE:** Yes, and I agree. It's one of those things, and
40 this is -- I appreciate the Center being able to accomplish this,
41 and I think it's being able to accomplish it because of the
42 constraints we've put into the TORs. With that, let's go ahead
43 and break for lunch. We'll come back at 1:00, and we'll take care
44 of our last agenda item, the discussion of goliath grouper.

45
46 (Whereupon, the meeting recessed for lunch on May 11, 2022.)

47
48 - - -

1
2 May 11, 2022
3

4 WEDNESDAY AFTERNOON SESSION
5

6 - - -
7

8 The Meeting of the Gulf of Mexico Fishery Management Council
9 Standing and Special Reef Fish, Special Socioeconomic & Special
10 Shrimp Scientific and Statistical Committees reconvened on
11 Wednesday afternoon, May 11, 2022, and was called to order by
12 Chairman Jim Nance.
13

14 **CHAIRMAN NANCE:** It looks like we're getting ready to go ahead and
15 start, and so if everyone will come back. I am looking for Luiz.
16 We'll go ahead and start, and then I will send a posse to go find
17 Luiz. Go find him, Tom, and it's going to be a short discussion
18 without Luiz, and I will tell you that. Let's go ahead and, Ryan,
19 have the scope of work, please, for this next topic, which is
20 Agenda Item Number XI.
21

22 **DISCUSSION OF GOLIATH GROUPEL COUNCIL MOTION AND AVAILABLE DATA**
23

24 **MR. RINDONE:** Sure, and so I'm going to review the management
25 history and stock assessment history with you guys about goliath
26 grouper, and the impetus for this comes from the Gulf Council's
27 motion from its April 2022 meeting to request that the SSC
28 reconsider the OFL and ABC for goliath.
29

30 Dr. Barbieri is going to review some information provided by the
31 State of Florida concerning recent research the state's 2022
32 limited harvest program for goliath in state waters, and you guys
33 should evaluate the information presented and ask questions. In
34 particular, you guys should consider whether the overfishing
35 limit, which is currently equal to zero, should be maintained or
36 respecified and whether the acceptable biological catch should be
37 reconsidered, and I guess a little clarification on this, and it's
38 not to say that these numbers should necessarily be changed at
39 this meeting, but whether it is something that you would like to
40 explore.
41

42 **CHAIRMAN NANCE:** This agenda item is a little bit different,
43 because it looks like Ryan has got two hours, and I've got one
44 hour, for discussion. I'm just kidding.
45

46 **MR. RINDONE:** I am just trying to be generous.
47

48 **CHAIRMAN NANCE:** I'm just kidding you. Okay. Luiz.

1
2 **MR. RINDONE:** Mr. Chair, I'm actually going to go first, and I'm
3 going to talk about the management and assessment history, real
4 quick, and so Amendment 1 to the Reef Fish FMP, and this is all
5 information that you can pull off of our website, off the council
6 website, and so I'm just summarizing all this for you.

7
8 Amendment 1 to the Reef Fish FMP was implemented in 1990 and set
9 a fifty-inch total length minimum size limit on goliath, and
10 goliath, at this point, was not included as part of either the
11 shallow-water or deepwater grouper complexes or as part of the
12 aggregate grouper bag limit, and so the aggregate bag limit, at
13 the time, I think was five fish, and so it wasn't suggesting that
14 you could keep five goliath.

15
16 Now, later, in 1990, Amendment 2 came along, and it prohibited the
17 harvest of goliath entirely in federal waters, in response to
18 indications that the stock's biomass was severely depleted. After
19 SEDAR 6 got underway, Amendment 18B was started, and this included
20 a rebuilding plan for goliath, and it also had talked about Nassau
21 grouper, which was ultimately excluded from the FMP, but the
22 development of Amendment 18B was predicated on the completion and
23 use for management of the results from SEDAR 6, and it would have
24 set a total allowable catch, minimum stock size threshold, and
25 maximum fishing mortality threshold for the goliath stock.

26
27 When the assessment was not accepted for use in management, the
28 development of Amendment 18B was stopped, and the other items that
29 were in it, that pertained to other species, were shoveled out and
30 dealt with separately.

31
32 Successive SEDAR assessments on goliath, like SEDAR 23 and SEDAR
33 47, have also not been accepted for informing fisheries management,
34 for a variety of reasons. Goliath is one of those species that we
35 think about first, along with red drum, when we think about the
36 effects of closing harvest entirely and the effects that that can
37 have on some of the data that are collected through fishery-
38 dependent veins, like being able to get age and length compositions
39 from some of those samples, and discards and things like that.
40 When you close the fishery entirely, you no longer collect any of
41 those data, and that's been the situation with goliath now since
42 1990, and so that is where we are, Dr. Barbieri.

43
44 **CHAIRMAN NANCE:** Thank you, Ryan. Luiz, please.

45
46 **DR. BARBIERI:** Thank you, Mr. Chairman, and, Ryan, thank you for
47 that introduction, thorough introduction, because I think, you
48 know, providing this background is really relevant to this, and

1 so, just restating some of the main points that Ryan covered here,
2 this issue really originated because, this past March, the FWC,
3 the FLorida Fish and Wildlife Conservation Commission, or the
4 Florida state agency for fish and wildlife, approved this limited,
5 very highly-regulated harvest for goliath grouper, which has a lot
6 of parameters that I want to quickly review with you, but just a
7 general introduction first.

8
9 The fact that we have not been able to complete, successfully, a
10 stock assessment for goliath grouper, and that we had, perhaps, as
11 a result of this failure, set OFL, the overfishing limit, equal to
12 zero, and the ABC equal to zero, and this creates a number of
13 regulatory and administrative problems, right, because, when you
14 have an OFL set equal to zero, and you have some level of harvest
15 throughout the range that's covered by the management plan, even
16 if it's in state waters, that technically really represents that
17 an overfishing action is happening, right, for the stock.

18
19 FWC leadership discussed this with NOAA Fisheries, the Regional
20 Office, and has been in that discussion for a while, and SERO
21 clarified that, because this fishery is limited to state waters,
22 it really is beyond the federal jurisdiction, formally, right, but
23 encouraged the agency to approach the councils and its SSCs to
24 sort of revisit and ask that it revisit these recommendations for
25 OFL and ABC, to avoid some of these administrative and regulatory
26 problems that are coming up.

27
28 That's basically, you know, the process that we are trying to go
29 through here, is discuss whether -- You know, revisit this
30 recommendation of OFL and ABC equal to zero, and, for comparison,
31 or for reference, here, the South Atlantic SSC has also considered
32 this situation in the past, because the stock is actually managed
33 jointly by both councils, and so the South Atlantic Council looked
34 at that issue as well, and the SSC had made a choice, at the time,
35 to declare the OFL, the overfishing limit, as unknown for all the
36 stocks that we unassessed, because it considered that we do not
37 have actually the scientific information to know, to determine,
38 where the overfishing limit is, and so, in some cases, it actually
39 recommended an ABC, based on average landings or some other
40 criteria, for those stocks, but always, in those situations,
41 consider the OFL as -- Determine the OFL as unknown.

42
43 That was actually discussed with NOAA General Counsel, and they
44 said that this is acceptable under the parameters of National
45 Standard Guideline 1, and so that's how that remains.

46
47 Here in the Gulf, the problem is a little harder, because we had
48 set the OFL equal to zero, and so that's one of the reasons to

1 have this discussion and see if we can kind of review that decision
2 and see if we have the information to make some different
3 recommendation at this point.

4
5 Just, real quickly, Mr. Chairman, we have a summary document, and
6 it's Attachment 11(d)(ii), that I had put together summarizing
7 what the parameters, basically, of this limited fishery are.

8
9 I am not going to read through this whole document, but I thought
10 that it was important for you to see that the proposal that was
11 approved by FWC is really based on a lot of constraints, and so
12 the harvest structure is a limited access fishery, and so there
13 will only be 200 harvest permits that are going to be issued, and
14 each one of those permits will have an associated physical tag,
15 where the fish is going to have to be tagged, for enforcement
16 purposes.

17
18 It's one fish per person per year, but there will be a lottery,
19 with an application fee, and then, for people who are drawn,
20 selected, by this random draw they will a \$150 fee, permit fee,
21 for the harvest, and \$500 for the non-residents, out-of-state
22 folks. The permits and tags are non-transferable, and, yes, one
23 harvest permit and one goliath grouper tag per person per year.
24 There is a lot of parameters that are associated with this to make
25 sure that this fishery is very constrained, and, now, scrolling
26 down a bit --

27
28 **CHAIRMAN NANCE:** This is purely in state waters, correct?

29
30 **DR. BARBIERI:** Yes, sir. It's purely in state waters. Mr. Mareska.

31
32 **MR. MARESKA:** Thanks, Luiz. Is there any assurance of spatial
33 distribution of those samples, or is there a chance that a lot of
34 the samples could come from a consolidated area?

35
36 **DR. BARBIERI:** Well, let me go -- Because I think a lot of these
37 questions get answered as we go through this. There are some post-
38 harvest reporting requirements, right, that are associated with
39 this harvest as well, and then the harvest slot that was selected
40 is twenty-four to thirty-six inches, and so only 200 fish within
41 that twenty-four to thirty-six, and it's structured to protect the
42 larger, older goliath grouper and not disrupt the spawning
43 potential and rebuilding of the population age structure, right,
44 and so we know that the stock, over time, has made progress, from
45 the time that the fishery was closed, about thirty-two years ago,
46 but we also understand that there is a need still to conserve and
47 allow the older ages to start rebuilding, right, the age structure
48 of the population, and so the age composition still doesn't show

1 the proportion of older ages that one would like to see.

2
3 This harvest strategy is based on basically juveniles, right,
4 because they reach sexual maturity around that size of thirty-six
5 inches, and they are actually harvesting before they reach sexual
6 maturity, and keeping that number low, and you can see that graph
7 there on the screen of how index abundance, the abundance of
8 juveniles, from Everglades National Park, their angler survey, is
9 actually -- It has shown quite a bit of progress, increased
10 improvement, over time.

11
12 It has decreased, as a result of some environmental events, and,
13 specifically, there was a very harsh winter in 2010 that impacted
14 a lot of stocks in south Florida that are susceptible to that cold-
15 event mortality, and goliath grouper was one of them, and you can
16 see that right there on that index over time, but, since then,
17 since about 2017 or 2018, you can see that the Everglades National
18 Park survey seems to have bounced back up, and that the abundance
19 of juveniles inshore seems to be trending upwards again.

20
21 Then, finally, scrolling down to the harvest season and area,
22 they're set to protect goliath grouper spawning and prevent harvest
23 of fish from spawning aggregations and from areas known to support
24 heavy dive ecotourism, and so the dive industry has been very
25 concerned with potential fishery impacts on this stock, because
26 they take advantage of ecotourist trips, dive trips, at the
27 international and national level trips, that is a major source of
28 economic income to that sector.

29
30 This proposal included protection of goliath in those areas, as
31 well as the areas that are considered to be, you know, mapped
32 spawning aggregation sites for goliath. Now, John, to your
33 question, in terms of the distribution of the tags, so they didn't
34 all come from the same place, I actually don't know the detailed
35 answer to that question, in terms of distribution of 100 for the
36 Gulf and 100 for the Atlantic.

37
38 I know the Everglades National Park specifically has worked with
39 FWC and requested that this harvest be limited to only fifty fish
40 within the park, which, as you know, is right there in south
41 Florida, right, and so I don't think that there are any constraints
42 to the distribution of the tags in other areas of Florida, with
43 the exception that you have a major closure, and the harvest area
44 excludes state waters from Martin County in east-central Florida,
45 pretty much, through the Atlantic coast, all the way through the
46 Dry Tortugas National Park, and so a major area that's now
47 considered to be holding individuals in spawning condition is
48 closed, and harvest from those areas is not going to be considered.

1
2 **SSC MEMBER:** (The comment is not audible on the recording.)
3

4 **DR. BARBIERI:** Well, their abundance has increased up and down the
5 coast, over time, as the stock recovered and their distributional
6 range has expanded a bit, and, now, the center of abundance, in
7 terms of adults and juveniles, seems to be in southwest Florida,
8 and this is where you find the highest numbers of individuals, and
9 the highest biomass, but there are areas, and the area in southeast
10 Florida, that large area from Palm Beach all the way down into the
11 Keys, where large individuals have been known to aggregate to spawn
12 and form predictable, in time and space, spawning aggregations,
13 and so this would prevent those fish from being targeted.
14

15 **CHAIRMAN NANCE:** Jason, I think you had a question.
16

17 **MR. ADRIANCE:** Thanks. Luiz, on your MRIP catch rates graph, how
18 are you getting those in the recent years, where the fishery has
19 been closed, and is that reported discards, or interactions?
20

21 **DR. BARBIERI:** It's basically reported discards, which, by the
22 way, leads into this issue that, you know, all the data sources
23 for this fishery are highly uncertain, right, because the fishery
24 has been closed for so long, and we've had these three attempts,
25 as Ryan mentioned, to conduct a stock assessment, and so two things
26 there are we don't have the data series in place to conduct a
27 quantitative stock assessment for goliath grouper, number one.
28

29 Number two, actually, their biology, ecology, and population
30 dynamics make it really not suitable for what we consider typical
31 stock assessments, in terms of how you focus on yield, because,
32 you know, of their biology, special biological characteristics.
33

34 **CHAIRMAN NANCE:** Rich.
35

36 **DR. WOODWARD:** I am curious, and so you mentioned that they're
37 going to be taking a sample, a biological sample, from the fish,
38 and how are you maximizing the value of this tournament, if you
39 would like, to gather data and information about the stock? I
40 mean, it seems like an opportunity, and is there spatially-explicit
41 identification of where the catch is, how long it took them to
42 find the fish, and, I mean, it seems like there could be a number
43 of opportunities here.
44

45 **DR. BARBIERI:** Right, and a lot of that information is being
46 collected as part of this, you know, data reporting requirement
47 associated with the harvest, but a biological sample as well, and,
48 I mean, the people who receive the tag are going to also receive

1 a kit for providing tissue samples that are going to be used for
2 genetic analysis of the stock, and so, parallel to this, FWC and
3 FWRI has been conducting a number of studies that have to do with
4 telemetry and ecology and connectivity of goliath grouper, and, in
5 parallel to this as well, another one that is trying to focus on
6 collecting genetic samples, tissue samples, for genetic analysis
7 that potentially can be used for development of close-kin mark-
8 recapture assessment of population size, at least in terms of the
9 magnitude of scale of that population.

10
11 **CHAIRMAN NANCE:** Thank you. Trevor.

12
13 **MR. MONCRIEF:** Thanks for all the information on this subject, and
14 just a side comment that that permit fee seems a fair amount steep
15 for one fish, but that's not for us to discuss here. I will say,
16 for this group, and for essentially what we're charged with doing,
17 I think going down the road of looking into this further is a
18 worthwhile exercise.

19
20 I have never seen, or heard, an answer of what it takes to reopen
21 a federal fishery once it's closed, and I think, at times, it might
22 be worthwhile to kind of go down this exercise, just to see what
23 we can derive and see what kind of answers we get, because we don't
24 know what's going to be coming in the future, and it might help us
25 kind of plan for whatever happens in any of our species, and so
26 that's my piece about it.

27
28 **CHAIRMAN NANCE:** Thank you, Trevor. To that point, Luiz?

29
30 **DR. BARBIERI:** Just briefly to that point, Mr. Chairman, and, yes,
31 Trevor, and, actually, since this same motion was made at the South
32 Atlantic Council, and this issue was discussed last month by the
33 South Atlantic SSC, they are using this opportunity just exactly
34 how you described it, to look not just at, you know, the current
35 catch level recommendations for goliath grouper, but for other
36 species, and, in that case, they have speckled hind and warsaw
37 grouper there that have been closed for almost as long, and they
38 don't know really how to get out of that situation, and there may
39 not be a way for them to get out of that situation, but the SSC
40 felt that it would be worth the effort to put together a working
41 group that's going to be trying to discuss this issue, right, and
42 I think it would be good for us to actually work with them, in
43 that sense, and try to kind of put our heads together and see what
44 possible scenarios could be considered, going forward.

45
46 **CHAIRMAN NANCE:** Okay. Trevor, to that point?

47
48 **MR. MONCRIEF:** So, given that's the case, what's the possibility

1 of having a joint working group to cover that subject, so we're
2 not going down two parallel tracks?

3
4 **DR. BARBIERI:** I don't mean to speak for the committee, in any
5 way, but I think that's an idea that is worth considering, Trevor,
6 right, that we could pursue and take advantage of each other's
7 expertise and knowledge and look at the situation, in terms of
8 data availability for over there versus over here, and actually
9 benefit from that.

10
11 **CHAIRMAN NANCE:** Thank you. Sean.

12
13 **DR. POWERS:** Luiz, you touched on it, but I'm just interested in
14 -- The first question, and I have a second one after that, is what
15 biological information are you going to get from a twenty-four to
16 thirty-six-inch slot that you couldn't get -- I mean, why harvest,
17 is I guess my question, is because you can take a fin clip, and I
18 guess you an age the spines, from what I hear, and what information
19 are you getting that you would want harvest for? Then the second
20 part of that question is, is this a state-fisheries-biologist-
21 driven request, or did you have some requests from fishermen?

22
23 **DR. BARBIERI:** I'm so glad that you asked that question, Sean,
24 because I should have made that clear in discussing this issue,
25 and the decision to harvest is exclusively a policy decision that
26 the commission made, and so this is not a fishery that was
27 developed for the purpose of data collection, right, and, in
28 discussing all of this with the commission along the way, as this
29 process developed, we explained to them that, for this size class
30 specifically, we don't have a whole lot of data needs that could
31 not be addressed some other way, and that, for 200 individuals a
32 year, I mean, it's simple enough for us get our biologists to go
33 and get that information, and so this was a policy decision by the
34 commission, feeling that, after thirty-two years of closure,
35 right, that it was worth considering a non-zero harvest for goliath
36 grouper, given certain parameters that take into account the
37 particular situation of this species, that you cannot have a
38 completely open-access fishery with no restrictions.

39
40 I can tell you, unequivocally, that this is the most regulated
41 fishery now in the State of Florida, and it's the only
42 recreational, you know private recreational, limited-access
43 fishery where you are required to buy the permit and have a harvest
44 tag, plus the slot size, the area closures, and all the other
45 constraints, and so this was really a decision by the commission
46 to open some level of fishery that they felt, if they received
47 some advice from us, from the Institute, that would say, okay,
48 here are the parameters where you can actually have some non-zero

1 harvest that is unlikely to impact the health and recovery of the
2 stock, and, when we gave them these parameters, they decided to
3 abide by them.

4

5 **CHAIRMAN NANCE:** Sean.

6

7 **DR. POWERS:** Thanks, and thanks for the candid answer, and so the
8 biological sampling is really you were presented with this, and
9 that you figured -- You sat down with your biologists and said, if
10 this is going to be done, what type of samples do we need, and, I
11 mean, not that we need, but what type of samples could we use.

12

13 **DR. BARBIERI:** Yes, and, like what Rich brought up earlier, and,
14 I mean, it's an opportunity, right? Now that you're going to have
15 all these people distributed all over, you can collect all sorts
16 of information, not just from the fish itself, but from the
17 fishermen, right, about them as well that will be valuable to
18 obtain.

19

20 **CHAIRMAN NANCE:** Jim.

21

22 **DR. TOLAN:** Thank you, Mr. Chair, and my comment was basically for
23 Trevor, and, having served on the Special Red Drum SSC for a dozen
24 years before I was here, I have asked that same question many,
25 many times, how do we get it back open again, because I think
26 everybody here can agree that, in the Gulf, the red drum has
27 probably been rebuilt, and so they're doing pretty well, but, as
28 far as getting it open, I don't know.

29

30 **CHAIRMAN NANCE:** Red drum, I mean, they probably collected more
31 samples of red drum over the years than any other fishery, and so
32 I'm not sure that --

33

34 **DR. TOLAN:** To that point, we tried, on SEDAR 47, to incorporate
35 red drum as a data-limited species, and we got nowhere with it,
36 because we didn't have the age and length compositions from the
37 Gulf side, and we had all the state data in the world that you
38 could deal with, but we just didn't have any Gulf data, and so
39 thank you.

40

41 **CHAIRMAN NANCE:** Doug Gregory.

42

43 **MR. GREGORY:** Thank you, sir, and thanks, Luiz. I've got two
44 questions, and the first one you can answer later, and this is, is
45 the state -- Are you guys developing a research plan for this
46 species, going forward? A more specific question is, with the
47 twenty-four to thirty-six-inch sampling, the assumption, I guess,
48 is most of them are juveniles and will stay in state waters, but

1 they could go into federal waters, and is there anything here
2 limiting the fishermen from fishing in federal waters?

3
4 **DR. BARBIERI:** Yes. Legally, yes, and, now, I did not go into
5 those details, Doug, but we have the goliath grouper notice of
6 change and the rule language, the explicit rule language that FWC
7 will be adopting, as part of the background information there, and
8 that 11(d)(iii) and (iv), Numbers 3 and 4, are the documents that
9 describe the parameters of this.

10
11 Because this is a fishery that's being managed by the State of
12 Florida, in Florida state waters, yes, people fishing for this
13 species in federal waters would be fishing illegal, and harvest
14 would be illegal, and so that should be explicit in the rule, that
15 this is limited to state waters. Does that answer your question,
16 Doug?

17
18 **MR. GREGORY:** Yes, on the second question, and the first question
19 was are you all developing a research plan, because it would be
20 nice if there was some way to take advantage of this opportunity
21 to collect data that could give us some insight as to the status
22 of the population. You said you were doing other surveys, and so
23 I suspect they have, or will be developing, a research plan, and
24 that would be good to see, going forward.

25
26 My last comment is, with the South Atlantic side, from Martin
27 County south to Key West and the Dry Tortugas being closed, I
28 suspect most, over 90 percent, of the harvest is going to come
29 from the Gulf waters, and I'm not that familiar with the Atlantic
30 side, but I don't think there is many goliath north of Martin
31 County, and so it's interesting, and I just hope we can take
32 advantage of this. We've been frustrated by this fishery since
33 the beginning, and it would be nice to get some insight as to the
34 relative health of this species. Thank you.

35
36 **DR. BARBIERI:** If I may address that, Mr. Chairman, and, yes, Doug,
37 and so, irrespective of this harvest, we have had, at the
38 Institute, and you may remember Bob Ellis, a former Gulf SSC member
39 here with us, and he now works at the Institute, and he's been
40 leading that effort and some research projects on both the Atlantic
41 and the Gulf that are focused on different life history stages,
42 juvenile inshore and movement connectivity, interactions with
43 other fisheries, acoustic telemetry for movement ecology, and
44 understanding their spawning habitat changes as the population
45 expands and recovers and how that could be impacting their choice
46 in distribution to different spawning sites, as well as this
47 directed effort to collect samples.

48

1 You may remember Mike Tringali, our molecular geneticist at the
2 lab, that has been working on this, and he's run, over the last I
3 would say three years or so, some preliminary samples, to kind of
4 evaluate what the possibility is to develop this close-kin mark-
5 recapture estimate, and we are moving forward with that.

6
7 As you know, the sample size requirements for that are pretty high,
8 right, and so that is going in parallel, and it's just a separate
9 sampling effort, but, yes, Doug, I mean, the idea is to learn more
10 about the beast, yes.

11
12 **MR. GREGORY:** Thank you very much.

13
14 **CHAIRMAN NANCE:** David.

15
16 **DR. GRIFFITH:** This is a different kind of question, but is it
17 mostly the dive ecotourism people who are pushing back against
18 this kind of harvest?

19
20 **DR. BARBIERI:** Yes, absolutely. Yes, they are, and so they are
21 concerned with the harvest, right, because they see that population
22 as something valuable to them for non-consumptive purposes, right,
23 and, I mean, it's something at the international level of
24 relevance, how people come to dive, you know, next to a fish that
25 is the size of VW Bug, right, and so it's something cool that
26 generates a lot of good revenue for them, and so that's one
27 concern, but they are also concerned, even beyond just this, and
28 we are trying to address this as the next step in this process,
29 but they are concerned about the catch-and-release mortality that
30 may be happening, because charter captains, and certainly they are
31 now specializing in goliath grouper trips that are non-harvest,
32 and it's just catch-and-release.

33
34 They are concerned that, if this is happening along the Palm Beach
35 area there, in some of those spawning aggregations that non-lethal
36 impacts on spawning may be happening, and so we are trying to
37 develop a study that looks into that specifically, for that reason,
38 but, yes, they have been very engaged, from the very beginning,
39 and they provided a lot of advice, in terms of area closures and
40 other parameters for harvest, and so we didn't want to do something
41 that was disruptive to them.

42
43 **CHAIRMAN NANCE:** A follow-up question, please?

44
45 **DR. GRIFFITH:** Well, if that is the case, I think that you would
46 do well to have a social scientist on this committee that you're
47 talking about forming, because we could maybe interact with the
48 diving community and find out what their concerns are, but also

1 what kind of information they could provide to you about the
2 species and what they're seeing and about habitat and things like
3 that. Thank you.

4
5 **DR. BARBIERI:** Absolutely, and we actually have hired, over the
6 last couple of years, Dr. Chelsea Crandall, who came on at Kai
7 Lorenzen's lab, right, and she just started at the Institute, at
8 the Center for Social Studies at the Institute, and she is spread
9 thin, because everybody wants a piece of Chelsea, right, because
10 we don't have that many on staff, but Chelsea has been engaged in
11 this process at this point, just kind of on an advisory role, but
12 the idea is that there will be opportunity for those kinds of
13 things that interact more with social scientists that can do more,
14 yes.

15
16 **CHAIRMAN NANCE:** Perfect. Will, please.

17
18 **DR. PATTERSON:** Thanks, Mr. Chair. Luiz, thanks for bringing all
19 of this information to us. I've been following this, in Florida,
20 for a little while and talking with folks in the Tallahassee area
21 about whether this might or might not happen.

22
23 I'm interested in this idea about the slot, and so it's my
24 understanding that the slot was put forward to protect larger,
25 older spawners, but, also, potentially because of mercury concerns
26 in bigger fish. I don't actually think the harvest slot is going
27 to minimize barotrauma, because the larger fish in a given species
28 tend to be more susceptible to barotrauma, and so the biggest fish
29 caught here are going to be released, assuming that some fish
30 outside the upper slot are caught, and I imagine, for goliath,
31 that's pretty likely.

32
33 Not that they're not already caught and discarded in the catch-
34 and-release fishery, but I'm not sure that that harvest slot will
35 actually minimize barotrauma, but my question has to do with the
36 samples you plan to take, and, obviously, you've kind of gone
37 through the list of various projects that folks at the Institute
38 are interested in, but, given the uniqueness of this opportunity,
39 I'm wondering if FWC has a plan to form a group that, you know,
40 folks, scientists, can interact with the leadership there and
41 propose samples to be collected from these fish.

42
43 This fishery is still about a year away, and it just seems like
44 this is -- These 200 fish are going to be precious, and I'm
45 wondering if, you know, maybe there is some analyses or data
46 collection possibilities out there that just the in-house folks
47 may not have yet considered and that forming a group of scientists,
48 or just having a way for scientists to interact, to try to

1 potentially collect samples, might enhance the value of these fish
2 beyond things that have been considered to this point.

3
4 **DR. BARBIERI:** May I? Thank you, Mr. Chairman. Yes, Will, and,
5 I mean, as you know, I mean, we're always open to starting those
6 types of collaborative projects and partnerships, and I think that
7 your idea is spot-on. Maximizing the type of scientific products
8 that we get out of these fish is a plus, right, and why not, and
9 so we don't have, at this point, anything formally put together to
10 that effect, but I will be more than glad to get together with
11 you, and others, at any time and, you know, expand the circle a
12 little bit of some of the other folks, and Bob Ellis and others,
13 and Phil Stephens and others, have been involved in this data
14 collection process, and we can have that discussion, Will.
15 Absolutely.

16
17 **DR. PATTERSON:** Thanks, Luiz.

18
19 **CHAIRMAN NANCE:** Trevor.

20
21 **MR. MONCRIEF:** I think Jim is kind of reading my mind on the
22 direction that I was talking about, and I do appreciate the
23 conversation of treating these fish as precious and trying to get
24 as much information as possible, and I think that's pertinent. I
25 am just kind of going to go back to these questions that have been
26 raised for a couple of decades at this point.

27
28 Both sides, I think as a group, or at least on my end, we would be
29 remiss not to take advantage of the momentum that this program is
30 going to have, and what the South Atlantic is already doing, to
31 try to come up with some sort of options, or at least, you know,
32 provide a pathway to let the council make these decisions on if
33 they want to reopen a fishery or not.

34
35 **CHAIRMAN NANCE:** Thank you, Trevor. Sean.

36
37 **DR. POWERS:** Luiz, did FWC formulate any kind of biological opinion
38 or analysis when you all were presented with this? I am getting
39 at, exactly, if we were to set an OFL or ABC, is there any guidance
40 on where we should set that?

41
42 **DR. BARBIERI:** Yes, and we put together, and those can be made
43 available to folks, and we put together a white paper, of sorts,
44 that sort of describes what the main scientific issues here at-
45 hand are, right, but, because of the nature of this harvest, being
46 small and being so constrained, and the fact that we don't really
47 have any real quantitative information, or otherwise, to really
48 come up with some estimate of what would be, right, a viable level

1 of harvest, and, actually, I think, as part of your packages, or
2 it should have been there, and, if it's not, I can distribute it,
3 but Clay Porch and I wrote a white paper.

4
5 This was maybe fifteen years ago, and it considered a number of,
6 you know, parameters, at the time, that could be used to generate
7 some harvest, you know what would be a sustainable harvest, given
8 certain parameters there.

9
10 In this case here, that was not possible, and the idea here was
11 different, and it was really to say, okay, use your expert judgment
12 to make some decisions, knowing fisheries biology, ecology, and
13 population dynamics, and what would be the right call, in terms of
14 keeping the numbers low, small, right, and keeping the size range
15 within that phase of life where natural mortality is already, you
16 know, likely to remove a large number of individuals, right, before
17 they reach sexual maturity and protecting the areas where they
18 could be aggregating to spawn. Those were the main criteria that
19 were used to kind of generate that number, and even go beyond that,
20 and it was more like an expert judgement call.

21
22 **DR. POWERS:** I mean, that's what I was getting at, and why 200? I
23 mean, why not 300, or why not 100, but, essentially, at some point,
24 you didn't have enough data, and it was expert judgement.

25
26 **DR. BARBIERI:** Right.

27
28 **DR. POWERS:** Okay.

29
30 **CHAIRMAN NANCE:** Cynthia, please.

31
32 **DR. GRACE-MCCASKEY:** Thank you. I am just curious, and, given
33 that this would be harvest that's allowable in state waters, as
34 opposed to federal waters, and, yes, of course, there will be
35 different rules and different laws, but what is to actually say -
36 - How do we know that fishers aren't going to fish in federal
37 waters and say that they caught it in state waters? Is that a
38 concern of the commission, or has that been taken into
39 consideration?

40
41 **DR. BARBIERI:** That's a good question that I am not very well
42 prepared to answer, Cindy, because this is more of like a
43 management and enforcement area, right, that goes beyond my
44 expertise, really, but, obviously, the idea is that law enforcement
45 is going to be vigilant to this, right, and that, when you have
46 something that's this constrained, that there will be assurances
47 that the areas that are closed are closed.

48

1 It's difficult with, I guess, any fishery that we have, right, to
2 really enforce that fish are caught in state versus federal waters,
3 but we do have, you know, a very large -- I guess it's the largest
4 law enforcement force in the country, really, in Florida, for
5 marine law enforcement, and we have partnership with the feds,
6 with the Coast Guard and with the NMFS Law Enforcement Office.

7
8 **CHAIRMAN NANCE:** I think Texas is bigger, but --

9
10 **DR. BARBIERI:** Is that right? You tell me, Jim.

11
12 **CHAIRMAN NANCE:** I think Trevor may be able to --

13
14 **DR. BARBIERI:** But I think this is a valid point, Cindy, but I
15 just don't know, really, how those things are handled, from a law
16 enforcement perspective. Honestly, I just don't.

17
18 **CHAIRMAN NANCE:** Trevor, to that point?

19
20 **MR. MONCRIEF:** Not to speak for the State of Florida, by any means,
21 but it's kind of going to go under the same direction as all of
22 your fisheries, like Luiz mentioned, and that law is essentially
23 possession, and, if you are in possession of a species that is not
24 allowed for harvest, in an area that you cannot harvest that
25 species, then they will be ticketed.

26
27 The thought of individuals capturing those fish and going to
28 federal waters to fish, they will be cited for possession of that
29 fish in federal waters. If they catch it in federal waters, and
30 are in possession of it, then they'll be cited for it, and so that
31 law will be consistent, I'm pretty sure, across-the-board.

32
33 **CHAIRMAN NANCE:** Red drum, in each of the states, is the same type
34 of deal, and they're only allowed to be caught in state waters.
35 Ryan.

36
37 **MR. RINDONE:** From a federal perspective, we have transit
38 provisions for certain species, and so like an example is king
39 mackerel, and you're allowed to transit through a zone that is
40 closed to harvest with king mackerel that were harvested in a zone
41 that is open to harvest, but you cannot stop, and there are no
42 excuses of, oh, we thought we saw something floating in the water,
43 and we went to go pick it up, or something like that.

44
45 It's like you may not stop, and you must be transiting with all
46 gear stowed, that kind of thing, and, in this case, with what's
47 been described for the State of Florida, you can't even do that.
48 If you go fish -- If you get a harvest tag for goliath, and you go

1 fishing for that fish, and you catch and tag that fish -- At that
2 point, it probably would be in your best interest to return to the
3 dock immediately, before doing anything else or suffering engine
4 trouble and floating into federal waters or a closed area or
5 anything like that.

6
7 **CHAIRMAN NANCE:** David, please.

8
9 **DR. CHAGARIS:** I have a couple of comments and a question. I'm
10 not as concerned about the compliance issue, because, I mean, the
11 people that are going to go out and get these tags, they're
12 investing in going out and catching this fish, and we can expect
13 that they're going to be pretty educated on the rules and are
14 probably going to abide by them.

15
16 The other comment I had was that a lot of the language of this
17 sounds like -- Sean mentioned reference points and when we might
18 be able to get those on the books, but a lot of the language in
19 this, with the slot limit, is sort of implying that we might want
20 to think about an escapement-based approach, like we do with red
21 drum.

22
23 I don't know, and it might take some time to get the data and the
24 models to be able to do that, but that's probably what we want to
25 think about, if state waters are going to continue to be open, but
26 federal waters are not, to protect the spawning stock, but the
27 question I have for you is what sort of timeline for revisiting
28 this 200-fish policy -- Like when are they going to revisit that,
29 and do you get the sense that, you know, if it goes well, that
30 they're going to expand that, or they just want to hold this number
31 for an extended period of time?

32
33 **DR. BARBIERI:** Well, let me start with the last question, and I
34 haven't heard anything about expansion of this beyond what is on
35 the table right now, and, of course, it's impossible to predict
36 the future, right, and anything is possible, but I can tell you
37 that, at this point, I haven't heard anything to that effect,
38 right, that this is basically what it is, and I don't know, and
39 perhaps one of my colleagues from the management side of the house
40 that might be on the webinar could jump in, if you allow them, Mr.
41 Chairman, to answer that question about the timeline for this.

42
43 My understanding is that this rule is in place, and this rule has
44 no expiration date at this point, right, and that this is going to
45 be there until the commission decides to change it, and this may
46 not be the case, but, you know, usually those things are not set
47 -- Unless you're setting up an experimental fishery, an EFP kind
48 of thing, and mostly it doesn't have an expiration date, and I

1 didn't hear anything explicitly from the commissioners, when this
2 presentation was made during the final rule approval, that this
3 was the case, and so I imagine that this is going to stay until
4 they decide to change it, and I haven't heard anything about
5 changing the parameters that are applied here.

6
7 **CHAIRMAN NANCE:** Thank you. Will.

8
9 **DR. PATTERSON:** I just had the same question that Dave asked, about
10 what criteria will be used to evaluate the success, issues,
11 potential harm of the fishery, and how that will be worked into
12 it, and so thanks, Luiz.

13
14 **CHAIRMAN NANCE:** C.J.

15
16 **MR. C.J. SWEETMAN:** Hi, everyone. C.J. Sweetman here with FWC.
17 As of right now, there are no plans to further revisit this, and
18 this was just put into place in March, and so there are no plans
19 to expand this, and, currently, we're just going to wait and see
20 how this goes and evaluate from there, but, at the current moment,
21 there are no plans to expand upon this rule.

22
23 **CHAIRMAN NANCE:** Thank you.

24
25 **DR. BARBIERI:** Thank you, C.J.

26
27 **CHAIRMAN NANCE:** Rich.

28
29 **DR. WOODWARD:** I just wanted to point out that there is an
30 opportunity here to also gather some economic data. You could
31 find out how valuable this fishery is. I mean, if you think about
32 this, and compare it to trophy hunting for lions in Africa, and
33 they sometimes sell those permits for \$100,000, and that suggests
34 -- I mean, we could find out the value of this fish, and, even if
35 the biology can't sustain more than ten, that might still result
36 in a substantial income and value.

37
38 **DR. BARBIERI:** Just to that point, Mr. Chairman, and thank you.
39 Yes, Rich, and, actually, there has been a study, I believe out of
40 the University of Miami, a PhD, I think, project, that was
41 completed several years back, that was looking at this issue
42 exactly, about the willingness to pay for a limited harvest tag,
43 or permit, for goliath, and they considered a whole number of
44 different scenarios, and so that work has started, and perhaps
45 this is an opportunity to expand on that.

46
47 **CHAIRMAN NANCE:** Any other questions from the SSC on this issue?
48 Trevor.

1
2 **MR. MONCRIEF:** I submitted a motion to the email, and I wanted to
3 put it up and get it seconded for discussion, but I think it kind
4 of keeps us moving on this item. It was written in somewhat haste,
5 and so forgive me if there's issues with it, but, essentially,
6 this goes to kind of what we had talked about, and, since the
7 momentum is already there on the South Atlantic side, just to
8 consider maybe adding a couple of Gulf representatives there, to
9 have something more cooperative and sort of moving in a tandem
10 path.

11
12 **CHAIRMAN NANCE:** Absolutely. Let me read the motion. This is the
13 motion by Trevor. **For council staff to consider adding**
14 **representatives from the Gulf SSC to the South Atlantic SSC**
15 **workgroup, in an effort to develop a cooperative workgroup focused**
16 **on establishing OFLs and ABCs for goliath grouper and other**
17 **federally-managed species currently closed to harvest.** Do I have
18 a second for that motion? Is that Paul? Thank you. Is there
19 discussion? Jason.

20
21 **MR. ADRIANCE:** Thanks. This is for Trevor, and so, earlier, you
22 were talking about the process, and is this more aimed at getting
23 at that process or actually establishing OFLs and ABCs, like it
24 mentions, or would it be more towards the mechanism for opening
25 those fisheries and getting to those? I don't know if that's
26 nitpicking.

27
28 **MR. MONCRIEF:** Yes, and, I mean, that's kind of the focus here, is
29 getting the mechanics and the pathway behind it, and so, should
30 the issue ever come up, there's a defined pathway to be able to
31 build toward, prior to that consideration, and everyone is not
32 sitting there shellshocked, considering what do we have, what can
33 we get, what do we need to get, and what is sufficient. If there's
34 a way to alter that motion to more explicitly state that --

35
36 **CHAIRMAN NANCE:** I don't know if would be something like "focused
37 on mechanics", or something, because you're not going to be
38 establishing OFLs and ABCs in this workgroup, but you're looking
39 at how that can be done, and Ryan is a good wordsmith.

40
41 **MR. RINDONE:** First, let's change "for council staff" to "for the
42 council". For as much as I tell you guys what I would like you to
43 do, ultimately, it comes from the council.

44
45 **MR. MONCRIEF:** I just figured it was you.

46
47 **MR. RINDONE:** So "for the council to consider adding", blah, blah,
48 **blah, and perhaps "focused on establishing a method for evaluating**

1 catch limits for species currently closed to harvest", or you could
2 leave "federally-managed" in, and that's probably appropriate, and
3 so "for federally-managed species currently closed to harvest,
4 including Southeastern U.S. goliath grouper".
5

6 The reason, Trevor, why I changed so much of it is because, like
7 in the Gulf, rock hind and -- Is it warsaw and speckled hind in
8 the South Atlantic, and so like they're not closed in the Gulf,
9 but they are in the South Atlantic, and so there are some
10 disparities in the species that are closed that each council might
11 want to consider exploring, and this particular workgroup might
12 have the potential for the Gulf and the South Atlantic participants
13 in it to help advise one another's respective management councils
14 on how to approach things for different species, because the
15 circumstances and the data available may differ, and so leaving it
16 a little bit more open-ended, but adding that last "including
17 Southeastern U.S. goliath grouper" keeps it germane to this
18 discussion, but the bulk of it leaves it open-ended for whatever
19 species to which it might be useful.
20

21 **MR. MONCRIEF:** Yes, and I think --
22

23 **CHAIRMAN NANCE:** Trevor, are you okay with that change?
24

25 **MR. MONCRIEF:** Yes, I'm comfortable with the change. I think it's
26 -- To me, since they establish a workgroup, and they have more
27 species under consideration, they will be kind of driving it, while
28 we would be in the background providing information that we deem
29 necessary and kind of getting an established pathway.
30

31 **CHAIRMAN NANCE:** Thank you. Paul, are you okay with that change?
32 Okay. Thank you. Any other discussion on this item? Doug.
33

34 **MR. GREGORY:** This is I guess for Luiz, and I was just trying to
35 look at the South Atlantic document that is in our background
36 material, but it's two-hundred-and-some pages long, and what is
37 the specific charge? I am uncomfortable with this unless I know
38 what we're jumping into. They have a charge, or will have a
39 charge, on something to do with goliath grouper, and we should
40 know what that is before we ask to join them.
41

42 **CHAIRMAN NANCE:** Luiz, please.
43

44 **DR. BARBIERI:** Not to put Judd on the spot, but Judd Curtis, who
45 is the assigned SSC staff to the South Atlantic SSC, is on the
46 webinar, and he, just like Ryan did for us here this morning, he
47 introduced this issue to the South Atlantic SSC and guided that
48 discussion, or helped them guide that discussion, and so, Judd, if

1 I can put you on the spot here, and I know all of this is very
2 recent, and, at this point, it's really kind of trying to express
3 a desire to put together this workgroup, and I don't think that
4 all the details have been worked out, but, Judd, if you know more,
5 and can help us with this, that would be great.

6
7 **CHAIRMAN NANCE:** Judd, please.

8
9 **DR. JUDD CURTIS:** It's good to hear some familiar voices, and so,
10 to Doug's point, we had the same charge, as far as a council
11 motion, to have the SSC revisit the ABC equals zero for goliath
12 grouper. As Luiz mentioned, one difference here is the OFL for
13 the South Atlantic region is set as unknown, whereas, in the Gulf,
14 it's set to zero, and so that's one discrepancy as well that we
15 might need to work through.

16
17 As far as the workgroup is concerned, we have an unassessed stocks
18 workgroup that is already set up, and they were tasked with a
19 brainstorming of some new, and perhaps some nontraditional,
20 approaches to assessing goliath grouper and any other species with
21 an ABC equals zero, in this case for the South Atlantic speckled
22 hind and warsaw grouper.

23
24 There was a lot of discussion about, you know, turning this into
25 a potential joint workgroup with the Gulf, knowing that the same
26 motion was going to come down at the Gulf Council meeting a month
27 later, and so I appreciate this discussion, and I think this would
28 be very beneficial for both councils and both SSCs, to establish
29 this joint workgroup. Thank you.

30
31 **CHAIRMAN NANCE:** Thank you. I think that's very well -- That's
32 very good. Luiz.

33
34 **DR. BARBIERI:** Thank you so much, Judd, and that was really
35 helpful. I appreciate it.

36
37 **CHAIRMAN NANCE:** Doug, did that answer or address your question?

38
39 **MR. GREGORY:** Yes, it does, and part of my concern is I have been,
40 I guess, involved with goliath since the 1990s. I mean, I wrote
41 Amendment 1 and Amendment 2, and it was not easy. We didn't have
42 a whole lot of data, but it made sense to do the right thing,
43 because it was so easily harvested, and it's been frustrating to
44 have it closed for so long, but I just don't want it open to be
45 open, and I just want management to work.

46
47 I've been involved in so many of these workgroups and SEDARs and
48 stock assessments that really don't go anywhere, and so it would

1 be nice to think that this is a game-changer, but I had a question
2 for Luiz. Since we have an ABC of equal to zero, don't you --
3 Doesn't the State of Florida have to go get an experimental permit,
4 or some sort of permit, from National Marine Fisheries Service to
5 conduct this fishery?
6

7 **DR. BARBIERI:** No, Doug, not in state waters. This is the type of
8 conversation and communication that FWC Marine Fisheries
9 Management leadership, Jessica McCawley, has been having with the
10 Southeast Regional Office and Andy Strelcheck, and, in that
11 conversation, Andy was explicit about the fact that, despite all
12 the provisions of Magnuson, and the fact that the ABCs are really
13 supposed to be extended over the entire range of the stock, under
14 that management plan, that the federal government prefers not to
15 interfere with management in state waters, basically because of a
16 jurisdictional issue. The state, here, can actually conduct this
17 under its own jurisdiction, if it is in state waters exclusively.
18

19 **MR. GREGORY:** Thank you.
20

21 **CHAIRMAN NANCE:** Okay. Any other discussion on this motion? Judd.
22

23 **DR. CURTIS:** Thanks, Jim. Just kind of to Doug's point, a lot of
24 the discussion at the South Atlantic SSC centered around those
25 same concerns that you voiced, that the traditional stock
26 assessments for goliath were rejected, through the review panels
27 or SSC review, and so how do we get around that, when we don't
28 have, you know, any more recent catch time series or other things
29 that we can use to actually do a more typical stock status
30 determination, and so that's, again, part of the focus of this
31 workgroup, is to try to come up with a process to attack some of
32 these concerns, where you don't have a traditional stock assessment
33 process to develop ABCs. Thanks.
34

35 **CHAIRMAN NANCE:** Thank you. Any other discussion? Okay. Let me
36 read the motion, and then we'll go ahead and vote on it. **The**
37 **motion is for the council to consider adding representatives from**
38 **the Gulf SSC to the South Atlantic SSC workgroup in an effort to**
39 **develop a cooperative workgroup focused on establishing a method**
40 **for evaluating catch limits for federally-managed species**
41 **currently closed to harvest, including Southeastern U.S. goliath**
42 **grouper.** Let's go ahead and take a vote on this, Jessica.
43

44 **MS. MATOS:** Steven Scyphers.
45

46 **DR. SCYPHERS:** Yes.
47

48 **MS. MATOS:** Jim Nance.

1
2 **CHAIRMAN NANCE:** Yes.
3
4 **MS. MATOS:** David Griffith.
5
6 **DR. GRIFFITH:** (Dr. Griffith's response is not audible on the
7 recording.)
8
9 **MS. MATOS:** Luiz Barbieri.
10
11 **DR. BARBIERI:** Yes.
12
13 **MS. MATOS:** Michael Allen.
14
15 **DR. ALLEN:** Yes.
16
17 **MS. MATOS:** Cindy Grace-McCaskey.
18
19 **DR. GRACE-MCCASKEY:** Yes.
20
21 **MS. MATOS:** Peyton Cagle.
22
23 **MR. CAGLE:** Yes.
24
25 **MS. MATOS:** Jason Saucier.
26
27 **MR. SAUCIER:** Yes.
28
29 **MS. MATOS:** Donald Behringer.
30
31 **MR. BEHRINGER:** Yes.
32
33 **MS. MATOS:** Jason Adriance.
34
35 **MR. ADRIANCE:** Yes.
36
37 **MS. MATOS:** Harry Blanchet.
38
39 **MR. BLANCHET:** Yes.
40
41 **MS. MATOS:** Benny Gallaway.
42
43 **CHAIRMAN NANCE:** I think Benny is absent.
44
45 **MS. MATOS:** Okay. Paul Mickle.
46
47 **DR. MICKLE:** Yes.
48

1 **MS. MATOS:** Will Patterson.

2

3 **DR. PATTERSON:** Yes.

4

5 **MS. MATOS:** Richard Woodward.

6

7 **DR. WOODWARD:** Yes.

8

9 **MS. MATOS:** Jim Tolan.

10

11 **DR. TOLAN:** Yes.

12

13 **MS. MATOS:** Sean Powers.

14

15 **DR. POWERS:** Yes.

16

17 **MS. MATOS:** Trevor Moncrief.

18

19 **MR. MONCRIEF:** Yes.

20

21 **MS. MATOS:** Doug Gregory.

22

23 **MR. GREGORY:** Yes.

24

25 **MS. MATOS:** David Chagaris.

26

27 **DR. CHAGARIS:** Yes.

28

29 **MS. MATOS:** John Mareska.

30

31 **MR. MARESKA:** Yes.

32

33 **MS. MATOS:** Jack Isaacs.

34

35 **DR. ISAACS:** Yes.

36

37 **MS. MATOS:** Luke Fairbanks.

38

39 **DR. FAIRBANKS:** Yes.

40

41 **CHAIRMAN NANCE:** Okay. Thank you. We'll go ahead, and I think
42 that ends this discussion. I appreciate the discussion, and now
43 we'll move into Other Business. Matt, we had the Other Business,
44 which you mentioned at the beginning of our meeting.

45

46 **OTHER BUSINESS**

47

48 **DR. FREEMAN:** Sure, and thank you, Mr. Chair. At the April council

1 meeting, there was a motion to convey to the Science Center the
2 support of the formal inclusion of the appropriate SSC members,
3 council staff, and shrimp industry representatives, in the
4 development of the shrimp EDMs, or empirical dynamic models,
5 outside of formal SSC review and prior to the SEDAR research track.
6

7 If you may recall, there was a presentation on applying empirical
8 dynamic models to Gulf shrimp given to the SSC at its March
9 meeting, and then it was presented, later that month, to the Shrimp
10 AP, and so this motion actually originated from the Shrimp AP, and
11 it was something that the council then acted on, and so, in
12 relation to that, we are seeing if there are two to three
13 volunteers who we could submit those names, when we send a letter
14 to the Science Center.
15

16 **CHAIRMAN NANCE:** Do we have any volunteers that would like to
17 participate in this working group? I could participate, and, with
18 EDM, I'm not going to be able to help at all there. What I would
19 be able to at least, from a historical shrimp perspective, is be
20 able to give something, and I know that Dr. Gallaway said that he
21 would like to participate, also. Doug Gregory would like to, and
22 it looks like his name is there.
23

24 **MR. GREGORY:** I am not volunteering, Mr. Chair, but I have a
25 question.
26

27 **CHAIRMAN NANCE:** I thought you were just volunteering. You can't
28 ask questions in this part.
29

30 **MR. GREGORY:** No?
31

32 **CHAIRMAN NANCE:** Go ahead, Doug. I am just kidding you.
33

34 **MR. GREGORY:** Between you and Benny, you've got the shrimp
35 expertise, and is there anybody on the SSC who is familiar with or
36 has experience with empirical dynamic modeling?
37

38 **CHAIRMAN NANCE:** Yes.
39

40 **MR. GREGORY:** That would be very helpful.
41

42 **CHAIRMAN NANCE:** That would be, because I go in there, and I am
43 listening, but I'm not very good at the models and so forth.
44 David.
45

46 **DR. CHAGARIS:** I have a little bit of experience with EDM, but I
47 had a question more about the timing, and so you said that this
48 initial group is going to work before the research track assessment

1 gets started, and so we wouldn't be like required to do a week-
2 long data workshop in Gulfport?

3
4 **DR. FREEMAN:** I do not -- Given that I am listed as the council
5 staff on it, I do not assume that will be happening either, and,
6 again, this is simply going to be a request to the Science Center,
7 and so we don't even know that they will accept this request.

8
9 **CHAIRMAN NANCE:** David, the way I understand this is they are --
10 The Science Center is working on building the EDM for shrimp, and
11 so I think Benny and I could at least help in historical shrimp
12 stuff that may give them some guidance, but I would like to have,
13 if you're familiar with that modeling, is -- Maybe, as they develop
14 that model, you could give some guidance, some expertise, into
15 that. It's not going to be sitting in a room for a week doing
16 this, but I think it's just providing guidance as they go through
17 this.

18
19 **DR. FREEMAN:** Right, and so it's geared more towards providing
20 some additional feedback, because part of the concern -- Let me
21 back up one step, just as a reminder, and the SSC is tentatively
22 going to receive an update on that presentation that you all saw
23 in March later this fall, but part of the concern, from the AP,
24 was, and I think this was also conveyed during the council meeting,
25 but a concern of we don't want to wait until the product is complete
26 and then have concerns about it, and so, if people can provide
27 feedback as the process is going, that would be great.

28
29 **DR. CHAGARIS:** I will volunteer.

30
31 **CHAIRMAN NANCE:** Thank you.

32
33 **DR. FREEMAN:** As Dr. Simmons added, these are anticipated to be
34 virtual meetings as well.

35
36 **CHAIRMAN NANCE:** Yes, and I look at it -- It's kind of like when
37 we're sitting on those stock assessment working groups, and we see
38 products and those types of things, and we have maybe a one-hour,
39 or two-hour, meeting to talk about those as they're being
40 developed, and I think that's kind of how I envision this. Not a
41 lot, but just as they go through the process. John.

42
43 **DR. FROESCHKE:** I guess a couple of thoughts on this, and I have
44 limited experience with the EDM, although it wasn't entirely
45 positive, and I guess one thing that I'm just thinking about though
46 is, essentially, it's a parameter-free forecasting approach, and
47 there are other approaches, like for example ARIMA or something,
48 that are more embedded in other fields, in terms of time series

1 forecasting, and it would be nice to have some comparison of what
2 the advantages of this are that's probably not widely understood,
3 versus something that probably is more, I guess, traditional that
4 could be understood.

5
6 The other point of this is, unlike other processes that we've done,
7 it's my understanding that the EDM, or whatever we would use, is
8 going to be used in reference to already established benchmarks,
9 and so, if that's the case, you could forecast the biomass with
10 any number of methods, and, I mean, the principal advantage of EDM
11 is that you can't predict the covariates that you might use, which
12 is why -- But there are perhaps other ways you could try to think
13 through this, and at least it would make it more clear what the
14 EDM is doing, because I had to think about that, and, if that's
15 not correct, then I hope someone will fix my understanding, but
16 the idea that the MSY benchmark is established outside of this,
17 and may not be evaluated as part of this, seems quite different
18 from other things that we typically do.

19
20 **CHAIRMAN NANCE:** I'm not sure, and Katie may be able to address
21 this, but the way that I understand it is the benchmarks for shrimp
22 were developed through Stock Synthesis, and, since Stock Synthesis
23 is not being utilized for this new assessment, those benchmarks
24 would be developed through the EDM process.

25
26 **DR. FREEMAN:** I will just add that that's my understanding as well,
27 Jim.

28
29 **CHAIRMAN NANCE:** Katie. Can you make sure that I'm speaking
30 correctly, Katie?

31
32 **DR. SIEGFRIED:** Hopefully I heard all of that, Mr. Chair. Right
33 now, we are not entirely sure that EDMs will produce the benchmarks
34 that we need, the status determination criteria, and that is still
35 to be determined, through the end of this research project, and
36 so, as we head into the research track, we want to consider a suite
37 of models, and I promise, to Dave, that, if you volunteer, that we
38 won't meet in Gulfport for a week. We would really appreciate any
39 input, as the EDM is being developed, towards calculating those
40 benchmarks, but, at this point, we're not yet sure that that will
41 be sort of the panacea that everybody is looking for.

42
43 **CHAIRMAN NANCE:** Thank you, and I think we won't meet anywhere for
44 a week, right?

45
46 **DR. SIEGFRIED:** Right, and we can do it on the phone, for the most
47 part, sort of these webinars, and we can be flexible with
48 everybody's schedule, if it's not something that has to be noticed.

1 If it's something that needs to be noticed, we would just, you
2 know, figure that out, through council staff, but we could
3 certainly meet outside of that. Steve Munch is developing those
4 models with his post-doc, and he already expressed interest in
5 looping other people in, to make sure the development is going
6 well.

7

8 **CHAIRMAN NANCE:** Perfect. Thank you. John.

9

10 **DR. FROESCHKE:** I guess, as a follow-up, just thinking through
11 this, whatever comes out of the EDM, or whatever, is only going to
12 be meaningful in terms of reference to that benchmark, and I guess
13 I was just a little concerned that we might not give as thorough
14 consideration to what that appropriate benchmark is as to how we
15 evaluate the model. Given that that's the case, if we were to
16 wildly change our perception of the benchmark later, it could lead
17 to a total different perception of where the shrimp fishery is.

18

19 **CHAIRMAN NANCE:** I think this is a research track, to be able to
20 look into that.

21

22 **DR. FREEMAN:** Right, and, the last I saw, the research track for
23 shrimp is slated to start in 2023. All right. Well, I've got
24 three names, and so thank you for volunteering.

25

26 **CHAIRMAN NANCE:** Thank you. Any other items of business? We'll
27 go ahead then and adjourn. I'm sorry. We need to do public
28 comment. Thank you, Ryan. Eric and any others on virtual that
29 would like to participate in public comment. Captain Eric, we're
30 glad you're here.

31

32

PUBLIC COMMENT

33

34 **MR. ERIC SCHMIDT:** I haven't seen you in, what, four days? I did
35 listen to your shrimp comments earlier, and I will let you know,
36 on an economic standpoint, most of the shrimp boats in Fort Myers,
37 and Fort Myers, I believe, at one point, was the third-largest
38 shrimp port in the Gulf of Mexico, and they're all tied to the
39 dock. They can't afford to go shrimping. We have record diesel
40 prices, and even exempt from road tax, and I believe the fuel dock
41 is at \$5.80, and so they're not shrimping.

42

43 The reason I came today, and I can't actually believe that I am
44 standing here, and I am going to address the council, or this body,
45 and say what's about to come out of my mouth. I don't want you to
46 open up goliath grouper.

47

48 This is probably the first time in twenty-five years that I have

1 come to meetings and have told you not to open up a fishery. They
2 are really -- In recent years, yes, in southwest Florida, they
3 have become a nuisance, but we have adapted, and we don't go to
4 fish the wrecks where they're at, and we go do other things.

5
6 However, what it has created, because of management regulations,
7 and, you know, you shutting down red grouper and lane snapper last
8 year and me not being able to do anything for three months, is
9 it's created a new occupation, and we sell fishermen on going and
10 catching the biggest fish you've ever caught, and I can go catch
11 that fish three or four or eight or twelve times, and I make more
12 money on that fish when it stays in the water than if it were
13 extracted, plus, dealing with a 300-pound fish is kind of a pain.

14
15 You know, you've got to have enough ice, and you've got to do this,
16 and you've got to do that, and then you've got to fillet it up
17 when you get back to the dock, and that's another two hours added
18 to your day, and, yes, I will say that, since they've been closed,
19 they're really -- The population has exploded.

20
21 I did a survey with Anne-Marie Eklund out of the Science Center,
22 several years ago, and I have video of when they did I think
23 sixteen dives in a two-day period, and, the first dive, they
24 probably counted ninety on one wreck, and it was -- There is no
25 shortage of them, but I'm just going to say that I really don't
26 want them open.

27
28 It's one of the -- I tell my customers that you get five questions
29 a day, and every additional question is going to be ten-dollars,
30 and so, usually, it's how far, how fast, how deep, do you catch
31 any sharks, and then, if they're local customers, they'll ask about
32 whether or not you should -- Whether jewfish should be open. I
33 don't want them open, and just leave them the way it is.

34
35 Now, I did agree with Trevor's assumption of exploring this,
36 because, at some point in time, we're going to go down the rabbit-
37 hole that some other fishery is going to be closed, at the federal
38 level, and that is a very good point that you brought up, and so
39 that's all.

40
41 **CHAIRMAN NANCE:** Thank you. Any questions from the SSC for Captain
42 Schmidt? Okay. Thank you very much. Captain Zales.

43
44 **MR. ZALES:** Good afternoon. On red grouper, and I've got more of
45 a question, I guess, than a comment, because apparently they've
46 gone back and relooked at 42, with the MRIP-FES data, and so my
47 question would be, when 61 was done, I'm assuming it included the
48 information from 42 before FES, and so, with FES now added for 42,

1 and changing it somewhat, what would that impact be, if any, on
2 61? I don't need an answer now, but, if somebody has got a quick
3 answer, that would be good.

4
5 On jewfish, contrary to Eric, and this goes way back into the
6 1990s, when I was on the Reef Fish AP, and Bob Spaeth was on the
7 Reef Fish AP, and we were bitter enemies at the time, and Doug can
8 kind of testify to this, but the one thing that we agreed on, at
9 almost every AP meeting, and the AP passed this at every one, was
10 to have some kind of scientific research catch of jewfish, because,
11 once Don DeMaria came in there and killed them all diving, and
12 wanted them shut down, they've been shut down ever since.

13
14 From all the scientific stuff that I have learned over the years,
15 unless you've got a body to look at, to determine what's going on
16 with that body, how can you really get any kind of a stock status
17 of that fishery?

18
19 The State of Florida, what they're passing, they've got a slot
20 limit, and I don't think there's any three-hundred-pound jewfish
21 in that slot limit, and so I'm not worried about that too much,
22 and, also, years ago, the definition of "possession of fish" came
23 up, and, in talking to a couple of NOAA attorneys, their
24 interpretation of possession was, when that fish is on my hook,
25 it's in my possession until such time as I let it go.

26
27 All this stuff going on today, technically, I would assume, is
28 illegal with these catch-and-release things with jewfish, because
29 you're not supposed to have one in your possession, but, until you
30 let it go, it's there, but, anyway, I appreciate the fact that
31 they're looking into this, finally, after so many years of trying
32 to get some kind of determination on jewfish, because they're thick
33 in the Panama City area, and Corky Perret, years ago, showed some
34 jewfish caught off platforms off Louisiana, and, from what I
35 understand, they're back over there, and so there is clearly plenty
36 of them to play with to try to get some information to see what
37 their status is and what we can do, and so, other than that, that's
38 all I've got. Thank you all very much.

39
40 **CHAIRMAN NANCE:** Thank you, Bob. Ryan, please.

41
42 **MR. RINDONE:** Thank you, Mr. Chair. Hi, Captain Zales. Just to
43 your question about the relationship between the analysis that was
44 done with SEDAR 42 and its impact on SEDAR 61, and just to clarify
45 that for you, there is absolutely zero impact on SEDAR 61 and its
46 result as a result of the work that the Center did for the council
47 and the SSC on SEDAR 42.

48

1 **MR. ZALES:** Okay. Thank you.

2
3 **CHAIRMAN NANCE:** Perfect. Steve Atran, please.

4
5 **MR. STEVEN ATRAN:** I wanted to mention, for goliath grouper, that,
6 right now, the status of stocks is listed as overfished unknown
7 and not undergoing overfishing. I think, if Florida goes through
8 with this limited harvest that they're talking about, it may be
9 necessary for NMFS to reclassify the stock as undergoing
10 overfishing, since you have a zero ABC right now. If that happens,
11 the council is going to be required to do something, and I don't
12 know what it can do, other than maybe say you're not supposed to
13 do this, but they're going to have to respond in some way, and so
14 I just wanted to let you know that.

15
16 Then the other thing is, if you get this joint SSC workgroup
17 together to talk about goliath grouper and some of the other
18 species, it occurs to me that, with FWC's emphasis on harvesting
19 just the juveniles, what you've actually got is an escapement-
20 based management program here, and it's like with red drum, and we
21 harvest the juveniles that are in state waters and allow -- After
22 they reach a certain size, allow them to escape into the spawning
23 population.

24
25 Also, FWC has a Tropical Marine Life Rule, where some of the
26 tropical fish, and I think like queen angel, and I'm not sure what
27 else, has a maximum size limit, to ensure that only the juveniles
28 are harvested and the adults are left in the water to be able to
29 spawn, and so, if you're trying to think of some innovative ways
30 to manage goliath grouper, that might be one way to go, and I think
31 there is good rationale for only allowing the juveniles to be
32 harvested, especially when you think about things like mercury
33 levels, but I haven't heard anybody talk about perhaps this
34 approach to managing them, and it might be something worth
35 considering. That's all I have to say.

36
37 **CHAIRMAN NANCE:** Mr. Atran, thank you. Any questions from the
38 SSC? We appreciate you being on the call. With that, we'll go
39 ahead and call this meeting adjourned. I appreciate each of you
40 here, and it was nice to see faces again, and it was nice to be
41 able to have that interaction, and so, anyway, I guess we'll see
42 each other in July. Luiz.

43
44 **DR. BARBIERI:** Just real quickly, Mr. Chairman, and thank you, on
45 behalf of the committee, for all the hard work here, herding the
46 cats and getting us moving along this agenda, and I really
47 appreciate it.

1 **CHAIRMAN NANCE:** Now I will release you. A lot of you came for
2 both meetings, and so, anyway, thank you.

3

4 (Whereupon, the meeting adjourned on May 11, 2022.)

5

6

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