

1 GULF OF MEXICO FISHERY MANAGEMENT COUNCIL

2  
3 AD HOC RED SNAPPER PRIVATE ANGLER ADVISORY PANEL

4  
5 Gulf Council Office Tampa, Florida

6  
7 JANUARY 18, 2018

8  
9 **AD HOC RED SNAPPER PRIVATE ANGLER ADVISORY PANEL MEMBERS**

- 10 Charlie Caplinger.....
- 11 Hughes Andry.....TX
- 12 William M. (Butch) Blankenship.....
- 13 Ray Box.....TX
- 14 James "Jim" Allen Brown.....FL
- 15 Nathaniel Duvall.....MS
- 16 Marcus R. Kennedy.....AL
- 17 Ed Landgraf.....LA
- 18 Mark Luitjen.....
- 19 John T. Marquez, Jr.....
- 20 Michael B. McDermott.....MS
- 21 Brad Miller.....
- 22 Kellie Rebello Ralston.....FL
- 23 Mark Turner.....AL
- 24 Rodolfo C. Valenciano.....LA
- 25 Troy Williamson, II.....

26  
27 **STAFF**

- 28 Assane Diagne.....Economist
- 29 John Froeschke.....Fisheries Biologist-Statistician
- 30 Doug Gregory.....Executive Director
- 31 Karen Hoak.....Administrative & Financial Assistant
- 32 Ava Lasseter.....Anthropologist
- 33 Camilla Shireman.....Administrative & Communications Assistant
- 34 Carrie Simmons.....Deputy Executive Director

35  
36 **OTHER PARTICIPANTS**

- 37 Kim Amendola.....NOAA Fisheries
- 38 Doug Boyd.....GMFMC
- 39 Shannon Calay.....SEFSC
- 40 Roy Crabtree.....NOAA Fisheries
- 41 Jason Delacruz.....FL
- 42 Russ Dunn.....NOAA Fisheries
- 43 Sepp Haukebo.....
- 44 Dylan Hubbard.....FL
- 45 Peter Hood.....NOAA Fisheries
- 46 Gary Jennings.....
- 47 Randall Keys.....
- 48 Kai Lorenzen.....

1 Sean Meehan.....  
2 Tom Wheatley.....  
3 Ted Venker.....CCA  
4 Yuying Zhang.....

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6  
7

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PAGE 98: Motion to support state management of all recreational red snapper. The motion carried on page 104.

PAGE 133: Motion that the committee fully supports and endorses the Modern Fish Act as incorporated into H.R. 200". The motion carried on page 134.

PAGE 135: Motion that that council investigate the impact of the illegal red snapper fishery occurring in U.S. waters operating out of Mexico. The motion carried on page 135.

PAGE 137: Motion to explore the requirement of descending devices and/or venting tools to reduce discard mortality in all sectors: commercial, headboat, and recreational. The motion carried on page 144.

PAGE 147: Motion to recommend the council reconsider red snapper allocations considering all relevant factors, including, but not limited to the following: social, economic, historical catch, and increased participation of the recreational sector. The motion carried on page 150.

PAGE 154: Motion to recommend that the council explore voluntary angler electronic reporting of harvest and discards and how that information can be incorporated into management decisions and stock assessments. The motion carried on page 154.

PAGE 154: Motion to consider increasing the creel limit on red snapper to three fish with one fish over twenty inches, and the other two fish have got to be under twenty inches. The motion failed on page 161.

PAGE 163: Motion to reconvene the panel again. The motion carried on page 163.

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1 The Meeting of the Ad Hoc Red Snapper Private Angler Advisory  
2 Panel of the Gulf of Mexico Fishery Management Council convened  
3 at the Gulf Council Office, Tampa, Florida, Thursday morning,  
4 January 18, 2018, and was called to order at 8:30 a.m. by  
5 Chairman Charlie Caplinger.

6  
7 **AGENDA AND INTRODUCTIONS**  
8

9 **CHAIRMAN CHARLIE CAPLINGER:** With all the flight cancellations  
10 and the closed interstates, we certainly appreciate you being  
11 here. I have to read a Chair statement, and so bear with me  
12 here.

13  
14 Good morning. My name is Charlie Caplinger, and I welcome all  
15 of you, as the Chair, to the Ad Hoc Red Snapper Private Angler  
16 Advisory Panel for the Gulf of Mexico Fishery Management  
17 Council. We appreciate your participation in this meeting.  
18 Representing the Gulf Council is Doug Boyd, and council staff  
19 for this meeting are John Froeschke, Karen Hoak, and Camilla  
20 Shireman.

21  
22 Notice of this meeting was posted in the Federal Register and  
23 provided to the media and subscribers of the council's email  
24 list. Meeting information was also posted on the council's  
25 website. The purpose of today's meeting is to provide  
26 recommendations to the council on private recreational red  
27 snapper management measures which would provide more quality  
28 access to the resource in federal waters, reduce discards, and  
29 improve fisheries data collection.

30  
31 This meeting is open to the public, and members of the public  
32 are welcome to speak at times that will allow the orderly  
33 conduct of business. Please advise me or the council staff if  
34 you desire to address the committee. If you have not already  
35 done so, please register in the sign-in book at the entrance.  
36 Agendas are also over there for anyone needing a copy.

37  
38 This meeting is being recorded, and so, when you speak, please  
39 identify yourself and speak into the microphone, and, anyone  
40 that does not have a microphone, please find one and identify  
41 yourself. Please deactivate microphones when finished. A  
42 summary of the meeting will be produced and will be available to  
43 the public along with the digital recordings. Interested  
44 parties may contact the council office if they desire copies of  
45 either. For the purpose of voice identification, we ask that  
46 each member identify him or herself, starting on my left.

47  
48 **MR. DOUG BOYD:** Doug Boyd, council.

1  
2 **MR. JOHN T. MARQUEZ, JR:** Johnny Marquez.  
3  
4 **MR. WILLIAM M. BLANKENSHIP:** Butch Blankenship.  
5  
6 **MR. ED LANDGRAF:** Ed Landgraf, Louisiana.  
7  
8 **MR. RODOLFO C. VALENCIANO:** Rudy Valenciano, Louisiana.  
9  
10 **DR. JOHN FROESCHKE:** John Froeschke, council staff.  
11  
12 **DR. AVA LASSETER:** Ava Lasseter, council staff.  
13  
14 **DR. ASSANE DIAGNE:** Assane Diagne, council staff.  
15  
16 **MR. RAY BOX:** Ray Box, Texas.  
17  
18 **MR. MICHAEL B. MCDERMOTT:** Michael McDermott, Mississippi.  
19  
20 **MR. MARCUS R. KENNEDY:** Marcus Kennedy, Alabama.  
21  
22 **MR. HUGHES ANDRY:** Hughes Andry, Sportco Marketing, out of  
23 Texas.  
24  
25 **MR. JAMES "JIM" ALLEN BROWN:** Jim Brown, Florida.  
26  
27 **MS KELLIE REBELLO RALSTON:** Kellie Ralston, Florida.  
28  
29 **DR. ROY CRABTREE:** Roy Crabtree, NOAA Fisheries.  
30  
31 **DR. SHANNON CALAY:** Shannon Calay, NOAA Fisheries.  
32  
33 **MR. NATHANIEL DUVALL:** Nate Duvall, Mississippi.  
34  
35 **MR. MARK TURNER:** Mark Turner, Alabama.

36  
37 **APPROVAL OF THE MINUTES FROM THE MAY 8-9, 2017 MEETING**  
38

39 **CHAIRMAN CAPLINGER:** Thank you, all. I have to hit this to  
40 start this meeting. Just so you know, we have to approve the  
41 minutes from last year's meeting on May 8 and 9, and so, if you  
42 can, please review these, and we need a motion to approve them,  
43 after you have reviewed them, and so take a second to review  
44 these minutes. Can I get a motion? I have a motion to approve  
45 the motion and a second. All in favor; any opposition. The  
46 minutes are approved.

47  
48 I just want to let you know, as a housekeeping note, that I

1 think Dr. Shipp is under the weather today, and so he will not  
2 be here, and I think Dr. Porch is not here as well, but I think  
3 we have a substitute presenter there. With that, I will  
4 introduce Dr. Froeschke to tell us why we are here.

5  
6 **PRESENTATION: SUMMARY OVERVIEW OF REQUESTED ITEMS FROM LAST**  
7 **MEETING**  
8

9 **DR. FROESCHKE:** Thanks, and good morning. On behalf of the  
10 council, again, thanks, everybody, for taking the time to come.  
11 I know it's not easy to get out of your personal lives, and  
12 travel is not easy.

13  
14 Before we get started, if you need to use the restroom, women  
15 are out this door and straight down the hall on your left, and  
16 the men are down past the elevators and then take a right. You  
17 will see the sign. Coffee and bagels and that sort of thing are  
18 back there, and there are drinks, sodas and water, in the  
19 refrigerator. Please help yourself.

20  
21 If you need something else and you don't have it and you can't  
22 find it, let me or one of the other council staff know, and  
23 we'll do our very best to get whatever it is you need. As the  
24 day goes on, if you have some snafu with your travel or  
25 something like that, please let us know, and we will try and  
26 help you, if you're going to need transportation to the airport  
27 and things like that. Any questions on that stuff before we get  
28 started?

29  
30 **CHAIRMAN CAPLINGER:** How about lunch?

31  
32 **DR. FROESCHKE:** Lunch, I think there was an email sent out.  
33 Karen, stop me if I get off track, but lunch is going to be  
34 provided, and so probably it should be brought into the room.  
35 Then, I think, on your per diem, I think you just take off like  
36 thirteen-dollars for lunch. Is there anything that I missed on  
37 that?

38  
39 **MS. KAREN HOAK:** To make sure that the AP -- You won't be able  
40 to go out, and so it's a working lunch.

41  
42 **DR. FROESCHKE:** Any questions on that? Okay. The plan is -- As  
43 Charlie indicated, Dr. Shipp is sick. He just let me know, and  
44 so, that part, we're just going to have to reschedule. He has a  
45 unique perspective, and so it's difficult to find someone that  
46 can provide that in the absence of him, and Dr. Porch is not  
47 here.

1 Dr. Calay is here, and she's a very capable stock assessment  
2 scientist from the Southeast Fisheries Science Center. She is  
3 well-versed in all things stock assessment. She has done many  
4 herself, and she works at a high level there, and so I think she  
5 will be a great resource for the group, both specifically on  
6 things relevant to red snapper and more generally on how the  
7 assessment process works and how that folds into the management  
8 and things like that. At the end of her presentation, please  
9 use her as a resource. She is very knowledgeable.

10  
11 I have prepared a short presentation, if you want to bring that  
12 up, Karen. If you recall, at the last meeting, there were a  
13 number of information requests, I will call them, that you felt  
14 like more background information was necessary. What I tried to  
15 do was provide some of that here or give you a response to each  
16 of those items, and so I was going to start with that.

17  
18 This is not intended to be an in-depth thing, and part of it,  
19 for example the stock assessment information, Dr. Calay is going  
20 to provide, and so I won't try to replicate that, but I did want  
21 to let you know that we did respond to your requests, to at  
22 least let you know.

23  
24 I think it's always good to start a meeting with why we're here.  
25 If you recall back to the first one, we obviously have a  
26 problem, in terms of stakeholder satisfaction, with the red  
27 snapper recreational fishery, in terms of access and things, and  
28 we hope to be able to improve that, and so you all, as the  
29 knowledgeable stakeholders, have probably been underrepresented  
30 in the council process, at least from a private recreational  
31 perspective, and so we're trying to reach out to you all and get  
32 your advice.

33  
34 We have tried to get a broad swath of regional perspectives and  
35 different participants in the fishery. Weather aside, I think  
36 we've been able to do that, but please keep that in mind.  
37 That's why you're here, and we're hoping that you can provide  
38 guidance to the council, both in terms of we would like to see  
39 more of this or we would like to see less of something else, but  
40 both of those are useful, and, the more prescriptive you can be,  
41 the better, but I understand that it doesn't have to be --  
42 Concepts are helpful as well.

43  
44 In terms of the charge, you have seen this before as well. The  
45 council has convened this group to think of ways we can increase  
46 access in federal waters, and we can discuss both the state and  
47 federal waters and how they interplay and methods to potentially  
48 reduce discards. As you know, discarded fish are wasted, and

1 so, if we can reduce those, that leaves more open to fishing and  
2 more access.

3  
4 Then, third, if you have ideas on how data collection can be  
5 improved, and there is obviously is a connection. If we have  
6 better data, then we may be able to improve our estimates of  
7 harvest and things and improve access.

8  
9 This little flow chart on the bottom here, just to kind of  
10 remind everybody of the way this works, the council gave a  
11 charge, and we formed an AP, and the AP provides recommendations  
12 to the council. The council will consider these, but they're  
13 under no obligation to act on these. At any rate, that little  
14 black arrow, whatever the council does or doesn't do with your  
15 recommendations, I will let you know. I will write back, in an  
16 email or something, and just say these are the recommendations  
17 and the council did X, Y, and Z, or didn't do, and so I do try  
18 to do that.

19  
20 In the past, sometimes APs have provided recommendations and  
21 then APs have -- We haven't always been great about following  
22 up, and so just to let you know that we will -- You will hear  
23 from us again.

24  
25 The action items, this is from the May 2017 meeting, and there  
26 were some requests for a description of the inputs, if you will,  
27 to how harvest recommendations are arrived at, and so I'll give  
28 you a little bit of background on both the fishery-dependent and  
29 the independent data, what they are and how they're used.  
30 Shannon also has some more detailed methods on that.

31  
32 There was some discussion about the use of economic data in  
33 fisheries management, and I think most of you are aware that  
34 economics is part of the Magnuson Act. Dr. Diagne here is the  
35 staff economist here, and he's worked here for a long time, and  
36 he's very knowledgeable about that, and so we have some slides  
37 in here, and he's going to kind of walk you through how these  
38 data are used and their role in fishery management.

39  
40 Last time, there was questions about allocation, both how these  
41 numbers were derived, both between the commercial and  
42 recreational sector and within the for-hire and private rec  
43 components on the recreational side, and so we have a little bit  
44 of information about that.

45  
46 This one about legislative issues, I will start by saying that  
47 that's sort of above our paygrade, and, as a council, we're not  
48 involved in particular bills from Congress, and that's by

1 design.

2  
3 In the past, Doug Gregory, our Executive Director, has prepared  
4 an outline of one bill in there, and it's in the background  
5 materials. It sort of looks at the council response to the  
6 intended request. I am aware that there are several other bills  
7 in various states of progress, if you will, but I haven't  
8 prepared that. That's just not what we do. I'm sorry.

9  
10 The last part, again, Dr. Calay is on the stock assessments and  
11 harvest, and she has prepared a fairly detailed presentation,  
12 and I do think that it provides a lot of useful information on  
13 how this process works, and, again, I think your ability to ask  
14 questions, if you have specific questions to her, will be very  
15 useful.

16  
17 That's sort of what we have prepared on this. At the end of the  
18 day, what we hope to do is provide time for some lengthy  
19 discussions, to give you time to deliberate and make the  
20 recommendations that you feel are appropriate.

21  
22 At this time, I will just give you a little bit more  
23 information, and I'm approaching this from inputs to how a  
24 fishing level recommendation, specific to red snapper, works in  
25 the Gulf. This will generally be representative of what we  
26 would call a data-rich species, meaning a species that has a  
27 fully age-structured stock assessment model that's data-rich and  
28 we have a lot of information. We don't have everything that we  
29 would like to have, but we do have more than many species.

30  
31 In terms of the kinds of data, we broadly think of it as  
32 fishery-dependent or fishery-independent. Fishery-dependent  
33 means these data are derived from fisheries, both recreational  
34 and commercial fisheries. We use these to derive a few  
35 different things. One is the total harvest, which is that  
36 second bullet there, which is fairly to simple to think of.  
37 It's just how many individuals, either in pounds or numbers,  
38 were removed from the fishery. In this case, it's by the  
39 commercial. We also do that, obviously, for recreational.

40  
41 Other things are the catch rate, meaning how fast they are  
42 removed from the fishery with a given amount of effort, and so  
43 we use these to understand the catch per unit effort, which can  
44 be associated with an overall abundance of a stock.

45  
46 As you know, the commercial fishery is tightly controlled, in  
47 terms of the reporting requirements. Their effort is well  
48 estimated, and the total number of participants is controlled

1 and much smaller than the recreational fishery, and so those  
2 data certainly are included in the assessment, both from an  
3 index of abundance and total removals on the harvest side.

4  
5 The recreational is a little bit different. There are really  
6 kind of three parts of the recreational that we monitor. There  
7 is the private recreational, which is many of you, and that's  
8 individuals going out on their own boats or fishing from the  
9 shore. Obviously, you're not shore fishing for red snapper,  
10 but, in general, this is a broad group of participants fishing  
11 in a lot of different ways from a lot of different access  
12 points, and, historically, these participants have always been  
13 surveyed by surveys.

14  
15 It used to be MRFSS in the Gulf states, minus Texas, and that's  
16 been transitioned to MRIP, which attempted to improve and  
17 address many of the shortcomings in the MRFSS system that was a  
18 result of a 2006 National Academy of Sciences review.

19  
20 The MRIP survey operates in Florida, Alabama, and Mississippi,  
21 and there are two parts. The effort is estimated by a mail  
22 survey now, where they have a registry of anglers, and they  
23 contact them in a sampling program to estimate how many people  
24 are fishing in a given area in a given block of time.

25  
26 They also conduct dock-side intercepts. They actually meet  
27 people at the dock when they return from trips, and they see  
28 what they caught, how many, how big, and so they use that to  
29 obtain both the biological information as well as estimates of  
30 what and how many, and that can be combined with the effort to  
31 get estimates of how many fish were harvested and discarded.

32  
33 In Louisiana, in 2014, they began developing their own program  
34 called LA Creel. It was meant to address what they felt were  
35 some of their more regional needs that MRIP wasn't addressing,  
36 and they have used this in lieu of MRIP, and they have  
37 calibrated it, and so it has recently become a certified  
38 replacement, but, essentially, it serves the same purpose,  
39 although it does survey both the for-hire sector, at least  
40 charter boats, as well as the private anglers, and I will come  
41 back to the headboats in a minute.

42  
43 The Texas Parks and Wildlife, Texas has always done their own  
44 survey. They started theirs in the 1970s, long before the MRFSS  
45 or MRIP surveys existed, and they have always felt that it meant  
46 their needs. The good news about it is that it's been around  
47 for a long time and it's fairly consistent. These other ones  
48 have changed more, and there may be challenges in estimating red

1 snapper and things, some species, based on their sampling  
2 program, but I won't get into those specifics.

3  
4 What we did do, and I don't work for any of these states, and so  
5 I don't want to represent their programs, but we did provide  
6 some background information on the website, in the background  
7 materials, about the specific websites.

8  
9 Lastly, just the logbooks, as you know, what we call the  
10 headboats are the big for-hire vessels, where people pay per-  
11 person and they go out on the trips, and there might be sixty or  
12 a hundred people out, and we have a special program called the  
13 Southeast Region Headboat Survey, and they have an electronic  
14 reporting program.

15  
16 Once a week, the vessel operators are required to send a report  
17 of what they caught, and it's all electronic, and so it's a  
18 little bit different system, but it does give high-quality data  
19 pretty quick.

20  
21 **MS. RALSTON:** John, before you leave that slide, could you give  
22 kind of a brief overview of kind of where the states, Florida,  
23 Alabama, and Mississippi, are in developing their own programs  
24 to potentially replace MRIP, as Louisiana has done, and maybe  
25 how those are comparing with MRIP, if we have any sort of --

26  
27 **DR. FROESCHKE:** I have a little bit more information in a coming  
28 slide on some of that, and Shannon has some of that as well.  
29 Then this next slide sort of just illustrates the problem. As I  
30 indicated, these are broad, multispecies generalized surveys.  
31 The red snapper season has gotten progressively shorter, and  
32 these types of surveys don't always work well in short seasons  
33 for single species.

34  
35 The other thing that has changed is, as the federal season has  
36 gotten shorter, the state seasons have expanded, and I think  
37 you've seen this figure before. On the panel on my left, it  
38 shows the number of days in the state seasons for each of the  
39 five Gulf states, and this top one up here looks a little bit  
40 funny, but that's Texas, and they've always had a year-round  
41 state season, but the remaining Gulf states, as you can see, in  
42 recent years, have dramatically increased their state seasons.

43  
44 The result of that is that the proportion of the quota, or  
45 allowable harvest, that comes from state waters is now quite  
46 substantial, and so that, essentially, comes off the top. The  
47 more fish you harvest in state waters, the fewer that can be  
48 harvested in federal waters, and the result has been a shortened

1 season.

2  
3 These shortened federal seasons in response, the Gulf states  
4 have each developed a specific survey program to improve their  
5 estimates of red snapper harvest in their states, and so what  
6 I've done is just, kind of across the top here, is each state --  
7 Kind of a brief description of their programs.

8  
9 Florida has the Gulf Reef Fish Survey, and it's a registry  
10 system that tries to reduce the pool of anglers, and there's a  
11 lot of people -- When you go out, you'll see a lot of boats, but  
12 the vast majority do not. They're inshore fishermen, and so, to  
13 the extent you can remove those from your survey pool, it helps  
14 improve the estimates of reef-fish-associated species.

15  
16 Alabama has what they call Snapper Check, and this is a  
17 reporting system and where anglers are required to report their  
18 landings. It's an electronic system, and it produces estimates  
19 based on a capture-recapture method, and many of these -- They  
20 have worked with statisticians and things, and they're under  
21 review to try to make these systems as robust as they can, and  
22 it's an ongoing process, but it is fairly sophisticated, and the  
23 idea that these programs are in various levels of certification,  
24 but, ultimately, the idea is that they will replace the MRIP  
25 estimates for at least these species.

26  
27 Mississippi has a Tails and Scales Program. It's also a  
28 mandatory red snapper reporting program that you have to have a  
29 trip authorization and report your harvest, and, before I go on,  
30 each of these have more detail, again, in the background  
31 presentation for each of the states that they provided to the  
32 council at the June 2017 meeting, and so, rather than hashing  
33 through all of those, I just put them up there, if you want to  
34 look through them. If you have a specific question about them  
35 from a state, we can certainly get you in contact.

36  
37 Louisiana has their own LA Creel survey, and, again, this  
38 includes both private and for-hire sampling, but it's an effort-  
39 intensive survey, and it generates a fairly specific time and  
40 precise estimates of harvest, and so it has recently been  
41 certified to replace MRIP.

42  
43 Then, again, with Texas, as I've said, they've had a long --  
44 They have a long-going survey. They have a Gulf-only survey to  
45 improve their estimates of offshore species, and they have also  
46 worked with the iSnapper program that, as you probably know, was  
47 developed by Greg Stunz at Texas A&M Corpus Christi, which is an  
48 electronic reporting program.

1  
2 It relied on a dockside validation, which was done by the Parks  
3 and Wildlife, and they have worked with them for a long time,  
4 and there may be some closer integration in the future between  
5 those programs.

6  
7 On the fishery-independent side, the value of these data are  
8 they are useful in producing estimates of abundance of the stock  
9 that doesn't require as much adjustment for changes in  
10 regulatory things. The fishery-dependent, for example, the  
11 harvest is affected by the seasons and the rules and all these  
12 things.

13  
14 The fishery-independent, the idea is that the gears are used in  
15 a specific way in a sampling design, and so the estimates,  
16 through time, should be representative, and so increases in  
17 abundance over time should be proportional to an increase in  
18 abundance of the stock in that same time period.

19  
20 As you know, there are lots of different habitats in the Gulf,  
21 and red snapper use different habitats throughout their life and  
22 their sizes, and so different gear types are necessary to try to  
23 characterize the abundance of the various life stages and across  
24 habitats.

25  
26 Traditionally, in the Gulf, the longest-standing survey has been  
27 a trawl survey used for multispecies, and it does not capture  
28 adult red snapper, because they don't survey on reefs,  
29 typically, and they're too big. It does provide a good index of  
30 juvenile abundance.

31  
32 The reef fish trap video surveys is a more specialized survey  
33 aimed at red snapper. It's a more recent survey. We also have  
34 the vertical line and the longline. The longlines catch the  
35 larger animals. They set these near the reefs, but not on the  
36 reefs, and so each of these individually produces indices of  
37 abundance, and they target specific sizes and ages of red  
38 snapper.

39  
40 All of this information is combined, as you will see from  
41 Shannon's presentation, into the stock assessment, and so there  
42 are a number of different inputs. If you're interested, I also  
43 did put a link down here with a full description. It's a  
44 pamphlet, and it's readable, but it's longer than I wanted to go  
45 through here, and it has more detail about the sampling effort  
46 and the intensity in each of the programs, and so I encourage  
47 you to have a look at that.

48

1 Then, on these charts on the right, you kind of just see, down  
2 here, and you can't read that, but I think that's the SEAMAP,  
3 but you can see that each dot represents a sampling location,  
4 and the different colors represent the various state entities,  
5 and so this is a federal program, but it's done by the states,  
6 through SEAMAP, and so, as you can see, there's a lot of effort.  
7 I mean, it's a big Gulf, but it is Gulf-wide, at least in  
8 fishable waters, in terms of depth, and so it's an intensive  
9 survey that is very useful.

10  
11 At this point, you did ask for some information about economics,  
12 and I am not an economist, and I pretend to be sometimes to  
13 tease Assane, but I'm going to turn it over to him and kind of  
14 have him walk you through how this information is incorporated  
15 into the FMP process.

16  
17 **DR. ASSANE DIAGNE:** Thank you, John, and good morning, again. I  
18 will try to provide a very brief overview of some of the uses of  
19 economics within our management process. During this short  
20 overview, some of the key points we'll try to touch on would  
21 include a purpose for these analysis, some of the mandates that  
22 we have, as indicated in the Magnuson Act, for example, and some  
23 Executive Orders, and, finally, briefly discuss the distinction,  
24 or the difference, if you will, between economic impact and  
25 economic effects, or economic value, because it seems to me, and  
26 in talking to John, that it has been a recurring theme of  
27 discussion.

28  
29 I will just go ahead and look at some of the mandates, and  
30 emphasis on the word "some". We have additional mandates and  
31 additional Executive Orders. Essentially, the National  
32 Standards in the MSA, the Magnuson-Stevens Act, would require us  
33 to do certain types of analysis.

34  
35 In terms of the fisheries description, we typically include also  
36 the economic impacts and look at business activities within the  
37 Gulf of Mexico, and the key issue here is to make sure that the  
38 rebuilding restrictions, as well as the benefits that may occur,  
39 are allocated equitably.

40  
41 In terms of mentioning a few Executive Orders, and, actually, I  
42 will mention just one, 12866, which really gives us guidance on  
43 how to conduct regulatory impact reviews, and, here, really, the  
44 focus, the emphasis, is on maximizing net benefits to the  
45 nation. I will repeat this. It's to make the distinction  
46 between the nation, which is, I guess, broader in scope, and the  
47 Gulf of Mexico, which is, essentially, under the council's  
48 purview, but our directive is to look at net benefits at the

1 national level.

2  
3 We have also some analysis to conduct under NEPA, including, for  
4 example, the cumulative effects, and that is always included in  
5 all of our amendments, and a final mandate that we will mention  
6 here as an example would be, for example, coming from the  
7 Endangered Species Act and when it comes, for example, to  
8 designation of critical habitat.

9  
10 Now on to the purpose of these analyses that we typically  
11 include in the regulatory actions. We have to evaluate the  
12 expected economic consequences of the management alternatives  
13 and the consideration in a particular, let's say, amendment or  
14 framework action. In doing so, some of the questions and some  
15 of the issues that we look at would include who is expected to  
16 be affected by the proposed regulation, how, and by how much.  
17 That would be one aspect.

18  
19 What are the economic effects and impacts on fishing businesses,  
20 individual fishermen, and other entities that may be affected,  
21 suppliers, dealers, processors, communities? I will come back  
22 in a second and talk about economic effects versus economic  
23 impacts, and, finally, we address the distributional effects, in  
24 terms of who wins and who loses and essentially was the split  
25 equitable amongst the parties.

26  
27 Let's look a little bit at the difference or the distinction  
28 between economic effects or economic values and economic  
29 impacts. When we look at economic effects, we, in general,  
30 discuss changes in participation and activities and efforts, and  
31 we look at the change in harvest by sector. We look at the  
32 changes in ex-vessel and trip prices, changes in revenue and  
33 harvesting cost, and changes in economic value.

34  
35 In economic value, we have two components. One is known as  
36 consumer surplus, and, essentially, if we wanted to define  
37 "consumer surplus", it is the difference between the maximum an  
38 angler is willing to pay for a trip, or let's say for a fish,  
39 and minus the cost of harvesting the fish, and so, obviously,  
40 the wider that gap, the better off the angler is.

41  
42 On the side of the producer, we have a measure known as producer  
43 surplus, and this is the difference between what it is that the  
44 producer receives for a trip, let's say a charter/for-hire  
45 operation, minus the cost of providing that trip, and, here  
46 again, the wider that gap, the better off, let's say, the  
47 charter captain or owner would be, because then you would have  
48 additional resources that you can turn around and apply to some

1 other productive uses.

2  
3 Again, when we look at economic value, is it towards computing  
4 the net economic benefits to the nation, or the broad  
5 perspective. Now, when we are looking at the economic impacts,  
6 those would include changes in employment and jobs, income, and  
7 added value, but these are really geared towards a specific  
8 region. You will look, for example, at an economic impact in a  
9 well-defined community, state, or region, or let's say, for  
10 example, towards the Gulf of Mexico. Here, your interest is in  
11 looking at the linkages within the economy of the region that  
12 you have previously determined.

13  
14 One last observation is let's say, for example, we have a very  
15 long spell of extremely bad weather and recreational anglers do  
16 not have the opportunity to go out and fish. The expectation is  
17 that some of those recreational dollars, and I put that in  
18 quotes, would be directed towards other activities within this  
19 country. People would find other ways to entertain themselves  
20 and participate in leisure activities, and so it is not all  
21 lost.

22  
23 Essentially, when looking at the management measure, economic  
24 impacts are important, in terms of looking at the linkages.  
25 Where is money spent and how does it flow, but the central  
26 measure for us would be the economic value, because that is the  
27 measure that directs us towards the net national benefits, net  
28 benefits to the nation, which is our primary mandate, per the  
29 Magnuson Act.

30  
31 **CHAIRMAN CAPLINGER:** Excuse me for a second. In your opinion,  
32 what does the data show about economic value to the nation for  
33 red snapper, as you compare it from a commercial target to a  
34 recreational target?

35  
36 **DR. DIAGNE:** I would preface my answer by saying that I don't  
37 have an opinion. What I can share with you is what the data  
38 showed us.

39  
40 **CHAIRMAN CAPLINGER:** Yes.

41  
42 **DR. DIAGNE:** Essentially, when we compare numbers, one of the  
43 challenges is always to compare apples to apples, if you would,  
44 likes with likes. It does not tell us a whole lot when we take  
45 let's say economic impacts of X and Y billion from one sector  
46 and compare it with economic impacts of other type of billions  
47 in another sector. That does not tell us anything. It just  
48 simply tells you how the resources, if you would, flow within

1 the linkages in a particular region.  
2  
3 What is of benefit, and of value, when we have a regulation to  
4 evaluate before us, is to evaluate those changes that we talked  
5 about and to look at how the proposed management alternative, if  
6 you would, impacts the net benefits to the nation. In computing  
7 the net benefit to the nation, both sectors, if we are talking  
8 about fishing here, meaning the recreational sector as well as  
9 the commercial sector, are contributors to this, because we look  
10 at consumer surplus and producer surplus, and so both sides  
11 contribute to enhancing the net benefit to the nation.  
12  
13 **CHAIRMAN CAPLINGER:** What you're telling me is the data does not  
14 say that the commercial value is more than the recreational  
15 value or vice versa, and is that right?  
16  
17 **DR. DIAGNE:** Yes, what I'm telling you is, in computing the net  
18 benefit to the nation, you take the contribution of both and you  
19 look at enhancing that, and, in general, in comparing different  
20 management alternatives, but, at this point, I would not be able  
21 to say that this sector has contributed more than this one,  
22 based on let's say numbers that we see in terms of economic  
23 impact, however large those numbers may be.  
24  
25 **MR. BROWN:** I am trying to wrap my head around what you said,  
26 and so I have to kind of simplify it down, to make sure I've got  
27 it straight. In my area, in Apalachicola, during red snapper  
28 season, we probably see 75 percent of the vehicles in the  
29 parking lot at the boat ramp are from Georgia, and so, if you  
30 shorten the red snapper season, then those folks from Georgia  
31 won't come down, and they will stay in Georgia, but they might  
32 go to a movie instead and still spend money.  
33  
34 You're saying that that impact could be a positive to the nation  
35 as a whole, because they're staying home and spending money, but  
36 it could be a negative for Apalachicola, because they're not  
37 coming there, but you're not necessarily counting the negative  
38 for Apalachicola, because there is still a benefit in Georgia,  
39 and is that correct?  
40  
41 **DR. DIAGNE:** It is close, absolutely, and the fundamental idea  
42 that you have right is the fact that, if you are looking at  
43 changes in efficiency, which is what economic value allows us to  
44 measure, then the fact that one spends, let's say, a dollar in  
45 Apalachicola, or that same dollar is spent in Tampa or in  
46 Boston, should not make a difference.  
47  
48 It would, of course, be of great importance to the community in

1 Apalachicola, or let's say in Tampa Bay or in Destin and so  
2 forth, and that is the key distinction, but there is a matter of  
3 scope.

4  
5 Per the MSA, our scope and primary, I guess, responsibility is  
6 to maximize net benefits to the nation, but, of course, if you  
7 took the mayor of a small town somewhere in the Gulf, then their  
8 responsibility is to make sure that revenues flow within that  
9 community and create jobs and so on and so forth, and so therein  
10 lies, if you would, a difference in scope that would then be  
11 translated into a difference in objectives.

12  
13 **MR. KENNEDY:** I think one of the things we have to deal with,  
14 and maybe there is a misconception, but, basically, what a lot  
15 of us want to know is this economic impact and assigning value  
16 to a red snapper is what we've got in our mind, and so we're  
17 trying to basically figure out what the value of that red  
18 snapper is to the nation.

19  
20 So, when we wind up with one extra red snapper and we put it out  
21 there on the floor, what is the value of that red snapper as a  
22 recreationally-caught red snapper versus what is the value of  
23 that same ten-pound red snapper if it's caught as a  
24 commercially-caught red snapper, and one stakeholder that a lot  
25 of us don't give credit to, but some people want that red  
26 snapper to still swim in the ocean, and what is the value of  
27 that?

28  
29 We've got two consumptive users, a recreational and a  
30 commercial, and then a non-consumptive user that just wants the  
31 thing left staying around there, and so, when you decide where  
32 that extra red snapper gets to go, just commonsense says, okay,  
33 from an economic standpoint, we want to know, dollar-wise, is  
34 that red snapper more valuable?

35  
36 Is that ten-pound red snapper worth a hundred-dollars if a  
37 recreational angler catches it? Is it worth fifty-dollars if  
38 it's caught and sold commercially? Then, if it's just left  
39 swimming around in the Gulf, what is it worth, and so, in my  
40 mind, I'm thinking that's the way you determine what is the net  
41 economic benefit of that red snapper, and so is there anything  
42 in place that allows you to assign what amounts to a simplistic  
43 value to that red snapper, so that when, say the Scientific and  
44 Statistical Committee comes up with this extra red snapper, who  
45 gets dibs on it, from an economic standpoint?

46  
47 **DR. DIAGNE:** This is a great question, because it really gets at  
48 the heart of what it is that we are trying to discuss, and,

1 essentially, if you allow me to segue, this goes at the core of  
2 how allocation decisions are made, essentially. I would just  
3 cover the next slide, and, in the process, come back and answer  
4 your question.

5  
6 One of the examples that we thought to include, after talking to  
7 John, is to look at this, I guess, thorny issue of allocation  
8 between sectors. Allocations should be based, essentially, on  
9 economic efficiency, and economic efficiency has to do with  
10 economic value, which you just mentioned.

11  
12 The other side of it, the impacts, the bigger the expenditure,  
13 the bigger the impact. I would say just one more thing about  
14 impacts and then move on and address the points that he just  
15 made. If, for example, tomorrow we have a catastrophe in some  
16 area, and I don't want to say the Bay Area, but let's say in the  
17 Gulf, an oil spill or something of that nature, that would  
18 damage the natural resource, obviously, that we have, and that  
19 will damage a whole lot of things, but, on the flip side of  
20 that, because you are going to bring a lot of money to clean it  
21 up and hire people, that would increase economic impact, and so  
22 economic impacts, large numbers, are not necessarily good for  
23 us.

24  
25 Now to come back to this. In terms of allocation, the right  
26 metric is economic value, and so, in this particular case, you  
27 would pick up a fish and look at let's say both sectors, the  
28 commercial sector and the recreational sector, and compare the  
29 marginal willingness to pay, essentially, and say in which part  
30 would this fish generate more value?

31  
32 Now comparing the two values, and the recent studies that we  
33 have would suggest that, at the margin, a recreationally-caught  
34 fish has more value than the commercially-caught fish, and I  
35 stress what I just said. I say at the margin. At the margin  
36 would allow you to make small changes around that margin, and  
37 so, if you want to use those numbers to make large, or  
38 wholesale, changes in allocation, you have a problem.

39  
40 The problem that you have is nobody knows whether that marginal  
41 value would still hold, but what I can say for certain is that,  
42 at the margin, based on all of the studies that I have seen, a  
43 recreationally-caught fish is worth more than a commercially-  
44 caught fish. That is one thing.

45  
46 The second thing, perhaps, that we can offer to answer his  
47 question further is that, when those numbers are derived, there  
48 is a fundamental assumption that is made in the methods of

1 calculation, and what is assumed is that you have a proper  
2 sorting method, and, by sorting method, we mean that, for  
3 example, if you had let's say ten fish to sell, you would be  
4 able, presumably, to auction them off and to make certain that  
5 each fish would go to the person that is willing to pay the most  
6 for it.

7  
8 Let's say if I wanted to sell a home or an asset, I would make  
9 sure that the asset goes to the person that is willing to pay me  
10 the most for that asset, for me to recoup as much as I can.

11  
12 The problem that we have in the recreational sector, or the  
13 challenge, I should say, is that we do not have a sorting  
14 mechanism. By that, I mean that we are managed under open  
15 access, and it means that the red snapper may be caught by  
16 someone like me, who perhaps places a very low value on the  
17 fish, or the fish, the same fish, could have been caught,  
18 perhaps, by someone like a fisherman here in this room who would  
19 place a higher value on the fish.

20  
21 If we were able to make sure that the highest willingness to pay  
22 catches the fish first and then you go down from there, then  
23 that would be very helpful, but, again, on the studies that I  
24 have seen so far, a recreationally-caught fish is worth more  
25 than a commercially-caught fish at the margin. I hope this  
26 answers your question.

27  
28 **MR. BROWN:** Basically, what you just said there, and from our  
29 knowledge of the Deepwater Horizon, it would probably be better  
30 off just to unplug all the oil wells and let the Gulf be  
31 polluted, because that would probably be the highest value.

32  
33 **DR. DIAGNE:** No, I didn't say that. I said that, after the oil  
34 spill, because somebody brought in a lot of crews and a lot of  
35 resources were spent to clean it up, that, in turn, generated  
36 tremendous economic impact, but the net result is we damaged the  
37 ecosystem, and we did certainly damage certain stocks and so  
38 forth. That was just to say that, looking at the big number,  
39 when it comes to economic impact, does not necessarily mean that  
40 it is good for us.

41  
42 **MR. LANDGRAF:** Is it fair to say that, as the snapper creel  
43 limit has went down over the years for recreational from  
44 whatever it was, six, five, four, three, two, that the two fish  
45 is worth a lot more than the six fish was, correct?

46  
47 **DR. DIAGNE:** That's an excellent point too, and yes. What I  
48 want to offer is that there is an assumption in economics, but

1 we just have to look at kids, I guess, and maybe ourselves, to  
2 realize that it is true. The more you get of something, the  
3 less you value it, and so, if you give me let's say six fish,  
4 the first fish would have a very high value, but then the  
5 marginal value would decrease.

6  
7 The second fish would be worth less than the first, and the  
8 third fish would be less, and so on and so forth. To the extent  
9 that now you get only let's say two fish, let's say the first  
10 fish, presumably, will have the same value, but the second fish  
11 will be highly valued also, but a little less than the first  
12 fish, and I did mention kids in the sense that, if you were to  
13 give them a treat, or let's say a snack, they may take the first  
14 one, the second one, the third one, and, at some point, they  
15 will throw it back at you, essentially saying that I don't want  
16 this anymore, and so, yes, willingness to pay, marginal  
17 willingness to pay, are on a declining schedule.

18  
19 **MR. LANDGRAF:** I would also add that being able to catch less  
20 fish, to me, in this scenario, value and cost are proportional.  
21 What I would have paid to catch six fish has now quadrupled,  
22 because now my cost to catch two fish is three times higher than  
23 catching six fish, right? The cost being higher, to me, as a  
24 recreational angler, I would argue that that has decreased the  
25 amount of anglers that are able to go out and fish.

26  
27 **DR. DIAGNE:** What it has decreased is the consumer surplus.  
28 Remember that when we talked about this that we looked at the  
29 maximum that you were willing and able to pay for the fish minus  
30 the cost that it took for you to catch the fish.

31  
32 If the maximum goes up a bit, but your cost, as you indicate,  
33 triples or quadruples, obviously that margin between the two, or  
34 that gap between the two, begins to shrink, and so your  
35 enjoyment, if you would, or the economic value that you derive  
36 from the fish, begins to shrink. Then, if you push that  
37 further, the net benefits to the nation are then lessened as an  
38 effect.

39  
40 I would perhaps offer another example. It may be intuitive, or  
41 maybe not, but let's say I go out to buy a home or a car, for  
42 that matter. A car, I guess, would be simpler. I purchase the  
43 vehicle, and I go back home. I don't think that I would go home  
44 and be happy and brag about the fact that I paid too much for  
45 the car.

46  
47 What would make sense is for me to say, well, I really got a  
48 good deal, and I paid as little as I could, because then,

1 presumably, I have money left over to turn around and do other  
2 things. I don't know anybody who is happy to have overpaid for  
3 something that they bought, because then that, essentially,  
4 really puts a hole in your budget.

5  
6 Let's apply that same reasoning to catching a fish. I should  
7 not be really extremely, I guess, happy of overpaying to catch a  
8 fish. What makes sense is for me to value the fish at this  
9 level, but pay as little as I can, so that the gap between the  
10 two, or consumer surplus, is as wide as it can be.

11  
12 **MR. LANDGRAF:** I can tell you, from my own standpoint, when my  
13 wife asks me how much it cost to catch two snapper, she is not  
14 very happy.

15  
16 **DR. DIAGNE:** No, I would lowball the number.

17  
18 **CHAIRMAN CAPLINGER:** In the event that there is no season, are  
19 you suggesting that the fish decreases in value, maybe to almost  
20 worthless?

21  
22 **DR. DIAGNE:** No, I am not suggesting that at all. The value of  
23 the fish, really, is something that you look at in terms of the  
24 maximum that you would be willing and able to pay to catch it  
25 minus what it would cost you to catch the fish. Even if there  
26 is no season, that value is still there, and, by asking your  
27 question, I am reminded of the last part of his question,  
28 because he did mention non-consumptive values.

29  
30 I have to say that, typically, the analyses that we conduct do  
31 not do a whole lot of service to non-consumptive values. We  
32 just mentioned it in passing, and, in those, one could think  
33 about, essentially, those folks that would be happy to just see  
34 the fish swim in the Gulf of Mexico. That has value to them.

35  
36 There is another value, and this is the value of, essentially,  
37 leaving the fish to future generations. There are some people  
38 who are perfectly happy not harvesting the fish, because they  
39 know that this will contribute to a healthier stock for their  
40 children and grandchildren. All of those things are values, but  
41 very difficult, of course, to quantify, and so, typically, what  
42 we do is we base our analysis on consumptive values and then  
43 just mention, I guess, that there are other values out there,  
44 meaning non-consumptive values, which would include bequest  
45 values and the like.

46  
47 **MR. KENNEDY:** Could you possibly expand on -- Like deer hunting,  
48 you can't hunt wild deer commercially. If the fisheries was

1 like that, like instead of commercially catching red snapper in  
2 the wild, versus deer hunting, and so the value would  
3 significantly drop of the red snapper, correct, because you  
4 don't have the ability, and then recreational folks could  
5 actually go out and catch more fish, probably underneath the  
6 tonnage quotas for the year, and it would cost them a lot less  
7 money, if it was like on-land species that are consumed in the  
8 wild.

9  
10 **DR. DIAGNE:** I am not sure that we can make those inferences,  
11 and I believe that, in hunting and so forth, you have rationing  
12 systems, meaning you have lotteries and people draw numbers and  
13 this and that in various settings, and I don't know exactly what  
14 are the procedures for deer hunting, versus let's say duck and  
15 other things, but one of the issues, again, in recreational  
16 fishing is that, if someone is thinking about perhaps expanding  
17 access and so forth, it has to be what type of quality of access  
18 is one trying to offer and what is, I guess, a feasible  
19 expectation when it comes to the population in the Gulf of  
20 Mexico, the very popular touristic attractions and so forth,  
21 meaning the sheer number of people who want to have access to  
22 that resource, and that is, I guess, something for us to think  
23 about.

24  
25 One last thing that we would say is most of what we do is really  
26 concentrated and focuses on the federal aspect of things, but,  
27 needless to say, I guess the fish really do not recognize, I  
28 guess, state versus federal boundaries and so forth, and John,  
29 in his introduction, did talk about the harvest in state waters,  
30 which I think now accounts for up to 80 percent or so, maybe 70  
31 or 80 percent, of the recreational catches.

32  
33 I mean, those are some of the parameters, I guess, that one  
34 needs to think about in terms of really thinking about improving  
35 access and improving the quality of that access.

36  
37 **CHAIRMAN CAPLINGER:** Will you go back to your example and talk  
38 about the second bullet point of economic efficiency, because it  
39 suggests here that the policy should seek to minimize the cost  
40 of providing goods and services to consumers, and, if that is  
41 indeed the case, then I'm not sure we're doing that right now,  
42 because, if you go to your seafood market or your grocery store,  
43 red snapper is the most expensive fish in the box, and so, if  
44 we're trying to provide the cheapest -- Minimize the cost, and,  
45 if that is our goal here, then we're not achieving that as well.

46  
47 **DR. DIAGNE:** I don't know why you would conclude that we're not  
48 achieving that. I mean, essentially, really, in looking at net

1 national benefits, again, you have a difference between the  
2 maximum that you are willing and able to pay and the costs that  
3 you have to bear to participate in that activity, whatever the  
4 activity may be.

5  
6 Now, I mean, what you are mentioning is that fact that, when one  
7 goes to the seafood market or Publix, et cetera, and you look at  
8 a red snapper fillet, or another fish fillet for that matter, it  
9 is extremely expensive, but, here, we can begin to discuss other  
10 things, really. I mean, what type of demand is there for the  
11 product itself and what kind of a supply do we have?

12  
13 We have a fairly limited supply, if you look at it, and, in the  
14 big picture, the red snapper in the Gulf is a very small  
15 portion, if you would, when it comes to the seafood that we  
16 consume in this country. Most of it, I think in excess of 80  
17 percent or so, would come from imports, but the fact that on the  
18 shelf at Publix or the seafood market it is ten-dollars a pound,  
19 and, actually, I have seen, quite frankly, in terms of the  
20 fillet, more expensive than that, and I'm sure you have, and  
21 that does not really tell us a whole lot about the fishing part  
22 of this business. It tells us more about the demand for the  
23 product in the seafood market as well as the availability of the  
24 supply of the product.

25  
26 **CHAIRMAN CAPLINGER:** I get that completely, and I understand  
27 that that is an indication of the demand, but I guess my point  
28 is that, if this is what we're basing allocation on, maybe we  
29 should have less consideration for this. This should be a  
30 smaller part of the consideration, and we should look at, again,  
31 the overall benefit to the nation, which would be who is  
32 spending the most, what does the nation get, what is the best or  
33 highest value that the nation gets, for that ten-pound fish  
34 that's sitting in the middle of the room.

35  
36 **DR. DIAGNE:** Okay. I think now I follow you, and perhaps there  
37 is a misunderstanding in terms of the costs that we are  
38 referring to. When we are talking about allocation, the costs  
39 that we mentioned, when it comes to computing the surplus  
40 values, those are, let's say, for example, for the commercial  
41 fishermen, producer surplus, how much he or she will get paid  
42 for the fish minus the cost of the trip and catching the fish.  
43 It is the cost of harvesting that fish that we are referring to  
44 here.

45  
46 On the recreational side of things, it is the maximum that let's  
47 say a recreational angler is willing and able to pay for the  
48 fish minus the cost that he or she had to bear to harvest the

1 fish. That is the cost that we are talking about, and we were  
2 not talking about the cost to let's say anyone here going to  
3 Publix and buying the fish, although that is something to be  
4 considered, because, in terms of the chain of value, or the  
5 value chain, after the harvest, we need to look at the  
6 additional value created.

7  
8 For example, the wholesaler that buys the fish and then turns  
9 around and sells it to a retailer gets some more value, and,  
10 typically, we overlook that, because the data available to us  
11 may be lacking, but that would have added to the commercial  
12 value, if you would, and, on top of that, the value that let's  
13 say a consumer like myself gets from purchasing the fish in  
14 Publix and offering, let's say, a meal to my family, there is a  
15 difference there in value that I get, and, on top of that, the  
16 value that one of us gets when we travel, let's say, to a city  
17 on the Gulf, and let's take New Orleans, which is known for its  
18 cuisine and seafood and so forth, the value to restaurant  
19 owners, because you added value to the fish and so on and so  
20 forth.

21  
22 I have to say that we are challenged in finding the data along  
23 the value chain from harvest to plate, if you would. On the  
24 recreational side, we are challenged in defining the value of  
25 the fish let's say to the recreational angler, because there is  
26 no market transaction, and so, essentially, we have to resort to  
27 other techniques, and those are non-valuation techniques, and  
28 you use proxies for it, such as how much one paid for the travel  
29 to the site and so on and so forth, or your design experiment.  
30 I guess there was a little misunderstanding, and maybe I didn't  
31 make it clear, in terms of which costs would apply where.

32  
33 **CHAIRMAN CAPLINGER:** Thank you, and I guess the last question I  
34 had was it says economic impacts should not be the primary basis  
35 for allocation decisions and that will likely reward inefficient  
36 producers. Well, the recreational angler is the inefficient  
37 producer. We are not good, as good, as efficient, as a  
38 commercial fisherman, and so, clearly, we are going to spend a  
39 lot more per pound of fish that we catch.

40  
41 **DR. DIAGNE:** On the flip side of that, I did say that, at the  
42 margin, the value of a recreationally-caught fish is higher than  
43 the value of a commercially-caught fish, but, in general, the  
44 point that you made, yes. If we look at economic impacts alone,  
45 then you would reward inefficiency, because, the more money you  
46 spend, the more impacts you generate, but, as a nation, our net  
47 benefit is to be as efficient as we can, so that you can take  
48 leftover resources and go do something else, and that is the

1 main reason why, for allocations and other policy choices, you  
2 look at net national benefits.

3

4 **CHAIRMAN CAPLINGER:** Thank you.

5

6 **MR. MARQUEZ:** I would like to say one thing. It seems to me  
7 that we started this discussion in talking about how we can kind  
8 of compare apples, and, when you start talking about the  
9 economic benefit of the fish and efficiencies, we're not  
10 comparing the same things in a recreational fishery and a  
11 commercial fishery.

12

13 That seems, to me, to assume it's all about what is the value of  
14 how quickly we can put that fillet in the market, or on the  
15 table, at the least cost, and what it doesn't take into account,  
16 from the recreational standpoint, is it's the experience. It's  
17 the value of fishing. It's the ability to go out and fish.  
18 That value is greatly diminished if there is no opportunity to  
19 go and catch fish. It's not necessarily about a pound-for-pound  
20 value, and so you're really not comparing the same things.

21

22 The other is that, and this is just, I guess, my ignorance until  
23 this morning, this standard of a national -- What's the benefit  
24 to the nation, and it seems that any economic analysis, if  
25 that's the standard, you just wipe out any benefit of a  
26 recreational fishery, because you have this standard that money  
27 is fungible, and, if they don't spend it on recreational  
28 fishing, they will just go spend it on something else, and so it  
29 just totally discounts the value of the recreational fishery  
30 unless you bring that analysis down to some lower level, as in a  
31 state.

32

33 I know, in my state in Mississippi, they would look at the value  
34 of tourism and bringing all those people to the coast, and that  
35 benefits the entire state. It certainly benefits those local  
36 communities. To somehow look at recreational fishing and say,  
37 well, if we didn't have it, it wouldn't really matter, because  
38 they could go back to Arkansas or Missouri, all these people  
39 that were fishing, and they would just do something else, they  
40 would go river-rafting, and I don't quite understand that. It  
41 seems to just remove any value of economic analysis in this  
42 fishery.

43

44 **DR. DIAGNE:** All right, and very good points, but those are not  
45 really the implications. Let us start with the benefit to the  
46 nation, the fact that the experience of fishing has value on its  
47 own, going out on the water, open water, with family and friends  
48 and so forth. Absolutely, but that in itself is captured in the

1 maximum that one is willing and able to pay for the fish.

2  
3 It is in it, and the experience itself is part and parcel to  
4 determining that value. It is embedded in it, and, if that  
5 value, I guess, were really the most of the value of the fishing  
6 experience, then presumably we could just move to a catch-and-  
7 release fishery, because the experience is what it is that we  
8 value the most, and obviously that is not the point.

9  
10 When we look at allocation, we absolutely compare apples to  
11 apples, even though the data that we have may be lacking on both  
12 sides of this, because what we are comparing is, again, economic  
13 values.

14  
15 On the recreational side, where does value come from? It comes  
16 from two places, from the consumer side, and I say consumer  
17 because we use it in a general, and I say from the angler side  
18 as a consumer surplus, and, again, that difference between that  
19 maximum willingness to pay minus the cost of harvesting the  
20 fish. That's consumer surplus, and, to that, you add the value  
21 that for-hire operations enjoy, meaning producer surplus, which  
22 is the difference between how much they get paid minus the cost  
23 of providing the trip, and so these are economic values.

24  
25 You take economic values on the commercial side, and, normally,  
26 you should follow the fish until its final consumption point,  
27 which is presumably when you go to a restaurant and buy it at  
28 the table, but we don't have the data to see really the added  
29 value that the restaurant owner puts on that fish, meaning  
30 buying the fish and preparing it, et cetera, and putting it on  
31 the plate.

32  
33 We don't have good data on the lower step, if you would, from  
34 that wholesaler who bought the fish and brought it to the  
35 restaurant owner. What we have is we have the data at the  
36 harvesting level, essentially, how much did it cost the  
37 commercial fisherman to harvest the fish and what is it that he  
38 or she gets for it, and one more thing that we have to say -- I  
39 mean, the Magnuson Act is careful in saying that all the  
40 economics is a part of the discussion when it comes to  
41 allocation and it should not be the sole justification, and so  
42 we have to look at the other things than how it would impact  
43 different communities and related businesses and so forth.

44  
45 It is a piece of it, but it is not the only thing when it comes  
46 to making allocation decisions, and none of this discussion  
47 really implies that recreational fishing has no value. To the  
48 contrary, there is a lot of economic value generated by the

1 recreational sector, and I would repeat that again. There is a  
2 lot of economic value, and that is the proper metric to looking  
3 at allocation.

4  
5 Economic impacts, unfortunately, are not. They are big numbers,  
6 but they are not, because allocation is about efficiency, and so  
7 you need economic value. Economic impact is about how much  
8 money has been spent and where do those dollars flow in the  
9 economy. You buy let's say bait and fuel and ice, and then the  
10 person turns around and pays his workers, and those workers go  
11 to the supermarket and buy things and so on, and the dollar  
12 circulates, essentially, and that will give you a measure of  
13 economic impact.

14  
15 **DR. ROY CRABTREE:** You get some sense, from this discussion, as  
16 to how complicated this whole issue gets, and trying to get at  
17 benefits and surpluses and all the things that Assane is talking  
18 about -- It's not that hard to understand how you get there on  
19 the commercial side, and even the charter side, but, with  
20 recreational fishermen, it's a lot more complicated, because  
21 there is value in just the pleasure and the fun that people get  
22 out of fishing. The problem is how do you put a number on that,  
23 and so how do you monetize the pleasure that people get from  
24 fishing?

25  
26 Well, they come up with surveys that ask all kinds of questions  
27 about how much would you be willing to pay for this and that,  
28 and so the willingness to pay number that you come up with is  
29 effectively trying to get at that, but, complicating all of this  
30 -- Like you said, there are all kinds of tensions and competing  
31 things going on. Like, if the bag limit is too low, you get  
32 into this issue of how much did you spend to get to catch one  
33 fish, but, if you raise the bag limit, you catch up to the  
34 annual catch limits faster, and you get fewer days, and that  
35 cuts back on the amount of opportunity you get to go fishing,  
36 and so that starts getting into all the complications of it.

37  
38 We could get you more days by lowering the bag limit, but then  
39 you're going to pay more per fish on it, and so the whole thing  
40 is a really -- In my opinion, understanding the nuances of what  
41 net benefits really mean and how it applies to recreational  
42 fisheries is one of the most difficult concepts to wrap your  
43 head around in fisheries, and that's partly why we argue a lot  
44 about allocations, but we haven't made a great deal of progress  
45 on it, and it's also, in my personal opinion, one of the  
46 problems we have when the litigation comes, because then you go  
47 in front of a federal judge, who doesn't really know anything  
48 about this stuff, and you try to explain it to them very quickly

1 and in a very short brief, and they may or may not understand it  
2 and they may or may not come to a decision that makes sense to  
3 you.

4  
5 It is a complicated concept, but, with red snapper at least, in  
6 general, the willingness to pay numbers are higher on the  
7 recreational side than they are on the commercial side, which  
8 might indicate that you could increase net benefits by some  
9 level of reallocation towards the recreational fishery.

10  
11 The problem we get into is no one can really tell us what the  
12 magic allocation that maximizes all of that is, and no one can  
13 really tell us how much should you reallocate, and that's part  
14 of the dilemma. There's just not a clear-cut way that is easy  
15 to wrap your head around to figure out what would be the magic  
16 allocation that would maximize all of this stuff, and so I think  
17 it's a good discussion, but it is a very tricky concept to  
18 really get your head around.

19  
20 **MR. MARQUEZ:** Could I ask one other question? We talked about  
21 just this straight sort of a dollar value here, and the idea  
22 that the economics shouldn't play the lead role. I don't think  
23 that it says that it shouldn't play any role, but, within that,  
24 you indicated that they're supposed to consider the impacts on  
25 local communities as one of the items of consideration, and can  
26 you give us any insight on sort of how that folds together when  
27 you get into the decision-making process, because I think this  
28 goes exactly to the point that Jim Brown was making earlier.

29  
30 Although the national net benefit may be sort of a wash if all  
31 these folks from Georgia just stay in Georgia and spend their  
32 money there, but the impact to that community is severe if they  
33 don't have that quota and they don't have those fishermen there.

34  
35 **DR. DIAGNE:** In making a decision comparing management  
36 alternatives, a variety of factors, of course, would be  
37 considered, one of which being the economics, and I believe that  
38 Dr. Lasseter, when she discusses a few issues with you, will  
39 talk about some of the social implications as well of the  
40 management alternatives.

41  
42 If you have let's say two alternatives of equal contribution  
43 when it comes to net benefits, you would look at the one that  
44 would do the least -- That would be the most beneficial to small  
45 communities, I guess, particular communities, in making the  
46 decision, but how do you balance all of these competing aspects?  
47 That is more, really, the purview of the council, if you would.  
48 We provide the information and say that, in terms of economic

1 benefits and business activity, which are the impacts, these are  
2 the numbers that we have. Then, in terms of, I guess, the  
3 biological effects, these are the implications, in terms of  
4 social effects, these are the implications, and then you can  
5 have the cumulative effects, et cetera, and so forth, but, at  
6 the end of the day really, the difficult and challenging  
7 decisions, those are the purview of the council. They are the  
8 ones that take in the information and balance all of those  
9 different aspects and come up with their final decision as to  
10 how they want to manage.

11  
12 **DR. FROESCHKE:** Are you going to finish your allocation slides?

13  
14 **DR. DIAGNE:** I think that was it, or is this one mine? I  
15 thought that this was --

16  
17 **DR. FROESCHKE:** I can do it, or you can do it, whatever you want  
18 to do.

19  
20 **DR. DIAGNE:** It's the same, and I think I may have a nicer  
21 voice, and so I will just give this to you.

22  
23 **DR. FROESCHKE:** If you recall, at the last meeting, you did ask  
24 for some additional information about how the allocations that  
25 we do have were arrived at, and so I just put together a few  
26 quick slides.

27  
28 The first bullet, how the commercial and the recreational  
29 allocation was determined, that was one question, and then,  
30 within the recreational sector, how the apportionment between  
31 the for-hire and the private rec for sector separation, how that  
32 was done, and so we have a couple of diagrams.

33  
34 Then the most recent allocation adjustment, which was overturned  
35 by the courts, and we can touch on that a little bit, but I will  
36 probably have to defer back to Assane, but, originally -- Well,  
37 I will start by the commercial to recreational allocation is 51  
38 percent commercial and 49 percent recreational.

39  
40 This has been for a very long time. It was established in 1990  
41 in Reef Fish Amendment 1. We're in the 50's now on these  
42 amendments, and so if you're keeping score, but this was based  
43 on landings, and that's typically how, fisheries that are  
44 allocated, that's how they're done. What was done was a  
45 calculation, essentially, of the landings between 1979 and 1987,  
46 and, essentially, they were tallied up for each sector and taken  
47 an average, and it was 51/49, essentially.

48

1 That's where we were. In 2015, there was a Reef Fish Amendment  
2 28 that did modify the allocation to 48.5 commercial and 51.5  
3 recreational. However, that was overturned by a judge, and so  
4 it reverted back to the commercial and recreational. As sort of  
5 the nuts-and-bolts of how those numbers were arrived, it sort of  
6 encapsulated all the information that Assane discussed.

7  
8 There really isn't information to get too far away from what we  
9 have, based on what we have, because it's really at the margin,  
10 and so, in terms of the -- If you think back to just the quota,  
11 we have the recreational allocation is 49 percent, and then, of  
12 that, in the sector separation amendment, it was further sub-  
13 divided into 42.3 percent for the for-hire and 57.7 for the  
14 private, and, again, that was a -- There was a landings series  
15 that was used, and I think it was 1986 forward, through 2009,  
16 and I can check that number.

17  
18 Essentially, the way it's done is you take -- There is two parts  
19 to it. You take the whole time series, and then the most recent  
20 years are doubly-weighted, if you will, and an average was  
21 computed, and that's how it was done, and that's fairly typical  
22 of how we've done it in the past for other species.

23  
24 In terms of just to kind of circle back, this was a little bit  
25 intended to build off of Dr. Shipp and what he was likely to  
26 say, but, just to kind of re-orient everyone, in the flow chart,  
27 Congress develops the rules that govern federal fisheries  
28 management.

29  
30 What we operate under is the Magnuson, and this is sort of where  
31 we can play. Rules and bills and things that operate above that  
32 level are not in our purview, and so we typically don't go  
33 there. That's not to say that you can't, but we don't, because  
34 we're not allowed to, and so we are constrained to what's  
35 allowed under the Magnuson Act.

36  
37 From that, sort of NOAA and the council work together, with  
38 public input, to establish fishing regulations, which are  
39 implemented by the Department of Commerce. Just to kind of re-  
40 orient yourself to how this process works, occasionally we might  
41 remind you of this is not something -- That's a great idea, but  
42 it's not in our purview, and that might happen, and that's just  
43 the way it is, and I apologize.

44  
45 At this time -- I think questions have sort of come up as they  
46 have been mentioned, but, if you have any other ones, we can  
47 take them now. Otherwise, we have some other stuff for you.

48

1 **MR. ANDRY:** John, you had talked a little while ago about the  
2 different states' methods of surveys, and it comes up with this,  
3 with the allocation process. I am guessing all those  
4 allocations were based upon the MRIP surveys?  
5

6 **DR. FROESCHKE:** No, not necessarily, because, for example, there  
7 is no MRIP survey in Texas.  
8

9 **MR. ANDRY:** Right.  
10

11 **DR. FROESCHKE:** There are different options, but what is done  
12 for the various states is their numbers are estimated with the  
13 various programs, and there is sort of a calibration to make  
14 sure that everybody is operating on the same currency, and so  
15 there is some calibration that's done.  
16

17 Then, for example, the headboat is a Southeast Region, but  
18 primarily it's the same program throughout Texas to Florida, and  
19 so, in terms of estimating the total recreational landings,  
20 those individual components are summed.  
21

22 **MR. ANDRY:** When we get into some of the state-based survey  
23 programs, how are they aligning with what MRIP has put out there  
24 in the past? Are there some states that are doing a better job  
25 than others with their individual survey programs?  
26

27 **DR. FROESCHKE:** Well, I will caveat this with essentially you're  
28 calibrating two unknowns. I mean, there is a total estimate of  
29 fish, dead fish, that were removed, and we will never know  
30 precisely that number.  
31

32 The MRIP is currently the standard, and these other programs are  
33 referenced in lieu of that, and so the way that we try to  
34 understand this is what's called a PSE, or percent standard  
35 error, and the idea is that, the more precise your estimate, the  
36 less uncertainty is associated around that, and we think that's  
37 likely to be a better estimate.  
38

39 Each of the states are in various processes of getting their  
40 various programs certified through MRIP, which essentially says  
41 that MRIP has reviewed the methodology and they have agreed that  
42 this is a reasonable and appropriate method to estimate landings  
43 from the fishery and that these numbers can be used in the  
44 management process.  
45

46 As you can see, if you look in the various state presentations,  
47 the methodologies are different, and that is by design.  
48 Different regions have different needs and different amounts of

1 resources and things to direct at the fleet, and so it is very  
2 complicated.

3  
4 **DR. CRABTREE:** Hughes, are you trying to get -- Are you asking  
5 how do the magnitudes of the federal survey compare to the state  
6 survey and individual states?

7  
8 **MR. ANDRY:** Yes, I am.

9  
10 **DR. CRABTREE:** In Louisiana, we ran LA Creel and the MRIP survey  
11 side-by-side in 2015, and the LA Creel red snapper catch  
12 estimate was 2 percent higher than the MRIP catch estimate for  
13 red snapper, and so they're very close.

14  
15 Mississippi has done Tails and Scales estimates for two years.  
16 One was lower than the MRIP estimate and one was higher than the  
17 MRIP estimate, but the MRIP estimate for the State of  
18 Mississippi is extremely uncertain, because they catch very,  
19 very few snapper.

20  
21 The biggest disparity we've seen consistently has been with  
22 Snapper Check in Alabama. The for-hire estimate that Alabama  
23 produces is fairly close to the MRIP for-hire estimate, but the  
24 private catch estimate from Snapper Check has been about half,  
25 about a million pounds less, than the MRIP estimate.

26  
27 Now, the issue with Snapper Check is there is a fair amount of  
28 non-compliance with Snapper Check and people who are supposed to  
29 report and they just don't, and so there's an expansion factor  
30 that's applied to the estimate to account for that, and,  
31 depending on what expansion factor you use and how you do it,  
32 you can get very different catch estimates, and so that's the  
33 biggest thing that's being looked at with Snapper Check by these  
34 external statisticians as part of the review methodology.

35  
36 Now, Florida is working on a reef fish endorsement that they  
37 would use to modify the effort survey, and the last report I  
38 heard from them was that the estimates were comparable to the  
39 MRIP numbers, but I don't think their survey is very stable yet,  
40 and they're not really releasing the estimates with any  
41 confidence.

42  
43 Then, overlaid on all of this, is they have changed the way the  
44 effort survey is done. In the past, it was a telephone survey  
45 that asked how many times did you go fishing in the last sixty  
46 days, and they're switched, as of this year, to a mail survey,  
47 and the reason for that is because of cellphones and caller ID  
48 and nobody answers the phone anymore, and so the statisticians

1 say a mail survey is the way to go.

2  
3 The pilot studies on that have consistently produced much higher  
4 estimates of effort than the telephone survey, and so that would  
5 indicate that MRIP is underestimating catches across the board.  
6 The bottom line of all that is there is no clear pattern in  
7 looking at the state surveys. Some are producing higher  
8 estimates and some lower and some pretty close, and the biggest  
9 disparity is in the private sector Snapper Check estimate with  
10 Alabama. That is still being looked at to try and understand  
11 what it means.

12  
13 **MR. BROWN:** Going back to the allocation, and I'm sure this has  
14 probably been asked plenty of times, but, by using thirty or  
15 forty-year-old data for landings, for commercial and  
16 recreational, the commercial fleet has probably, I would guess,  
17 halved from what it was thirty or forty years ago, the number of  
18 commercial boats involved in the commercial fishery, and the  
19 number of recreational boats has probably doubled during that  
20 time.

21  
22 You have taken this 51/49 split and you've given 51 percent to  
23 fewer people and 49 percent to more people, and that seems to be  
24 out of whack, and I'm sure that that's been the discussion of a  
25 lot of folks, and I was wondering if there was any weight given  
26 to the changes in numbers.

27  
28 I mean, you can look at historical boat registration data, and  
29 you can look at state-by-state license issues and federal  
30 license issues and see that there has been a drastic change in  
31 those numbers, which seems like that needs to be updated, and I  
32 don't know if you have discussed that recently or not.

33  
34 **DR. DIAGNE:** I just would want to, I guess, maybe add one point,  
35 and that was a very good question. We have to look at, really,  
36 the final use of the products that we are talking about. As a  
37 recreational angler, when I harvest a red snapper, then I will  
38 presumably take it home and prepare it and have a meal and so  
39 forth, if I am so lucky to catch it.

40  
41 As a commercial fisherman, once the fish is harvested, it goes  
42 through the channels, and so, if we are comparing really numbers  
43 of consumers, and I put that in quotes, the right metric is not  
44 the fleet that's harvesting the fish, but the final customers  
45 that are going to eat those fish harvested on the recreational  
46 side.

47  
48 Although the number of anglers has certainly increased, and I

1 think you said double, and it's probably more than that, but, if  
2 we look at consumption of let's say seafood products, we could  
3 also as well argue that the final customers, the consumers of  
4 those products, have definitely increased, and so, looking at  
5 the size of the fleet, I think that misses a part of the  
6 picture, in the sense that those fish are destined to go to  
7 market and be used by a much larger population, if you would.

8  
9 **MR. BROWN:** But that also gets back to looking at the economic  
10 piece that -- Other than the price has probably increased for  
11 red snapper, it's that the commercial side stays stagnant,  
12 because, even though the fleet size doesn't change, the number  
13 of fish, I guess, or the price is somewhat similar, but, when  
14 you're adding more users on the recreational side, that  
15 increases the value of what was talked about earlier of that  
16 individual fish, and the value increases dramatically, because  
17 now you have more people spending more money to catch that fish.

18  
19 That would seem, to me, that you would want -- It would be a  
20 greater benefit to the nation by having more folks participate  
21 in spending more money catching the fish than what is basically  
22 stagnant on the commercial side.

23  
24 **DR. DIAGNE:** There is some validity to one side of what you just  
25 said. Absolutely there is more recreational anglers, a higher  
26 demand for harvesting these fish, and so presumably that should  
27 be translated into a higher willingness to pay on the  
28 recreational side, and, as I said before, based on all of the  
29 studies that I have seen, at the margin, the value of a  
30 recreationally-caught fish is higher than that of a  
31 commercially-harvested fish. There is no question there.

32  
33 The problem is that, once you stray from that margin, you don't  
34 know what happens, and so, if it were, let's say, to tweak  
35 allocation around the margin, which I guess we are now at 51/49,  
36 51 commercial, and slightly tweak around that, you would have  
37 ample justifications, based on the consumer surplus and producer  
38 surplus numbers, economic value numbers, that we have, but, if  
39 you want to make wholesale changes, a large swing in allocation,  
40 no one knows how those values are going to change, and that is  
41 one of the challenges, and, again, let's say on the commercial  
42 side, we should really look at the fish and follow it to its  
43 final destination, which is not, of course, the commercial  
44 vessel, but is on a plate in someone's home or in a restaurant.

45  
46 **MR. BROWN:** On the recreational side, do you follow that,  
47 because, when I look at like say Florida's numbers, they have  
48 like recreational saltwater fisheries at a \$7.6 billion economic

1 impact. When they talk about commercial fisheries, it's in the  
2 millions of dollars.

3  
4 **DR. DIAGNE:** I think that, not to go back to the discussion that  
5 we had, and I think we settled the discussion that economic  
6 impacts are not the right place to look when we are talking  
7 about allocation, and the recreationally-harvested fish  
8 absolutely is followed.

9  
10 I mean, unless there is something that we missed, but, once a  
11 recreational angler harvests a red snapper, that is the end of  
12 the activity. She would take it home, and, as far as I know,  
13 sales are not allowed for recreationally-caught fish. She would  
14 take it home and enjoy it and prepare it and share it with  
15 family and friends and so forth, and that's that, and so we do  
16 follow that, absolutely.

17  
18 Where we fall short is in following the commercially-harvested  
19 fish because of a lack of data. Once the fish are harvested,  
20 they are then sold, presumably, to a dealer, who turns around  
21 and sometimes even resells it to a wholesaler, who then supplies  
22 the restaurants and grocery stores and seafood markets that they  
23 have.

24  
25 Once the fish reaches a restaurant, the restaurant prepares it  
26 and adds value and puts it on a plate in front of a customer,  
27 and so that is where we are lacking when it comes to following  
28 really, if you would, the value chain, but, in the recreational  
29 sector, I believe we do that, and, as Dr. Crabtree mentioned,  
30 our challenge really is in determining the right willingness to  
31 pay, because there are not market transactions, and so we have  
32 experiments and surveys asking people questions and looking at  
33 the money they spent in travel. There is a section of models  
34 that are known as travel costs, essentially, that reveal the  
35 preference.

36  
37 I don't know how much you are willing to pay, but I am going to  
38 base my estimate on something that you have revealed to us by  
39 looking at how much you spent to travel there and catch the fish  
40 and so on and so forth.

41  
42 **CHAIRMAN CAPLINGER:** Roy.

43  
44 **DR. CRABTREE:** But I think part of what you were touching on,  
45 Jim, is the world has changed a lot in the last forty or fifty  
46 years and why is the mix of the fishery back in the 1970s and  
47 1980s relevant to what the allocation ought to be today, and, to  
48 make that even more complicated, all of the catch estimates have

1 been revised multiple times over the years, and so, if you look  
2 at the current catch estimates from that time period, they don't  
3 add up to 51/49 anymore. That was the catch estimates the  
4 council had in front of them when they did this in 1990.

5  
6 To make it even more complicated, the survey doesn't even  
7 support 1979 or 1980 anymore, and so there's not a good way to  
8 even adjust those estimates anymore, and so there is no question  
9 there is a need to review the red snapper allocation and see  
10 what it ought to be today and make it more relevant to the way  
11 the world is today. The difficulty is there is no clean way to  
12 know what it should be, and that makes it very contentious and  
13 very difficult.

14  
15 **MS. RALSTON:** I appreciate those comments, Roy, and I think that  
16 is exactly what Jim was getting at, that forty-year-old  
17 information needs to be updated. If you all can help me out,  
18 but I'm thinking back to the allocation amendment, Amendment 28,  
19 that was challenged in court, those allocations were -- The  
20 shifts in allocations were being suggested because of original  
21 discrepancies or --

22  
23 **DR. CRABTREE:** That was because of a shift that was made in the  
24 way the dockside intercepts are done and changes in the way the  
25 people who do the dockside intercepts are told when to go do it  
26 and where to go do it, and, when they changed it, it resulted in  
27 higher estimates of the recreational catch, and, since the  
28 belief was that the allocation is based on what the historical  
29 mix in the fishery is, if the recreational catches have been  
30 higher historically, that increase ought to go to the  
31 recreational fishery.

32  
33 It's like if you had a fishery that everything indicated it was  
34 healthy and you catch a hundred pounds a year and it's allocated  
35 50/50 and everybody gets fifty pounds, what if you found out one  
36 day that one sector was actually catching a hundred pounds, and  
37 always had been catching a hundred pounds, and so the catches  
38 have actually been 150? Well, all your data says the fishery is  
39 healthy, and so you say, okay, the total allowable catch will be  
40 150 pounds.

41  
42 If you allocate it out 50/50, that means that everybody gets  
43 seventy-five, and so the guys who have been catching a hundred  
44 all along are going to get cut, and the guys who were catching  
45 fifty are going to get an increase, and so that's what we tried  
46 to correct.

47  
48 The judge said that, well, the trouble with this is it can only

1 go one way, and there is no way that it would ever result in the  
2 commercial fishery getting more fish, and so it's not fair and  
3 you can't do it, and that's wrong, because it could have come  
4 out, when we changed the survey, that the recreational guys were  
5 actually catching fewer fish than we thought, which would have  
6 indicated that we should allocate more to the commercial guys,  
7 but that nuance escaped the court and they made their decision.  
8

9 **MS. RALSTON:** Along those lines, I think it would be a very  
10 worthwhile exercise for the council to revisit reallocation of  
11 red snapper between the commercial and the recreational sector,  
12 and I think that's something that this AP could consider as a  
13 recommendation and perhaps to more fully explore it, because my  
14 understanding too of that court decision was that they felt that  
15 the council also needed to provide some additional rationale,  
16 and I think there's a way that you could structure that  
17 reallocation discussion, or allocation discussion, that would  
18 include all of those components.  
19

20 **CHAIRMAN CAPLINGER:** If I want to stir the pot even further with  
21 allocation, which we clearly have an issue with, I think we've  
22 hit the limit on what people are willing to pay to catch a red  
23 snapper when we divided recreational anglers from private boats  
24 into two groups, recreational anglers on charter boats, those  
25 the same as the recreational anglers catching those fish, but  
26 now the amount that those anglers are spending for a charter to  
27 catch two fish may have pushed us to that limit where people say  
28 enough and I can't spend it anymore.  
29

30 Maybe that's why the charter catch has been lower than, I guess,  
31 the quota, or under the quota, and so I don't -- Other than  
32 fixing a problem with the poor charter captains who bought  
33 permits and then were not able to fish for that period of time  
34 when the season shrunk so low, I don't really see a reason, and  
35 I have a big problem with dividing the recreational anglers into  
36 those two groups.  
37

38 I know it probably helps you, because you get a better idea of  
39 what recreational anglers are catching, because they have a  
40 tighter reporting method, and is that right, Dr. Crabtree?  
41

42 **DR. CRABTREE:** Well, the effort estimates for the for-hire  
43 survey I think are more precise, and probably less biased, than  
44 the effort estimates for the general recreational survey,  
45 because it's a smaller universe of captains, and we know who  
46 they all are, because they have permits.  
47

48 **CHAIRMAN CAPLINGER:** I guess my point is that I think this whole

1 program was set to fix that problem with these guys who spent a  
2 ton of money buying permits and were not able to use them.

3  
4 **DR. CRABTREE:** Well, where this came from was a result of the  
5 extended state-water seasons, and we had a rule that's been in  
6 place for many years, and it's in place for most of our  
7 fisheries, that says, if you have a federal permit, you have to  
8 abide by the federal rules, regardless of where you're fishing.

9  
10 When the states started opening up state waters, the charter  
11 boats could only fish when federal waters were open, and that  
12 meant that, as more and more of the quota got caught up in state  
13 waters, the charter boats were getting squeezed out of the  
14 fishery, and so we went from a fishery that historically had  
15 been roughly 50 percent caught on charter boats and 50 percent  
16 caught by private anglers to a situation, I think in 2013, when  
17 around 80 percent of it was caught by private anglers, and the  
18 charter boats were below 20.

19  
20 People whose only access to the fishery is to go out on charter  
21 boats, people who don't have boats or whatever, were getting  
22 squeezed out of the fishery, and so the council -- One of the  
23 jobs the council has is to make sure that everyone has fair and  
24 equitable access, and so the council came in and set an  
25 allocation in order to resolve that problem and shift the mix of  
26 the fishery back to something that was close to what it  
27 historically had been with fish caught on charter boats versus  
28 fish caught by private anglers, and that's where it came from.  
29 Had we not had differences in the state-water seasons and the  
30 federal-water seasons, I don't think that it would have ever  
31 happened.

32  
33 **CHAIRMAN CAPLINGER:** I agree, and I would suggest that the  
34 states didn't create this problem. I would suggest that the  
35 state seasons increased as a result of the federal seasons that  
36 have been dramatically decreased, and I appreciate the problem  
37 you were in. You're having to follow the constraints of the  
38 law, but the states did not cause this. This was a federal  
39 issue, and we can debate forever, but --

40  
41 **DR. CRABTREE:** It's a chicken-or-the-egg.

42  
43 **CHAIRMAN CAPLINGER:** What I'm saying is that, if we continue  
44 along this path that we have been on, and I think we're here to  
45 fix that, the problems with the federal system have caused the  
46 rest of the Gulf, the states, to try and address it. That's  
47 all.

48

1 **DR. CRABTREE:** The only thing I would point out to you is the  
2 reasons for the federal season getting short are multiple and  
3 complicated, and one of the problems we have is we're doing  
4 things that make the season even shorter, even though what we  
5 say is we want to make the season longer, and so it's a  
6 complicated thing.

7  
8 There is no getting around that, if states open up more state  
9 waters, that causes the federal season to get short. If we  
10 engage in activities that increase catch rates, such as putting  
11 out artificial reefs, that results in the season being shorter,  
12 and so it's an odd situation, where we're doing things that work  
13 counter to what I hear all the time, which is we want a longer  
14 federal season.

15  
16 Somehow, we've got to bring all of these things into alignment  
17 and decide what do we really want, and there's a bunch of ways  
18 that you can get to a longer federal season, but we're all over  
19 the map on it. I think it's broader problem than people  
20 generally think about it.

21  
22 **CHAIRMAN CAPLINGER:** Well, it comes back to the system is  
23 broken, and, if we keep saying, well, we have to work within the  
24 constraints of the system, then we're not going to get anywhere.  
25 The system -- We have heard repeatedly, and this is going into  
26 another subject, but we've heard repeatedly that the Gulf of  
27 Mexico, or at least the western Gulf of Mexico, is probably as  
28 healthy as it has ever been, and we can't probably get to a much  
29 higher population, and so those are the things that frustrates  
30 anglers, when clearly the federal season dropped, continued to  
31 be reduced, over time, and that's created the frustration.

32  
33 **DR. CRABTREE:** That's a great point, but I don't think that has  
34 anything to do with the system being broke. I suspect that the  
35 western Gulf is rebuilt and it's healthy. There is nothing  
36 preventing the council to managing red snapper as two stocks,  
37 western Gulf and eastern Gulf. If they did that, I suspect you  
38 would have robust fisheries off of Louisiana and Texas, with a  
39 lot of days.

40  
41 What is happening right now is the western Gulf is paying a  
42 price for the high catch rates in the eastern Gulf. Most of the  
43 fish caught recreationally in this fishery are caught off of  
44 Alabama and the Panhandle of Florida. I bet you 80 percent of  
45 the catch occurs in that small stretch of coast, and so you're  
46 losing days in the west because they're catching so many fish in  
47 the east, but there is nothing in this system that prevents the  
48 council from addressing that, but it's just getting the votes

1 and the politics of doing it.

2  
3 **MR. BOYD:** That's the key, is the politics. When you go to  
4 Florida and you talk to Florida about separating it into two  
5 stocks, they glaze over and won't talk to you anymore. I mean,  
6 that's what we see at the council level, is that it boils down  
7 to the politics of the fishery, and, to what you were talking  
8 about a minute ago, I will give you my own analogy on the  
9 chicken-and-the-egg problem with the fishery.

10  
11 We say today, and I experienced this coming over here, that  
12 there is too many carry-on bags on the airplane, and so people  
13 get on the airplane and the last ones on have to go back down  
14 the aisle, and you can't go back down the aisle, and so you're  
15 thirty minutes late leaving because there is too many bags.  
16 Whose problem is that? I contend it's the airlines' problem,  
17 because they started charging for bags and everybody reacted to  
18 it.

19  
20 I think that's what has happened. In my analogy, I think that's  
21 what has happened in the fishery, is, because of the management,  
22 whether you blame it on Magnuson or you blame it on NMFS or you  
23 blame it on Roy, which Facebook would do, I'm sure, but the  
24 problem is the result is that the states are protecting  
25 themselves.

26  
27 They have to protect their economy and their fishermen, and so  
28 they are reacting to what has happened to them, just like the  
29 airline traveler has reacted and is now carrying on an extra big  
30 bag, and it's a problem.

31  
32 **MR. BROWN:** For Florida, I guess I have to talk, after hearing  
33 this. I think part of the problem, at least from Florida's  
34 perspective, would be that what we would be looking at is  
35 exactly what we were just talking about between commercial and  
36 recreational.

37  
38 It's that, if you looked at historic data, then the western Gulf  
39 is going to get a larger percentage of the allocation, but, on  
40 the other hand, yes, there is more users, probably, in the  
41 eastern Gulf that are going out there to participate, but red  
42 snapper are in places that we haven't seen red snapper in the  
43 eastern Gulf in fifty years.

44  
45 I am catching red snapper a mile off the shore, off the beach,  
46 off my flats boat, and that hasn't happened, and so that's the  
47 frustration, I think, from a Florida perspective. It's that,  
48 yes, we're seeing more fish and --

1  
2 **MS. RALSTON:** That's why we're catching them.  
3  
4 **MR. BROWN:** That's right.  
5  
6 **DR. CRABTREE:** I get that, and I think you can make an argument  
7 that we ought to allocate the fish to where the fishermen are  
8 and not necessarily where the fish are, which is kind of how  
9 it's shaking out now, but my only point with all of this is that  
10 it's not a problem structurally in the system and the Magnuson  
11 Act. This is just a problem with disagreements and regional  
12 differences and getting at kind of a polarized -- I mean, look  
13 at Congress today. It's polarized. They can't pass -- We may  
14 shut down tomorrow afternoon because they can't come to an  
15 agreement.  
16  
17 It's not like this is unique to the Gulf Council. It's  
18 throughout the whole society, but there is nothing structurally  
19 in the Magnuson Act that prevents the council from doing this,  
20 which means there is not a change to the Magnuson Act that needs  
21 to be made to allow this to happen. The council just needs to  
22 come to some agreement and work it out, and that's difficult.  
23  
24 **CHAIRMAN CAPLINGER:** Roy, do you and your staff make these  
25 recommendations to the Gulf Council that these things should be  
26 fixed, or do you throw the ball in their court and say, knock  
27 yourselves out and let's see what you come up with?  
28  
29 Somebody has got to lead these people. I mean, just like we're  
30 being led, and, I mean, somebody has got to drive the train  
31 here, and, if you know something is broken or something needs to  
32 be fixed, then maybe the staff, the economists and the  
33 biologists and the scientists, should be pushing for real  
34 changes.  
35  
36 **DR. CRABTREE:** Well, I have been a big proponent for regional  
37 management and delegating more responsibility to manage the  
38 fishery to the states. I don't believe we need the Graves  
39 Amendment or legislation to do that. The council can do it. We  
40 had an amendment already to roll to do that, and I supported it.  
41  
42 The problem was the states were having disagreements about who  
43 should get how many fish, and it's essentially this very  
44 problem, and the states, Texas and Florida, killed the  
45 amendment. I voted not to kill it, and now we're going to talk  
46 about exempted fishing permits, and we've got a new series of  
47 amendments to do state management again, and I will support  
48 that. I think we do have a problem here.

1  
2 I think, when you get another stock assessment, you're going to  
3 again hear about differences in the western and eastern Gulf and  
4 that you could manage this as two stocks. Now, as Jim pointed  
5 out, there is different ways to look at that, and I think the  
6 states just have to decide.

7  
8 You know, trying to exert leadership on the council is a tricky  
9 thing, because, sometimes, if I come in and try to push them one  
10 way, they're going to go the exact opposite way from me, and so  
11 that -- If the council is overfishing and the law says you've  
12 got to do this, it's easy for me to go in and say you've got to  
13 end overfishing and here's the science and that's what the law  
14 requires.

15  
16 When it's something like what should the recreational/commercial  
17 allocation be, I am happy to tell the council that you need to  
18 review the allocation and re-look at this, and I have told the  
19 council that you need to look at it, and I voted for Amendment  
20 28, which shifted the allocation, because I thought it was the  
21 right thing to do. If this comes up again at the council, I  
22 will support taking another look at the allocation, but then, if  
23 you ask me what should it be, well, I don't have the answer to  
24 that.

25  
26 **CHAIRMAN CAPLINGER:** I think we're long overdue for a break. Is  
27 that right, Dr. Froeschke?

28  
29 **DR. FROESCHKE:** Yes, and I was going to suggest that some of  
30 this information about the stocks and the distribution is  
31 probably better discussed in Shannon's presentation, because she  
32 has a lot of that information, as well as some of the state  
33 landings and things like that is also in Ava's presentation, and  
34 so we have some information that could inform those discussions,  
35 and so we might move to those and then revisit this as we get  
36 there.

37  
38 **MR. LANDGRAF:** Charlie, I've got one quick thing before we  
39 break. I agree with Kelly on the recommendation, and that's our  
40 charge, right, is to make recommendations, and so the challenge  
41 for this group, as we go through the day, is understanding  
42 recommendations and making sure they're clear, so we can record  
43 them to the council.

44  
45 **CHAIRMAN CAPLINGER:** That's correct.

46  
47 **MR. LANDGRAF:** Just to Dr. Crabtree's point, when it was said  
48 that the baseline data that we're doing our studies against is

1 old, as we know, shouldn't that support why one of our  
2 recommendations might be to support the Modern Fish Act?

3  
4 **CHAIRMAN CAPLINGER:** That's what we will have to determine at  
5 the end of the day. We're going to take a five or ten-minute  
6 break, and then we'll come back. Thank you all.

7  
8 (Whereupon, a brief recess was taken.)  
9

10 **PRESENTATION: RED SNAPPER STOCK ASSESSMENT PROCESS**  
11

12 **DR. CALAY:** My name is Shannon Calay, and I am from the  
13 Southeast Fisheries Science Center in Miami, and I actually work  
14 directly under Clay Porch, who is the Division Chief at our  
15 laboratory. I am the Chief of the Gulf and Caribbean Species  
16 Group, and so I supervise the stock assessment staff as well as  
17 some ecosystem experts, and I actually did conduct the update  
18 assessment in 2014, and so hopefully I know about as much as  
19 needed, although certainly I don't know as much as Clay Porch  
20 would have, had he been here. I will try to fill his very  
21 capable shoes.

22  
23 This is a talk about the stock assessment process, some of the  
24 data inputs and stock assessment results. If you have any  
25 questions at any point, do feel free to interrupt me, or if I'm  
26 speaking too fast or using terminology. There is a lot of  
27 acronyms in this presentation, and I'm going to try to avoid  
28 using them and actually say what the words are, but, if I fall  
29 into the trap of acronyms, please feel free to ask any questions  
30 that occur to you as I speak.

31  
32 First of all, what is a stock assessment model? A stock  
33 assessment model is simply a set of equations that represent a  
34 simplified version of the population dynamics of a fish, or a  
35 species, and its fisheries that operate on that stock. We tune  
36 stock assessment models to actual observations, from data, of  
37 both the biology of the fish, the catches of the species, as  
38 well as how those fisheries operate, the effort, the  
39 distribution, perhaps, of their landings.

40  
41 When we say tune, what we really are talking about is something  
42 very similar to the way you might do a regression, say of length  
43 at age, only we have many things that we're trying to  
44 simultaneously solve, and so, essentially, we're trying to find  
45 the solutions that are most likely, given the data inputs that  
46 we have available to us.

47  
48 Stock assessments provide advice on where the fish population is

1 today relative to established management benchmarks, and, also,  
2 stock assessments predict how the stock will respond to future  
3 management actions, and so I'm going to go out on a limb and  
4 show just a few slides with some mathematics, at the risk of  
5 boring you all to tears, but, in a highly oversimplified stock  
6 assessment model, say you have a pond.

7  
8 The number of fish in that pond is only reduced by fishing.  
9 These fish don't breed, and they don't leave, and they don't  
10 enter the pond. In this situation, the number of fish you have  
11 next year is simply going to be the number of fish you have this  
12 year minus the catch.

13  
14 In this situation also,  $U$  is the catch rate, the catches per  
15 hour. The catches you have this year, which is  $U_2$ , are simply  
16 going to be proportional to the number of fish that are there in  
17 that year, and so  $Q$  is a proportionality constant, which you can  
18 now conveniently ignore, and the catch rates that you had last  
19 year are also proportional to the number of fish that you had  
20 last year.

21  
22 What I am really getting at here is, in this system of  
23 equations, which is very oversimplified, you have things that  
24 you know, which are identified here in red, and these are things  
25 that you know from data observations, and you have other things  
26 that you will need to estimate, and those are shown in blue.  
27 The proportionality constants, you can ignore.

28  
29 Now, let's say, in this example, that the catch in year-one is  
30 1,000 fish, that the catch rates in that year were one fish per  
31 hour. In the next year, your catch rates were only half-a-fish  
32 per hour. You can rearrange these equations and put in the data  
33 that you know and solve for how many fish actually were in this  
34 pond. In the first year, you had 2,000 fish in this example,  
35 and, in the second year, you had 1,000 fish. This is an  
36 extremely oversimplified example, which just gets at the point  
37 that we have certain things that we know from data observations  
38 and other things that we have to estimate, and we estimate it  
39 from the data available to us.

40  
41 Of course, in a real stock assessment, we use far more data than  
42 that to estimate more things, and we use a much more complex set  
43 of equations, which is why you need to have a comprehensive  
44 review of these assessments, which here occur through a SEDAR  
45 process and also through the SSC, which is another, obviously,  
46 group of this council, the Scientific and Statistical Committee.

47  
48 What goes into a real stock assessment? We have information

1 about the biology and ecology of fish, and we have information  
2 about the age and composition of the catch from analysis of  
3 otoliths, or ear bones, and we have information about the size  
4 of the catch. We monitor recreational fisheries and commercial  
5 fisheries, and we have scientific, or fishery-independent,  
6 surveys. We also monitor other extractions, such as shrimp  
7 bycatch and discards.

8  
9 What actually went into the 2014 assessment of red snapper and  
10 what are we using also in the update, which is occurring right  
11 now? We are currently underway with an assessment to be  
12 completed in 2018. A reminder that some of this is a little bit  
13 redundant with John's presentation, but we are using an age-  
14 structured model. We used Stock Synthesis, which is basically  
15 pretty standard across the -- Well, it's standard use in the  
16 United States. It's also used in many other countries, and it  
17 has been simulation tested, which is an advantage.

18  
19 The stock assessment covers a period from 1872 to 2014 in this  
20 case, and we assess the stock as two stocks, one east and one  
21 west of the Mississippi River, and so all of the data inputs are  
22 actually broken out by east and west, but we only estimate one  
23 spawner-recruit relationship at this point, and we allocate the  
24 recruits to either the western Gulf or the eastern Gulf, using  
25 information obtained from data, but the council has chosen to  
26 manage the stock as a Gulf-wide stock.

27  
28 Although the assessment is already essentially constructed to  
29 support the eastern and western analyses, the management advice,  
30 by the choice of the council, is provided Gulf-wide.

31  
32 We have a variety of sources of fishery-dependent data, meaning  
33 that they are literally derived from the operations of the  
34 fisheries themselves. For example, we have catch information,  
35 information on the discards, the effort, the catch per unit  
36 effort, and age and length composition data.

37  
38 The fleets that we actually model in the stock assessment are  
39 the commercial handline, or vertical line, fleet, the longline,  
40 and the recreational private boat and charter boat are combined  
41 in the stock assessment model, and we have the headboat. We  
42 also model closed season commercial discards, closed season  
43 recreational discards, and the shrimp bycatch. Those are all  
44 separated east and west, as I mentioned.

45  
46 We have a variety of fishery-independent information, which is  
47 also used in the stock assessment model, and, as John mentioned,  
48 the advantage of the fishery-independent data is that we don't

1 need to model our way out of changes that have occurred due to  
2 management. All of the fishery-dependent sources, they are all  
3 influenced by management decisions, and so there are attempts to  
4 correct for those changes. That is not needed in the case of  
5 the fishery-independent data.

6  
7 Here we have mostly information on catch rates or indices of  
8 abundance from the SEAMAP video survey, the ichthyoplankton, or  
9 larval survey, summer trawl and fall trawl survey, NMFS bottom  
10 longline survey, and we have information from the artificial  
11 reefs. I will talk a little bit about that. It's from remote-  
12 operated vehicles, and it's primarily a source of fishery-  
13 independent length composition information. It's not an index  
14 of abundance at this time.

15  
16 One thing to mention, and also touched on by John, is that these  
17 fishery-independent surveys actually monitor different age  
18 classes of red snapper, and so the summer and fall trawl surveys  
19 look at age-zero and one, primarily. Well, entirely. The  
20 plankton survey, although it actually is a larval fish survey,  
21 we're using it to index the spawning stock biomass, the  
22 abundance of the adult spawners, and the NMFS longline survey  
23 also is an indicator of the adult biomass of spawners. The  
24 video survey is a broader composition of both younger fish and  
25 older fish as well.

26  
27 **MR. BROWN:** Before you move to the next slide, is the age-  
28 structured model -- You haven't really explained that, and is  
29 that in reference to the age of the fish?

30  
31 **DR. CALAY:** Yes, exactly, and so we essentially are modeling the  
32 fish from age-zero to I think the maximum age in this case is  
33 twenty. I think the plus-group is twenty, but I could be  
34 mistaken. The fish are actually as old as fifty-seven years,  
35 but we have such spotty measurements of the much older fish that  
36 we create a plus-group that encompasses fish that are adults,  
37 that essentially have that maximum reproductive potential, or  
38 close to it, but we compress it into a single age group and  
39 track it in the model that way.

40  
41 **MR. BROWN:** In that, if it's a model that is used across all  
42 species, and, again, forgive me, especially to all the  
43 scientists in the room, for trying to simplify this. If you're  
44 looking at most fish, and say their maximum yield might be  
45 between the ages of three and five, and the maximum yield for  
46 red snapper might be between ten and twenty, and I'm just making  
47 numbers up here, but, in the meantime -- So, in that three to  
48 five-year-old fish, there is very little production, probably,

1 before three years and very little production after five years,  
2 but, with red snapper, there may be considerable production  
3 before they meet their maximum at ten years and probably not a  
4 whole lot after their maximum, but, that period of time between  
5 the five and ten-year range, you've got a lot of production  
6 going on there. Is the model kind of set up to consider that  
7 data?

8  
9 **DR. CALAY:** The model has age-specific estimates of fecundity,  
10 or reproduction, and mortality, and it actually has the age  
11 composition of the fisheries, and so we know the age that, for  
12 example, the recreational headboat fishery in the east -- We  
13 know the age classes that that fishery acts upon, and so, as I  
14 show these inputs, if it's still not clear to you what I'm  
15 trying to get at, let me try again, but I will show you what the  
16 inputs look like, and maybe it will become clearer.

17  
18 Stock Synthesis is actually a very flexible model framework that  
19 can be set up -- It's essentially set up based on the  
20 information you have, and so, in this case, we have information  
21 about the age composition of fish from zero to fifty-seven and  
22 the years 1872 to 2014, and we have this complete structure, and  
23 so that's how this model is set up, but, in a number of  
24 situations, you would have much less data, and the model would  
25 be structured more simply. This just happens to be a fairly  
26 data-rich stock assessment.

27  
28 **MR. BROWN:** I guess my question goes to -- It sounds like you  
29 are considering that production time prior to them having their  
30 prime production.

31  
32 **DR. CALAY:** Absolutely.

33  
34 **MR. BROWN:** You're not just waiting for all the fish to get to  
35 that older producing age, but you're counting in that, yes,  
36 those younger fish are still producing, and they're producing  
37 for a longer period of time than what most species produce.

38  
39 **DR. CALAY:** That's correct.

40  
41 **MR. BROWN:** So there's an adjustment for red snapper, basically.

42  
43 **DR. CALAY:** Yes, and I will show you what we actually include.  
44 All right, and so now I'm just going to go over the data inputs  
45 to this particular stock assessment, at least generally. We  
46 actually begin this stock assessment model in 1872, and we have  
47 estimates of the historical landings of this fishery from, in  
48 this case, on this slide, 1872 to 1960, which is prior to where

1 we start having our NOAA Fisheries data about the commercial and  
2 recreational fisheries.

3  
4 This information, basically the fishery started in 1872, when  
5 ice became available, and it became economically viable to  
6 capture these fish and sell them, and so the fishery very  
7 quickly ramped up, and, even in the 1880s, and you see the hook  
8 there, there was already some reports of local depletions of  
9 certain stocks, and so there was an investigation to try to  
10 figure out where they would have higher catch rates in other  
11 places.

12  
13 There was a peak in the probably early 1900s that you see there,  
14 followed by a rapid decline, as the fishery actually moved  
15 toward Campeche Bank, and so, although those landings continue  
16 to occur, they are not in U.S. waters, and so they're not  
17 included here, but this is a plot of U.S. landings.

18  
19 The flat portion you see is essentially World War I, and then  
20 there is a slight ramp-up and a big decline, where the dollar  
21 sign is. That's the Great Depression. The fisheries didn't  
22 ramp up again until World War II, and then, due to a lot of  
23 enlistment, and so some of the fishermen became soldiers, as  
24 well as the threat of submarines, the fishery did decline again  
25 during World War II.

26  
27 It has essentially increased from World War II to 1960, with  
28 fluctuations, obviously, as technology increased, as boat  
29 engines became available, as there was boat building occurring.  
30 Even in the 1960s now, there was concern that the stock had  
31 become overfished, particularly in the eastern Gulf of Mexico,  
32 where the fishery was predominantly occurring.

33  
34 Now this is more -- These landings are from our federal  
35 databases, and so now we have the full history, and so from 1872  
36 to 2014, but I am going to talk about the part that starts with  
37 the green shading, which is where we start to have information  
38 about the recreational fisheries, which apparently there was a  
39 rapid increase in the recreational fisheries that occurred about  
40 that time, and this decrease that you see right here around 1990  
41 is actually caused by the imposition of management regulations,  
42 including the thirteen-inch size limit, and especially pretty  
43 strict catch quotas of five and six-million pounds that occurred  
44 at that time, which limited the landings that were extracted for  
45 red snapper. Since that time, the catch limits have increased  
46 somewhat, and the landings have as well.

47  
48 We also have discards in the model, and what you're seeing in

1 orange are the shrimp discards, and this plot happens to be in  
2 millions of pounds, and so the shrimp discards look relatively  
3 small when they're expressed as millions of pounds. If this  
4 plot had instead been in numbers, they appear very large,  
5 because they're on the order of twenty-five-million red snapper  
6 extracted by the shrimp bycatch in certain years, but they're  
7 very small. They're essentially mostly age-zeroes and ones, and  
8 so they're small fish, and so their weight is actually  
9 relatively low.

10  
11 You see all these other discards from the recreational and  
12 commercial fleets rapidly increase about 1990, and that, again,  
13 is due to the management regulations, and so, as you see the  
14 size limits occurring, fish are discarded, and some subsequently  
15 die of barotrauma, and so that produces dead discards, and you  
16 also have closed seasons and bag limits, et cetera, et cetera,  
17 that all lead to discards of fish that may subsequently die of  
18 barotrauma.

19  
20 This is an age-structured model, as I have mentioned, and so  
21 this is an age-structured input, which does the natural  
22 mortality at age, and so why age-zero has a lower natural  
23 mortality than age-one is actually because of the way the model  
24 is structured. Age-zero is only half-a-year long in Stock  
25 Synthesis, and the other ages are all one year long, and so,  
26 actually, age-zeroes die at a higher rate than age-one, due to -  
27 - Well, they just do, but we apply a lower natural mortality of  
28 zero, because, in the model, it's a half-a-year long, and so it  
29 looks a little strange.

30  
31 These estimates, I believe, came from Benny Gallaway and others,  
32 and they were reviewed by the data and assessment workshops  
33 during SEDAR 7 and 31, and so we tried to incorporate a variety  
34 of information from the academic studies.

35  
36 Growth, the length at age, obviously, is also an age-specific  
37 component to this model, and this functional relationship comes  
38 from roughly 100,000 otolith observations, and you can actually  
39 age the fish using this otolith bone, and that's where this  
40 measurement comes from.

41  
42 Reproduction is what you were getting at, and you can see that  
43 fish as young as age-two have some maturity, although a very low  
44 fecundity, but fish three, four, five, and six all do produce  
45 eggs, and there are at least a fraction of them that are mature  
46 and producing eggs in the population. There are also a lot more  
47 of these small fish, and so, even though their relative  
48 fecundity is lower than the oldest fish, there are more of them,

1 and so they do have an important effect on the reproduction of  
2 red snapper.  
3  
4 Obviously, the older the fish get, the more fecund they are.  
5 They produce more eggs per year at larger sizes, and so those  
6 fish, per individual, are more important to the stock, but there  
7 are more younger fish, and so, even though their relative  
8 fecundity is lower, there are a lot of them. Is that basically  
9 clear? Am I basically addressing the question you asked?  
10  
11 **MR. BROWN:** Yes.  
12  
13 **MS. RALSTON:** What does it look like when --  
14  
15 **DR. CALAY:** I would have to pull a different slide for that, and  
16 I don't know the number offhand.  
17  
18 **MS. RALSTON:** I would just be curious.  
19  
20 **DR. CALAY:** In general, the reproduction increases at about the  
21 Q above the length of the fish, and so the fish have a maximum  
22 size, and, once they essentially achieve their maximum size,  
23 their relative fecundity doesn't change as quickly anymore.  
24  
25 There is some evidence that the older fish have higher fecundity  
26 because their eggs survive longer and they provide a higher  
27 quality reproductive product, but it doesn't increase as quickly  
28 anymore once they achieve essentially their maximum size, which  
29 I think is achieved -- They are achieving their maximum size  
30 around age-twenty here, and so you would expect their relative  
31 fecundity doesn't increase as quickly anymore after they achieve  
32 their maximum size.  
33  
34 **MR. BROWN:** So the length of a one-year-old fish, on average, is  
35 about what?  
36  
37 **DR. CALAY:** A one-year-old fish, according to this plot, you're  
38 looking at a length of -- This is probably -- It's a good  
39 question whether this plot is in -- This must be in centimeters.  
40 This plot is in centimeters, and so twenty centimeters.  
41  
42 **MR. BROWN:** Then you would estimate a five-year-old fish being  
43 around the forty centimeters or something like that?  
44  
45 **DR. CALAY:** Yes, and obviously there's a lot of variability  
46 here.  
47  
48 **MR. BROWN:** Yes, right.

1  
2 **DR. CALAY:** One thing that would help us to improve the stock  
3 assessment is to have a better idea of the size of fish -- This  
4 is fishery-dependent data, again, and so one thing that we lack  
5 is a lot of observations of fish below the size limit, and so  
6 the smallest fish don't actually show up on this figure, because  
7 they are below the size limit, and so they're not landed by the  
8 fishery-dependent operations.  
9  
10 **MR. BROWN:** Do you have an opinion or data on -- Because you  
11 said the mortality of a one-year-old fish is very high, and how  
12 much mortality is caused by -- What am I trying to say, but bait  
13 and the other fish, bigger fish, eating smaller fish?  
14  
15 **DR. CALAY:** I don't. I'm sorry. I don't have any.  
16  
17 **MR. BROWN:** I don't know that it mattered, but I was just  
18 curious.  
19  
20 **DR. CALAY:** I mean, obviously, there is predation and there is  
21 disease. I imagine the largest source is predation, but I'm  
22 just not sure.  
23  
24 **CHAIRMAN CAPLINGER:** Shannon, the number we have to pay  
25 attention to is sixteen inches, and so how many times has that  
26 fish spawned by the time it reaches sixteen inches? My question  
27 is because I don't want to catch the fish too soon, and, if  
28 we're damaging the fish for some reason for a limit, then I want  
29 to be thoughtful about that, but is the -- I am ignorant on  
30 this, but what is the commercial length limit? Is it sixteen as  
31 well, or is -- It's smaller, isn't it? Is it twelve?  
32  
33 **DR. CALAY:** It's thirteen.  
34  
35 **CHAIRMAN CAPLINGER:** So, can you kind of help us with when and  
36 how much and how often these fish spawn by the time they reach  
37 thirteen and then sixteen?  
38  
39 **DR. CALAY:** It's a complicated question, because fish may spawn  
40 multiple times in a year, and the spawning frequency also  
41 changes with age, and so, typically, I would think, in the  
42 relationships that I've seen, as the fish get older, they also  
43 spawn more frequently.  
44  
45 It's a question that I can certainly address to our Panama City  
46 Laboratory, and they could probably respond today, but my  
47 impression is that they're really not -- They're not producing  
48 much, in terms of reproductive products, until they're age-

1 three, at least, and it looks like, on this plot, that age-three  
2 -- Really, what we're talking about in some of these fisheries  
3 is predominantly we're catching ages-three to eight in the  
4 directed fisheries, and so, at age-three, you're talking about a  
5 very low relative fecundity, and so these fish may have only  
6 spawned say once or twice, or one or two years, with a low  
7 frequency during that year of spawning. By the time they get up  
8 to age-eight, they are spawning more often, and they have had  
9 more opportunities to spawn.

10  
11 **DR. CRABTREE:** Where the commercial size limit came from -- It  
12 used to be fifteen inches, and we lowered it, and that was based  
13 on observer data on commercial vessels that indicated that 85  
14 percent of the fish they release were dead anyway, and so every  
15 analysis we had indicated that you're better off to land them  
16 and count them against the quota than to throw them over the  
17 side dead.

18  
19 The sixteen inches in the recreational fishery was more based on  
20 trying to squeeze a longer season out of it than anything else,  
21 but the belief has always been the discard rate in the  
22 recreational fishery is much lower.

23  
24 Remember that the commercial guys fish those Christmas tree rigs  
25 that have loads of hooks on them, and they pull them up and  
26 stream the rig down the side of the boat, and then there's quite  
27 a period of time before the fish get released, and so it didn't  
28 make any sense to throw that fish away.

29  
30 **CHAIRMAN CAPLINGER:** I've got you, and I thought it was because  
31 that size fish fit on a plate. That's not right?

32  
33 **DR. CRABTREE:** That was part of it. I actually felt like we  
34 should have gotten rid of the size limit and required them to  
35 land every fish they caught, but they didn't want to bring in  
36 the fish below thirteen, and so there was this compromise, and  
37 that's where it wound up.

38  
39 **CHAIRMAN CAPLINGER:** Shannon, is the catch -- Is the amount of  
40 red snapper caught insignificant compared to natural predation  
41 or whatever else when you look at the spawning rate? Are we  
42 really, we being commercial and recreational fishermen, are we  
43 hurting the spawning rate at all, or is it such a miniscule  
44 amount compared to how many fish are caught in shrimp trawls and  
45 die because they've been eaten and all that kind of stuff?

46  
47 **DR. CALAY:** The stock assessment model does include components  
48 of the natural mortality, the directed mortality, fishing

1 mortality, and discard mortality. If you look at the relative  
2 magnitude of those sources of mortality, certainly your  
3 recreational fishery in the east and your commercial fisheries  
4 in the west have important impacts.

5  
6 If you look at fishing versus natural mortality, like all  
7 fishing sources of mortality and natural mortality, if the  
8 sources of directed fishing essentially equal the natural  
9 mortality, that's a situation where we think overfishing could  
10 be occurring. I mean, that's a very general benchmark that we  
11 think about.

12  
13 In this situation, the directed sources of mortality are  
14 certainly comparable to the natural mortality that's occurring,  
15 and, specifically, those sources of directed fishing mortality  
16 that are notable in the stock assessment model are the  
17 recreational removals in the east, in particular, and the  
18 commercial removals in the west.

19  
20 Now, the shrimp bycatch used to be, prior to 2007, a very much  
21 more important source of removals. The shrimp effort has  
22 declined markedly since that time, and it doesn't seem to be a  
23 very important source of removals anymore, especially given the  
24 very high natural mortality of age-zero and one, because the  
25 shrimp bycatch is largely age-zero and one, but, if we were to  
26 allow the shrimp bycatch to increase again, if we were to allow  
27 the shrimp effort to increase, then that would become, again, an  
28 important source of mortality in the model. Right now, it seems  
29 to be relatively small.

30  
31 **CHAIRMAN CAPLINGER:** Thank you.

32  
33 **DR. CALAY:** You're welcome.

34  
35 **MR. MARQUEZ:** Shannon, can I ask why is the commercial component  
36 just identified for the west, rather than the east?

37  
38 **DR. CALAY:** Well, again, this gets at the way the fishing fleets  
39 in this model are structured. We're essentially doing --  
40 Really, we're doing two stock assessments that are joined  
41 through the allocation or the assignment of recruits east and  
42 west, and so what I was really get at is that, if you look at  
43 the east in isolation, if you look at just the eastern  
44 population, the primary source of directed fishing on the  
45 eastern population is from the recreational sector, where, if  
46 you look at the predominant source of mortality from the western  
47 Gulf of Mexico on that western stock in isolation, it tends to  
48 come more from the commercial than the recreational sector in

1 the west.  
2  
3 **DR. CRABTREE:** But there is commercial fishing on both sides.  
4  
5 **DR. CALAY:** There is commercial fishing on both sides.  
6  
7 **DR. CRABTREE:** It's just most of the commercial fishery is in  
8 the west and most of the recreational fishery is in the east.  
9  
10 **DR. CALAY:** Correct. It's an uneven distribution of those two  
11 fishing sectors. Do you see what I'm getting at? Most of the  
12 recreational fishing is actually occurring on the eastern stock.  
13  
14 **MR. BROWN:** All right, and so it's just the recreational  
15 pressure in the east is outstripping the commercial effort  
16 there, but would you say the commercial effort in the east and  
17 the west is about the same, but it's just that the recreational  
18 effort in the east is higher and it's outstripping the  
19 commercial effort?  
20  
21 **DR. CALAY:** Let me see if I can say this accurately, and Roy can  
22 assist, if needed. I think that -- I don't want to get at  
23 effort, because they are measured differently between commercial  
24 and the recreational, but the extractions, the actual commercial  
25 and recreational extractions, are fairly similar east and west,  
26 but the recreational fishery predominantly occurs in the east.  
27  
28 **DR. CRABTREE:** I think more than half of the commercial landings  
29 are in the west.  
30  
31 **DR. CALAY:** Yes, right.  
32  
33 **MR. KENNEDY:** Could you explain the vertical axis to me?  
34  
35 **DR. CALAY:** It's relativized, and so, basically, at some age, I  
36 think twenty in this plot, which isn't on the plot, you have the  
37 highest fecundity, and so this is just -- Say wherever 0.5  
38 occurs, and it looks like about age-seven, and so a red snapper  
39 about age-seven has about 50 percent of the fecundity of an  
40 animal that is age-twenty.  
41  
42 **MR. KENNEDY:** The ability to produce eggs?  
43  
44 **DR. CALAY:** Right.  
45  
46 **MR. KENNEDY:** So when we have a management plan to -- According  
47 to this, it's, I guess, pretty much common knowledge, if we have  
48 a management plan that incentivizes killing say a ten-year-old

1 fish, because it's bigger, instead of killing a three-year-old  
2 fish, that's counterintuitive to the thing you're trying to help  
3 us with with reproduction increases.

4  
5 We're a lot better off with one ten-year-old fish in the pond  
6 than we are with several three and four-year-old fish in the  
7 pond, so that, if you've got the biomass of a ten-year-old fish,  
8 and say it's twenty pounds of your stock, whereas that same  
9 twenty pounds equals several of these younger fish. According  
10 to the reproduction, we're a lot better off with that single  
11 ten-pound fish out there, if he's twenty pounds, then twenty  
12 pounds worth of smaller fish.

13  
14 **DR. CALAY:** There are always many ways to skin a cat, and you  
15 can actually successfully manage a fishery that predominantly  
16 catches young fish. You can also successfully manage a fishery  
17 by delaying those catches until they're older.

18  
19 You could catch large numbers of the older fish, because they've  
20 had a number of opportunities to reproduce, and so there's  
21 always ways that the fishery can be managed on whatever  
22 selectivity pattern you want to see, but that will have an  
23 implication for how much you can catch, and so it's a management  
24 decision.

25  
26 **MR. KENNEDY:** One of the things that we're considering -- I say  
27 considering, but one of the options that there are to consider  
28 is to catch the stock down so that the average size of the fish  
29 that most people keep would be smaller, so that we reach our  
30 quota less quickly, because it's been an unintended consequence  
31 of the management procedures over the years, even though the  
32 quotas are going up and the stock is getting healthier, and we  
33 get less days, and that's because the single fish we catch  
34 weighs significantly more, and so it seems like another benefit  
35 to that would be, if we're taking out smaller fish, then we are  
36 taking out inefficient spawners compared to larger fish.

37  
38 **DR. CRABTREE:** It's complicated, because that smaller fish you  
39 take out -- If you didn't take it out, it would continue to grow  
40 and get bigger and become a bigger fish, and so --

41  
42 **MR. KENNEDY:** The same big fish would get caught.

43  
44 **DR. CRABTREE:** It might, if you could figure out how to catch  
45 the small ones without catching the big ones and discarding them  
46 and having them die anyway, and that's always been the main  
47 problem here, is it's very difficult to shift the size fish that  
48 the fishery is catching without having big impacts on the

1 discard patterns.

2  
3 **MR. KENNEDY:** I see, in all the management plans, it seems like,  
4 every time you want to help the situation, you increase the size  
5 of the fish that we're allowed to keep, thinking that that's  
6 going to extend the season, and I've seen that comment in all of  
7 the alternatives.

8  
9 **DR. CRABTREE:** We used to have analyses that showed that, and  
10 that was at the time when the stock was much more depleted than  
11 it is now, and so it was hard to catch bigger fish, and so I  
12 remember fishing back in the 1990s, and the size limit was  
13 fifteen or sixteen inches, and you would go through a lot of  
14 fish before you finally caught one that was sixteen inches, and  
15 so, if you put the size limit in, it took people longer to catch  
16 a fish, and that had the effect of extending the season.

17  
18 What has happened now though is it doesn't take any time to  
19 catch a sixteen-inch fish, and, because people know they're  
20 going to catch lots of big fish, a lot of people won't even keep  
21 a sixteen-inch fish, because they want a bigger one, and so it  
22 probably doesn't have any effect of extending the season  
23 anymore, and we just haven't changed the size limit, I don't  
24 think, since 2005 or 2006.

25  
26 It's been where it is now for a long time, because we have  
27 really never seen a powerful reason to change it. I think, if  
28 you lowered the recreational size limit, people still aren't  
29 going to bring in those small fish.

30  
31 **MR. KENNEDY:** No, and you have to increase the number you can  
32 keep to get them to keep the smaller fish.

33  
34 **MR. BROWN:** Right, or you could have a slot limit, because that  
35 would prevent the discards, because, right now, what you said is  
36 exactly the case. I don't know of anybody that's keeping  
37 anything under a fifteen-pound fish, and so they're fishing  
38 until they can catch those bigger fish, and they've got plenty  
39 of discards.

40  
41 **DR. CRABTREE:** You could put in a slot limit and say that no one  
42 could keep a fish above twenty-four inches or something like  
43 that. The trouble then is you've got to deal with the mortality  
44 rate of those big fish that people catch and throw over the  
45 side, and it's probably going to be substantial. I mean, my  
46 guess is 30 percent or so of those are going to die. Now, maybe  
47 with descending devices and all kinds of things, you can improve  
48 on that.

1  
2 The other part of that is nothing really ticks people off much  
3 worse than making them throw a big fish back and watching it  
4 float off, and so we've talked about slot limits a lot, but the  
5 council has just never been willing to go there, because of the  
6 concerns about mortality and discards.

7  
8 **MR. BROWN:** I don't know if anybody else has experience with  
9 this, but it seems like the younger fish are more aggressive,  
10 and so you're more likely to catch those first at a spot.

11  
12 **DR. CRABTREE:** Now, one thing that you probably could do is  
13 regulate hook sizes, and, if you use bigger hooks, you're going  
14 to catch fewer small fish, and then you avoid the discards  
15 altogether, but, boy, that's getting into pretty much  
16 micromanaging the fishery, and probably there is no real way to  
17 enforce that, but, if you made people use a really big hook, you  
18 could probably get rid of most of those small fish.

19  
20 **CHAIRMAN CAPLINGER:** Roy, it seems like, the bigger the fish,  
21 the lesser quality of the meat, and, really, you're catching a  
22 trophy fish. For redfish, for example, in Louisiana, we have,  
23 anything over twenty-seven inches, you can only keep one. That  
24 has worked well, and people have been fine with taking a picture  
25 and releasing those fish, because the picture is what they want.

26  
27 The quality of the meat is not there, and it's really not a good  
28 fish to eat, and so I'm thinking, with the improvements in  
29 descending devices, and I use one right now, and we rarely lose  
30 a fish, or we see one, but you would think that you could use  
31 that as a carrot and say, if you voluntarily -- If the  
32 recreational sector would consider this seriously, then perhaps  
33 we could increase the number of days or do something that would  
34 benefit their experience on the water.

35  
36 **DR. CRABTREE:** You might could. I mean, the thing about redfish  
37 is I think the release mortality rate for redfish is 2 or 3 or 4  
38 percent. It's really low. It's higher with red snapper, and  
39 so, if we knew what effect descending devices would have, and we  
40 knew what the compliance would be and how many people would  
41 actually do it, we could probably do some sort of analysis to  
42 look at what the impact on the season would be.

43  
44 **CHAIRMAN CAPLINGER:** Maybe they need to use descending devices  
45 across the fishery, into commercial fishing as well, because I'm  
46 sure there's a significant amount of discards on those boats,  
47 and, because they are so efficient, and they want to be so  
48 efficient, I don't know how careful they are.

1  
2 I mean, I have left a rig and chased a fish to grab it and put  
3 it back on the descending device and send it back down, and I  
4 brought my kids up that way, and I don't know that that mindset  
5 is prevalent across the whole fishery.

6  
7 **DR. CRABTREE:** The commercial fishery is more complicated. I  
8 don't think they have all that many discards because of the size  
9 limit. Most of the discards in the commercial fishery have to  
10 do with people not having IFQ quota and those kinds of things,  
11 and so you may have grouper guys who don't own very many IFQ  
12 shares, and they may catch snapper sometimes, and they can't  
13 bring them in, and so they're discarding them, and it doesn't  
14 matter what the sizes are.

15  
16 Now, that's getting better over time, because people are trying  
17 to acquire quota, and people lease quota to try and cover their  
18 discards, but I don't think all that much of it is because of  
19 the size limit, and I wouldn't expect that these guys fishing  
20 thirty-hook rigs are going to be able to effectively use  
21 descending devices, but it may have a lot of potential on the  
22 recreational fishery if you could really get good compliance and  
23 get people to do it, particularly in the western Gulf, because,  
24 generally speaking, the fishery is in deeper water in the  
25 western Gulf, and so the release mortality rates are probably  
26 higher.

27  
28 **MS. RALSTON:** I really like the idea of perhaps another  
29 recommendation of this panel being a more robust exploration of  
30 descending devices. I know the council has looked at doing a  
31 voluntary type of promotional approach at this point, but I  
32 think perhaps a recommendation from this panel to maybe look at  
33 what the impacts would be on actual regulatory discards and how  
34 that could help with availability of quota might be something  
35 for us to think about.

36  
37 **CHAIRMAN CAPLINGER:** I will mark it down. Thank you.

38  
39 **MR. BROWN:** And it has incentivized -- It increases the use of  
40 it, and so, if you have one onboard and you can keep one more  
41 fish, you're going to have people that are going to go out and  
42 buy that and use it.

43  
44 **CHAIRMAN CAPLINGER:** Doug has a question.

45  
46 **MR. BOYD:** Well, I've got a question for Roy. I think it was at  
47 the last meeting, or maybe the meeting before, but Andy  
48 Strelcheck sat in for you, and there was a lot of discussion and

1 a presentation by Greg Stunz out of Texas, the senior biologist,  
2 about descending devices, and Andy virtually killed that  
3 discussion at that time, and can you comment on that?

4  
5 **DR. CRABTREE:** This gets complicated, because there is RESTORE  
6 Act money that people want to use to buy descending devices and  
7 make them available to folks. One of the things with RESTORE  
8 Act money is you can't use it to do something that is already  
9 required in the regulations, and so there is a worry that, if we  
10 require descending devices now, that we wouldn't be able to use  
11 RESTORE Act money to buy descending devices and distribute them.

12  
13 The feeling was let that happen and try to do the outreach and  
14 get these out in people's hands and let them get comfortable  
15 with them. Then come back, down the road, and revisit whether  
16 we want to require them or not. You know, all we can really  
17 require is people to have one onboard the vessel. We don't have  
18 any ability to enforce that people use them or not, and the  
19 trouble with that too is that, a lot of these fish you release,  
20 you don't need to use a descending device.

21  
22 If you're in shallow water, you're better off to just let the  
23 fish go and let it down, and so, at some point, the fisherman  
24 has got to make a judgment call about whether to vent the fish  
25 or whether to use the descending devices, and so the best we  
26 could do is require people to have them, but I think the  
27 consensus right now is we're better off to let some of this  
28 funding get them out into the fishery and let people get used to  
29 them and learn to use them and do the outreach part of it and  
30 hold off on the regulatory side of it, and so I think that's  
31 where that discussion was.

32  
33 **MR. BOYD:** Is there an active program to distribute those to  
34 fishermen?

35  
36 **DR. CRABTREE:** There are grants and things happening. I think  
37 hasn't ASA distributed descending devices?

38  
39 **MS. RALSTON:** Yes, we did some to charter captains, to kind of  
40 evaluate how they were using them and what their impressions  
41 were and that sort of thing, and so we've done some of that.

42  
43 **MR. BOYD:** Do you think they're using them, the charter guys,  
44 the for-hire?

45  
46 **MS. RALSTON:** We have a summary of the study, and I would have  
47 to pull it up, but it seemed like it was a positive result, for  
48 sure.

1  
2 **MR. BOYD:** Okay, and I have a question for Shannon, if that's  
3 all right.

4  
5 **CHAIRMAN CAPLINGER:** Sure.

6  
7 **MR. BOYD:** Does the model, your models, take into consideration  
8 the poaching that's happening out of Mexico, because it's  
9 significant, and, if so, how do we manage that, because it feels  
10 like, and I think common knowledge is that a majority of those  
11 fish, because of the price of the fish, are coming back into the  
12 United States from Mexico and being sold to fish houses here.

13  
14 **DR. CALAY:** When this stock assessment model which I'm  
15 describing was conducted, that information was fairly new, and  
16 we had not, at that time, incorporated that information. The  
17 estimates are not insignificant of the poaching that's  
18 occurring, and, if we were to put those landings in the model,  
19 it would have some impact.

20  
21 Compared to the total removals in the stock assessment model,  
22 they are still relatively small, and so it's unlikely that  
23 you're going to see a massive effect of the inclusion of the  
24 poaching from Mexico, but, nevertheless, if we had an accurate  
25 time series of that information, we would be very happy to  
26 include that in the stock assessment model, as a sensitivity run  
27 at least, for consideration of the group. We are conducting  
28 that stock assessment right now, and so maybe I can follow-up  
29 with that, to make sure that we're still considering that source  
30 of information.

31  
32 **MR. BOYD:** There are wide estimates, like you said, from maybe a  
33 million pounds a year to three-million pounds a year, that are  
34 being taken out, based on the interceptions, and so the next  
35 question I would have is, if it is significant, if it's poaching  
36 at the level of the recreational fishing quota, shouldn't we do  
37 something about that, and how can we manage those fish coming  
38 back into the United States, and, if they're coming back into  
39 the United States and they're coming out of our waters, how do  
40 we charge those to a particular sector and account for them in  
41 that way?

42  
43 **DR. CRABTREE:** That's complicated, and I would think you  
44 wouldn't charge it to a particular sector, because it's  
45 poaching, and we have poaching from various sources that  
46 oftentimes may not get counted, but the trouble with -- I mean,  
47 everybody agrees that we don't want the poaching happening, but  
48 it gets into international treaties and the State Department and

1 our ability to do those kinds of things.

2  
3 I think it's high on the Coast Guard's radar screen. The  
4 trouble is these guys come over in boats that are essentially  
5 worthless, and the boat gets confiscated, and, ultimately, the  
6 poachers get sent home, and I think, ultimately, the boats may  
7 get trashed, but apparently they just write it off as a cost of  
8 doing business.

9  
10 The other thing is it's more than just poaching that these guys,  
11 a lot of them, are doing. There is drug running and all sorts  
12 of things that I've been told are associated with it, and so we  
13 would like to change it, and maybe if -- You're in Texas. When  
14 the wall was built, my idea was to extend it out 200 miles.

15  
16 **MR. BOYD:** We just need to give them the ability to put a fifty-  
17 caliber round through the motor.

18  
19 **DR. CRABTREE:** Well, I mean, there's lots of things you can  
20 think of where we should have tougher penalties and all, but  
21 that's all getting well beyond what we --

22  
23 **MR. BOYD:** Our Coast Guard representative at the council has  
24 said that there is one particular fisherman that's been caught  
25 over twenty times and released back to Mexico, and then, a week  
26 later, he's right back again.

27  
28 **DR. CRABTREE:** I guess we could ask the attorneys to advise us  
29 on who the authorities are on these sorts of things, and we  
30 could make a request that someone in the administration look at  
31 tougher penalties for it, but my guess is that it gets tied into  
32 NAFTA and all that stuff.

33  
34 **MR. BOYD:** The problem is, and you said it, but the problem is  
35 that we've got a State Department issue, and we've got  
36 international treaties, and we don't want our fishermen who go  
37 across the border to get their boats confiscated and everything  
38 else, and so it's a very hard issue.

39  
40 **DR. CRABTREE:** If you think about a million pounds or two-  
41 million pounds of fish, we have a roughly fourteen-million-pound  
42 quota, and you've got all these dead discard fleets, and so  
43 there is probably twenty-million pounds in removals, easy, and  
44 so you're really talking 10 percent or less, probably, and I  
45 think that's why Shannon says that it's not likely to make a  
46 substantive --

47  
48 **MR. BOYD:** But when you look at it from the amount of quota that

1 the recreational fishermen have, which we're talking about here,  
2 it's significant.

3  
4 **DR. CRABTREE:** Well, if they weren't removing those fish, in  
5 theory, we could raise the quotas and catch them ourselves.

6  
7 **CHAIRMAN CAPLINGER:** We have two questions. Rudy, I think, had  
8 one.

9  
10 **MR. VALENCIANO:** Have we made some adjustments to the mortality  
11 rate for the fish on discards due to the fact that the rule-of-  
12 thumb, back when I was fishing in the 1980s and 1990s, or even  
13 late 1970s, the rule-of-thumb was you have to catch redfish in a  
14 hundred feet of water or more, and now we're catching fish, like  
15 you said, in forty feet of water, where you don't need a  
16 descending device, and the mortality rate has been decreased  
17 substantially, because now we're catching the red snapper in the  
18 upper portion of the water column.

19  
20 In a lot of cases, like fishing for mangrove snapper without a  
21 weight, you're catching red snapper all the time, and you can  
22 release those, and they go right back down. There is no  
23 mortality in those, and so, even if you're releasing the  
24 sixteen-inch fish and trying to catch a fifteen-pounder, you're  
25 not doing any damage to the stock, because you're really not  
26 damaging the species, and has any adjustment been made for that?

27  
28 **DR. CALAY:** The only adjustments that are being made to the  
29 release mortality in the stock assessment model are changes that  
30 occurred with the imposition of circle hooks and venting  
31 requirements. We have some scientific information from academic  
32 studies that have allowed us to make a change in the discard  
33 mortality rates due to those events.

34  
35 We have not considered whether the depth of fishing changed from  
36 the time period you were discussing. We do have some  
37 information about the depth of fishing that we use, and we have  
38 some supplemental surveys that are also providing additional  
39 information, like iSnapper, about depth of fishing.

40  
41 Depth of fishing is a field in the commercial data that we  
42 receive, and it's not a field that we often have a lot of faith  
43 in, because we do find that fishermen tend to report one depth  
44 of fishing frequently, and it's not certain whether they're  
45 fishing at the same depth of fishing or that's just what they  
46 always write down.

47  
48 We don't have depth of fishing on our recreational datasets at

1 all, and so we have to infer it from what information we have  
2 about their fishing location, which sometimes is just Florida,  
3 and so it's very difficult for us to use that sort of detailed  
4 information in the stock assessment context, because the data  
5 that we actually have available to us is often quite limited in  
6 what sort of information is collected.

7  
8 **MR. VALENCIANO:** I would suggest that, since the onset of  
9 fishing in state waters being increased, that those state waters  
10 are hardly ever -- I know on the coast of Texas, unless you're  
11 on the far south end of Texas, those waters -- Of course, they  
12 do go farther out, but like in Louisiana, if you have the three  
13 miles, as opposed to the nine miles that we had last year or the  
14 year before, most of that water is less than a hundred feet, and  
15 so the increased catch of red snapper in state waters in  
16 Louisiana, even though the numbers are going up, the discard  
17 rate mortality has to have gone down drastically, because you're  
18 not catching those fish where you've got the barometric problems  
19 with the fish.

20  
21 **DR. CALAY:** It's certainly something that can be examined.

22  
23 **CHAIRMAN CAPLINGER:** We have a question in the back, the  
24 gentleman in the back.

25  
26 **MR. PETER HOOD:** Just back when you were talking about descender  
27 devices, I am on a group that is working with some of the money  
28 from the oil spill, and, basically, we're working to develop a  
29 program that will look at fish descender devices, and it will  
30 look at getting fish descenders out into people's hands and  
31 covering the outreach efforts, as well as supporting a  
32 scientific study on both how well the descending devices work  
33 Gulf-wide as well as looking at fishermen's attitudes about  
34 descender devices and how they may change with some of these  
35 outreach activities. It's certainly, within the open ocean,  
36 something that people are thinking about, and this is one of the  
37 projects that I think will be going forward.

38  
39 **CHAIRMAN CAPLINGER:** That's great, because they do work.

40  
41 **MS. RALSTON:** Is there a way -- You touched on iSnapper, I  
42 think, and is there a way or is it -- It seems to me that you  
43 can get some additional data beyond your standard survey through  
44 using something like iAngler or iSnapper. Is the Science Center  
45 or the council contemplating any actions to expand kind of the  
46 use of those programs that could then be incorporated into stock  
47 assessments and kind of expanding our data knowledge?

48

1 **DR. CRABTREE:** The biggest change right now is the biggest thing  
2 that the council has done is they have approved an amendment to  
3 require electronic reporting on the charter boat fleet, and part  
4 of the requirement is the electronic logbook has to have a  
5 position recording device, and so that's 42 percent of the  
6 recreational catch right there.

7  
8 When that is implemented and we have it, at least for that part  
9 of the fleet, we would have information about what depth you're  
10 fishing in, and so that would be an improvement, and there are  
11 lots of things underway now to look at how to use self-reported  
12 data through iSnapper and iPhones and that kind of thing from  
13 private recreational fisheries, and I think a lot of attention  
14 is going to continue with that, but there are all kinds of  
15 questions about what would be the inherent biases of that kind  
16 of data, but, if we could get some of that information, you  
17 could potentially get some depth information out of people.

18  
19 **MR. VALENCIANO:** On the egg production, I know from there we can  
20 see what the -- Depending on the size of the fish, what the egg  
21 production is, and do we have any data that can quantify the  
22 amount of eggs being produced as a biomass or any kind of data  
23 that would see those numbers increasing or decreasing? Really,  
24 by looking at how much they produce, that's fine, but we don't  
25 know how many fish we have in each, or do we, that we can  
26 calculate whether the egg production in the Gulf is going up,  
27 whether west or east or both?

28  
29 **DR. CALAY:** That's exactly what a stock assessment can produce,  
30 and I've got some slides that will show you exactly that.  
31 Moving on, remember that we're just talking about data inputs at  
32 the moment, and so I'm continuing with what sorts of data inputs  
33 are contained in the stock assessment.

34  
35 We use several fishery-dependent sources of information to  
36 construct indices of abundance, and we also call these catch  
37 rates or CPUE series, catch per unit effort. In this case, I am  
38 showing you commercial handline, and it's also broken out east  
39 to west, and this is an example where, due to management  
40 regulations, in particular the imposition of IFQ, this series  
41 has been truncated now, because fishing behavior has changed in  
42 such a way that we don't believe that this series tracks  
43 abundance anymore.

44  
45 Until such a time as we can determine and quantify how these  
46 changes in fishing behavior have changed the catch rates of the  
47 commercial handline fishery, we no longer utilize that  
48 information after the imposition of IFQ as an index of abundance

1 of the stock, and so this is a case where we need some  
2 assistance from socioeconomists to try to recover this  
3 information for use in the stock assessment after 2007.

4  
5 We also have a commercial longline index, which is not shown,  
6 and we have fishery-dependent indices from the recreational  
7 sector, and this happens to be MRFSS, or MRIP, and it's the  
8 private and charter boat modes combined. The blue is just the  
9 information from the 2014 stock assessment, and the red is the  
10 newest series that we have just produced for the assessment to  
11 be conducted in 2018.

12  
13 In the east, the series is generally increasing for  
14 recreational, private and charter boat, fishing, suggesting that  
15 the population is increasing in the east and also in the west,  
16 although, in the most recent years, you do see somewhat of a  
17 downturn. It's unclear whether that is -- Well, we haven't run  
18 the stock assessment model yet, and so it's unclear yet whether  
19 that will be interpreted as a signal in abundance or a signal  
20 in, for example, a regulatory effect.

21  
22 We have several fishery-independent indicators of abundance, and  
23 this is the NMFS bottom longline survey in the east and west.  
24 This is an indicator of the adult spawning stock biomass, and  
25 the important thing to see here is that, in both the east and  
26 the west, this information indicates an increase in the spawning  
27 stock biomass, a rapid increase, in the recent years.

28  
29 This particular index begins in 1996, and so, since 2007,  
30 roughly, the stock in the east and the west is thought to have  
31 increased dramatically, and the same trend is seen in the SEAMAP  
32 larval survey, which is also an indicator of spawning stock  
33 biomass, egg production of adult spawners. This series is  
34 spotty, because, in some years, they either have not sampled or  
35 don't support the estimation. You can see still that, since the  
36 time series began, in this case 1986, these series both indicate  
37 an increase in abundance of the spawners.

38  
39 We use age composition data, and this is from fishery-dependent  
40 data sources, and this is from readings of the otoliths, which  
41 is shown here. It's a bone that the fish lay down in annual  
42 increments, and you can actually read them, like tree rings, to  
43 see about how old the fish is, and we have that information  
44 beginning, roughly, in the early 1990s through the present day.  
45 It's over 100,000 otolith observations, which is a very large  
46 amount.

47  
48 In this case, this is just showing you the age composition of

1 the commercial handline fleet in the east, and all this is  
2 really telling you is that most of the fish that are actually  
3 captured by that fishery are from ages about two to ten. That  
4 age composition is relatively static through time, which would  
5 suggest that the stock is not increasing rapidly, which is a  
6 tension in the stock assessment model.

7  
8 One of the reasons that we think that this occurs is because of  
9 the highly-concentrated nature of the way these fisheries  
10 operate, and so, essentially, you're operating in an area of  
11 high fishing mortality, but, outside of these areas of very high  
12 fishing mortality, we believe that the stock may be increasing  
13 faster in those places.

14  
15 There is also an element of selectivity here, and so, if this  
16 fleet cannot physically capture animals of larger size, they  
17 won't be represented in the age composition. The stock  
18 assessment model does account for selectivity.

19  
20 We also have information about discards from headboat observer  
21 programs and commercial observer programs operating in the Gulf  
22 of Mexico, and it basically shows, as you would expect, that  
23 these fish are young, roughly ages-zero to five for the  
24 recreational, and about the same for the commercial handline,  
25 although there are some older fish also discarded in the  
26 commercial fisheries.

27  
28 An important source of information is the shrimp bycatch. The  
29 way the stock assessment is actually modeled, we fit to shrimp  
30 effort, because it's a more reliable source of information, and  
31 then we scale that bycatch estimate using some of the  
32 information that comes out of our bycatch estimation procedure,  
33 but the important aspect here is that shrimp effort has declined  
34 dramatically after about 2007, and so that has meant the shrimp  
35 bycatch is much smaller now than it was say in the 1990s. It's  
36 a less important source of removals in the east and west.

37  
38 **DR. CRABTREE:** One thing that is in the fishery management plan  
39 is there is a cap on shrimp effort. If we go over it, the  
40 shrimp fishery is shut down in the western Gulf, predominantly,  
41 between a depth of I think ten and thirty meters, which is where  
42 most of the bycatch occurs, and so we have effectively allocated  
43 a fraction of the fishery to the shrimp fleet. If they catch  
44 more than we think they are, they would be shut down, and they  
45 have never exceeded the cap in the time we've been monitoring,  
46 but that is in the fishery management plan.

47  
48 **MS. RALSTON:** Roy, if we're allocating a portion -- Basically,

1 we have almost a third sector, it seems like then, the shrimp,  
2 and is that kind of an accurate way to look at it?  
3  
4 **DR. CRABTREE:** You could think of it that way. I mean, it's an  
5 effort cap, and so that's essentially saying, all right, they're  
6 going to catch this many, and so it effectively is like an  
7 allocation.  
8  
9 **MS. RALSTON:** How does that cap relate to the graph? Was the  
10 cap set back more like at 1995 levels or are we more at 2009  
11 levels or where --  
12  
13 **DR. CRABTREE:** It's set much closer to recent levels than it is  
14 to the historical.  
15  
16 **MS. RALSTON:** I was just wondering if there was a little bit of  
17 wiggle room, because it has decreased over time, that it would  
18 be --  
19  
20 **DR. CRABTREE:** We set it after that decreased curve. We set the  
21 cap, I think, in 2007, and so we knew that decrease had  
22 happened.  
23  
24 **MS. RALSTON:** Okay.  
25  
26 **DR. CRABTREE:** Then we at one time, since the stock started  
27 recovering, actually adjusted the cap upward a little bit, I  
28 think.  
29  
30 **MR. BOYD:** Roy, so we have two caps. We have one on the number  
31 of fishermen that are allowed because of the limited entry, and  
32 then we have another on the actual catch production, right?  
33  
34 **DR. CRABTREE:** You're talking about in the shrimp fishery?  
35  
36 **MR. BOYD:** In the shrimp fishery.  
37  
38 **DR. CRABTREE:** Yes, and so shrimp permits are under limited  
39 entry, and so there's a limit on how many federally-permitted  
40 shrimp boats there can be. Then there is, separate to all of  
41 that, the cap on effort, and the council gets -- I think we get  
42 like quarterly reports, but we get an annual report every year  
43 that shows where the effort is relative to the cap.  
44  
45 **DR. CALAY:** We also have -- This is fishery-independent  
46 information, again. We have this ROV camera survey of  
47 artificial reefs, and the locations are shown here, although the  
48 plot is difficult to read, but, essentially, we have Western

1 Florida, Dauphin Island Sea Lab participating, and Panama City.  
2 They are mostly northeastern Gulf of Mexico observations from  
3 2005 to 2012.

4  
5 We are using this information right now as a fishery-independent  
6 source of length composition or age composition information in  
7 the stock assessment model, and so I'm going to go over just a  
8 few aspects of the stock assessment results. There is also a  
9 SEDAR stock assessment report that I can refer you to that  
10 contains a great deal more information than I want to try to  
11 present here.

12  
13 The most recent SEDAR stock assessment of red snapper actually  
14 agrees with the community's perception of red snapper, that they  
15 are in fact more abundant than most fishermen have ever seen in  
16 their time on the water, and that's represented by this plot,  
17 which shows the number of fish, in millions, of age-two red  
18 snapper in the eastern Gulf on the top and the western Gulf on  
19 the bottom.

20  
21 In 1980, there were roughly four-million fish, according to the  
22 stock assessment model, age-two or above, which is about what  
23 the directed fisheries observe. In the eastern Gulf and by  
24 2014, there were as many as twelve million, and so you're seeing  
25 a roughly threefold increase over the 1980 abundance estimates.

26  
27 In the western Gulf, you're seeing an even larger increase, from  
28 roughly five million fish in 1980, ages two and above, to  
29 twenty-five million fish, a fivefold increase, in 2014. The  
30 stock assessment model does agree that there are more fish than  
31 most people have ever observed, in both the eastern and the  
32 western Gulf.

33  
34 **CHAIRMAN CAPLINGER:** So what is your target?

35  
36 **DR. CALAY:** Well, I will show you the target. It's coming up.  
37 What led to this increase in red snapper? From our perspective,  
38 at least, and this just shows you the catch levels, in millions  
39 of pounds, and so, basically, in 2007, we had a rebuilding plan,  
40 which was revised, and it resulted in a lower fishing mortality,  
41 lower catch limits, and we ended overfishing at that time.

42  
43 Since then, the stock has actually rebuilt, or started to  
44 rebuild, I should say, and so, as the stock has increased, so  
45 have our estimates of the annual catch limit. They have  
46 continued to increase throughout time, until the 2014 stock  
47 assessment, where we actually recommended over fourteen million  
48 pounds for an ACL.

1  
2 There has also been a very marked decline in shrimp effort, and  
3 this is an important occurrence. As this market declines, and I  
4 think it's a roughly 80 percent decline in shrimp effort has  
5 occurred, that has greatly reduced the mortality on the age-  
6 zeroes and ones.

7  
8 We have also seen a strong recruitment that occurred in 2004  
9 through 2006, and remember this is a long-lived species, and so  
10 animals that were born in 2004 through 2006 entered our  
11 fisheries in the late 2000s, and, to some extent, are still  
12 promoting this rapid rebuilding today, as they become  
13 increasingly important reproductively.

14  
15 This is a figure that essentially shows you a measure of fishing  
16 mortality, and so this happens to be the fraction of red snapper  
17 stock that are removed by fishing, ages-three and above in this  
18 case, which is a measure of fish removed either by landings or  
19 by dead discards from the directed fisheries in the Gulf.

20  
21 Again, I am stealing figures from other presentations, and so  
22 the red here now is the 2014 assessment, and the blue is the  
23 previous assessment to that, which was SEDAR 31, and so you can  
24 ignore the two colors. It was just a demonstration that the  
25 model results are similar between those two assessments, but the  
26 important message here is that, in roughly 2006, before the  
27 rebuilding plan was revised, we were catching about 30 percent  
28 of the numbers of fish in the Gulf each year. 30 percent of the  
29 fish we were removing by fishing pressure each and every year,  
30 and that is a large number.

31  
32 After the rebuilding plan was revised and overfishing ended, by  
33 2010 through 2014, now we're only removing about 10 to 14  
34 percent of the stock every year, which is a number that  
35 basically overfishing has ended and the stock is beginning to  
36 rebuild.

37  
38 You also see that the number of adult fish, and I apologize that  
39 we keep changing the age reference on you, but this is just now  
40 a measure of the fish ages-four and above, and so these have  
41 some reproductive potential. During the period of 2000 through  
42 2006, we had a six-month fishing season, and the stock was  
43 considered both overfished and undergoing overfishing.

44  
45 In 2007, we put in place the new rebuilding plan. Since that  
46 time, your age structure has started to recover, and so you have  
47 more fish that are now ages-five, six, seven, eight, nine, and  
48 ten, and this change is roughly a threefold increase in animals

1 age-four since 2007, and that means that your spawning stock  
2 biomass is increasing Gulf-wide.

3  
4 This gets partially -- I will continue with this train of  
5 thought, but, partially, your question is why are they still  
6 considered overfished and what is our target for recovery? They  
7 are still considered overfished for essentially this reason.  
8 This animal lives to be up to fifty years old, and so, in 2000,  
9 this was a period of time where overfishing was occurring, and  
10 the stock was considered fairly depleted.

11  
12 There were very few animals older than five years of age, and so  
13 we were allowing very few of the animals to reproduce at all, in  
14 fact. In 2016, the stock was roughly about half of the  
15 rebuilding target, and so it was about 15 percent of the  
16 unfished reproductive potential, if you had no fishing at all,  
17 and, at this time, you see we're rebuilding now. Ages-six  
18 through eleven are becoming more abundant. See how we're  
19 rebuilding the age structure? You're seeing it now in ages-six  
20 through eleven.

21  
22 Now, our target at this time is to rebuild the stock, by 2032,  
23 to 26 percent of its unfished reproductive potential, and what  
24 that would look like, in age composition, is this bottom panel,  
25 and so, if you were to actually achieve that rebuilding target,  
26 this is what your age composition would look like. You would  
27 have animals filling the age composition all the way out. You  
28 see that ages-eleven through nineteen are now filled, and you  
29 have far more animals in this plus-group of age twenty-plus.

30  
31 In this case, you have bigger, older animals with a higher  
32 reproductive potential, and that's what the current rebuilding  
33 target would look like, in terms of age composition.

34  
35 This is just a simplified graphic, and so spawning potential --  
36 Here, what I'm talking about is relative to what the stock would  
37 be at unfished condition, and so how many eggs would the stock  
38 produce at unfished condition would be 100 percent of your  
39 spawning potential.

40  
41 In 1950, the model estimates we were at roughly 45 percent of  
42 that unfished spawning potential. We had depleted that, by  
43 1990, to about 2 percent, and so we would call that, in 1990 --  
44 In our vernacular, that would be called SPR 2, which is a very  
45 severe depletion of the stock.

46  
47 By 2006, it had started to recover somewhat, up to about a 4.9  
48 percent spawning potential, or roughly 5 percent of its unfished

1 reproductive potential. Once we did put in place measures that  
2 ended overfishing, we started this rapid recovery of the stock.  
3 Currently, well as of 2017, our model estimates that we're at  
4 about 17 percent of the unfished reproductive potential, which  
5 happens to be about the same level we were at in 1967, and so we  
6 have recovered to essentially where we were in the late 1960s,  
7 and we're rebuilding towards this 26 percent target.

8  
9 If we achieve this by 2032, the model -- What we're trying to  
10 achieve is essentially 26 percent of that unfished reproductive  
11 potential, which we think corresponds roughly to the maximum  
12 sustainable yield.

13  
14 **MR. BROWN:** Where are we going to put all these fish?

15  
16 **DR. CALAY:** Where are we going to put all of these fish? In the  
17 Gulf.

18  
19 **DR. CRABTREE:** I don't know if you have one that shows this  
20 separately for the west and the east.

21  
22 **DR. CALAY:** Yes, I do. It's coming. I do have that shows this  
23 separately east and west, and I can jump to it right now. This,  
24 I just added, and so it's fuzzy and not particularly attractive  
25 to look at, but I added it because of the discussions that were  
26 occurring when we talked about socioeconomic.

27  
28 The panel on your left is the western Gulf. In the red here, on  
29 the right, is the eastern Gulf, and this is actually just a  
30 demonstration of the effect of allocations in the east and west,  
31 but I can also tell you that your current allocation of 49  
32 percent recreational and 51 percent commercial is actually --  
33 Well, in the west, it's this dark blue color, and so you see  
34 that -- I will read this to you, because it is very difficult to  
35 see.

36  
37 In about 2000, in the west, we were at about 5 percent of your  
38 unfished spawning potential, but, in 2000, say right about now,  
39 we're above 20 percent of the spawning potential and rapidly  
40 rebuilding towards our target, and so the west is nearing or at  
41 even its rebuilding target now, and it's continuing to increase  
42 at your current allocation. In this particular projection, in  
43 2032, you're at 35 percent of your unfished condition, which is  
44 above the rebuilding threshold in the west, according to our  
45 current projections.

46  
47 Now, the effect in the east is opposite. In this case, your  
48 current allocation is the most optimistic one, and it's actually

1 showing, and you can see this effect, unfortunately, and this  
2 might change as we update this stock assessment. This is from  
3 the 2014 stock assessment, and some of our results today  
4 indicate that the trends in the east aren't as pessimistic as  
5 the 2014 assessment was seeing, and so we may see some changes  
6 occurring, but the important thing to note is that the eastern  
7 stock actually achieves about 12 percent of the unfished  
8 condition in 2015, roughly, and then it starts to decline at the  
9 current fishing allocations between the commercial and  
10 recreational sector. The western stock continues to increase,  
11 and, because you're managing this Gulf-wide, you achieve the  
12 rebuilding threshold.

13  
14 **DR. CRABTREE:** So the western Gulf rebuilds above the target to  
15 compensate for the eastern Gulf never reaching the target. The  
16 more you shift the allocation from the commercial to the  
17 recreational, the bigger that disparity becomes, because most of  
18 the recreational fishing is in the eastern Gulf, and so, the  
19 more you reallocate to the eastern Gulf, the lower the rate  
20 where you recover to in the east becomes, and the higher the  
21 recovery becomes in the western Gulf.

22  
23 **DR. CALAY:** You're going to build a big population in the west  
24 that is going to essentially subsidize a lower population in the  
25 east.

26  
27 **CHAIRMAN CAPLINGER:** You're suggesting this clearly pushes the  
28 need for separating the Gulf and managing two different sectors,  
29 and is that what you're saying?

30  
31 **DR. CRABTREE:** If you live in Texas or Louisiana, that would  
32 certainly be a sensible -- If you live in Florida or Alabama,  
33 you might --

34  
35 **CHAIRMAN CAPLINGER:** No, it's not even that, but what you're  
36 saying is that we're going to continue on a downward trend in  
37 the eastern Gulf, and they may have less opportunities to fish.

38  
39 **DR. CRABTREE:** I'm skeptical of the rate of decline like that,  
40 and I suspect, when the new assessment comes out, it won't be  
41 nearly as bad as that, because this is all dependent on  
42 assumptions about recruitment, which we don't really know.

43  
44 Now, the positive side of that is, if that stock in the eastern  
45 Gulf actually declines like that, that would mean lower catch  
46 rates in the eastern Gulf and smaller fish overall, which would  
47 have the net effect of increasing the season length.

48

1 I take your point, and the western Gulf is giving up days to  
2 compensate for the eastern Gulf, and so, from that sense, yes,  
3 there is a certain level of a fairness issue that you could  
4 argue regionally.

5  
6 **MR. MARQUEZ:** When you're looking at managing the stock for the  
7 whole Gulf, just from the spawn itself, when they spawn, do the  
8 eggs and larvae setting in locally, closer to where the spawn  
9 is, if you have this decreased pressure in the west, and they're  
10 continuing to grow at a rapid rate over there, or the stock is  
11 continuing to grow at a rapid rate, or is it circulating all  
12 through the Gulf?

13  
14 **DR. CALAY:** It certainly does circulate through the Gulf, to  
15 some extent, although we do find that there is more -- The west  
16 subsidizes the east more than the east subsidizes the west.  
17 Fish that are spawned in the east are more likely to stay in the  
18 east, because of the way the currents flow, essentially.

19  
20 **DR. CRABTREE:** There is a lot of information that has developed  
21 over the last five or six years that looks at the look current  
22 that comes up in the Gulf of Mexico and goes through the Florida  
23 Straits, and there is evidence that, depending on how the loop  
24 current is configured, more of the larvae may be retained, and  
25 so you get good recruitment. In other configurations, more of  
26 them get washed out of the Gulf entirely and you have poorer  
27 recruitment, and so there is that.

28  
29 Then the other part of all of this is we don't really see much  
30 of a relationship between the size of the spawning stock and  
31 recruitment, and so, even when the stock was fished way down, we  
32 had some really big recruitments come out of it, and that gets  
33 into the whole level of what are the yields going to be.

34  
35 The way the model is configured now, we're harvesting MSY  
36 already, and so, even though we rebuild, the quotas don't go up.  
37 Now, that could turn out not to be the case, if in fact we do  
38 see more recruitment as the spawning stock grows, but, at least  
39 at this point, we haven't seen much of a relationship there, and  
40 so it's not really clear whether the quotas will go up above  
41 where they are now or whether this is about all that we're going  
42 to get out of the stock.

43  
44 **CHAIRMAN CAPLINGER:** We have a question in the back.

45  
46 **MR. JASON DELACRUZ:** Is this a good time for you to talk about  
47 the change that -- The minimum stock size threshold rule that's  
48 already been agreed upon, but hasn't been enacted yet and how

1 that would affect that previous slide, on that, and if it would.  
2 I don't know, but I've already been curious about that, and,  
3 having everybody in this room, this might be a good thing for  
4 this group to understand.

5  
6 **DR. CRABTREE:** The council approved a change to the minimum  
7 stock size threshold, which is the threshold that defines  
8 overfished versus no longer overfished, and it used to be set  
9 based on a formula that was based off of the natural mortality  
10 rate, and so it used to be at about 92 percent of the biomass  
11 when it's rebuilt.

12  
13 The council changed that to 50 percent of the biomass at which  
14 the stock is rebuilt, and, based on that, the stock is no longer  
15 overfished, and so we have already put in a change to the annual  
16 report on stock status to Congress to change red snapper from  
17 overfished to not overfished.

18  
19 Now, that doesn't mean that the stock is rebuilt, because it  
20 won't rebuild until we Gulf-wide hit that 26 percent spawning  
21 potential threshold, and we're not there yet, but it does mean  
22 the stock is no longer classified as overfished.

23  
24 Now, the significance of that, at this moment, is the  
25 regulations have provisions for paybacks of quota overages, but  
26 the payback is only required if the stock is overfished, and so,  
27 last year, all the evidence we have is that the recreational  
28 fishery exceeded its annual catch limit, and there would have  
29 been a payback required if the stock had remained overfished,  
30 but it no longer is, and so there's not a payback required, and  
31 my guess is the quotas will be the same this year as they were  
32 last year.

33  
34 **DR. CALAY:** I did want to agree with Roy that the decline, the  
35 relatively steep decline, that you see here in the east, there  
36 were two things that led to that in the 2014 stock assessment.  
37 One was that we had some estimates that showed low recruitment  
38 in the most recent years, and, also, we had some information  
39 about declining catch rates in the east, and it does seem like  
40 our most recent evidence that we just received says that both of  
41 those things weren't as severe as they were thought to be in  
42 2014 for red snapper, and so it may be that this result changes  
43 when we redo the assessment that you will see in 2018. It may  
44 not be as severe of a decline predicted in the east.

45  
46 **MR. WILLIAMSON:** Let me pose a question to you, Roy. Assuming  
47 that the Secretary of Commerce signs off on the proposition that  
48 the stock is no longer overfished, where do you see this taking

1 us as far as the available fishing days for the recreational  
2 sector?

3  
4 **DR. CRABTREE:** If we had to pay back the overrun last year, I  
5 think we would have had to pay back probably a couple million  
6 pounds of fish, and that would have made it difficult to have a  
7 season, and so it means the season will be longer than it  
8 otherwise would have been.

9  
10 Now, that is all complicated by we don't know how the fishery  
11 will be managed come later this year, because all the states  
12 have applied for exempted fishing permits to allow state  
13 management of the fishery. The council is going to look at  
14 those at the next council meeting.

15  
16 If that is put in place, then we will have different season  
17 lengths off of different states. Whether that is going to  
18 happen or not, I don't know yet, but, generally speaking though,  
19 that means there will be more days than there otherwise would  
20 have been had there been a payback.

21  
22 **MR. BROWN:** So we can look forward to a thirty-nine-day season  
23 this year? Is that what I'm hearing?

24  
25 **DR. CRABTREE:** No.

26  
27 **CHAIRMAN CAPLINGER:** Shannon, let's go.

28  
29 **DR. CALAY:** I am going to try to cover just two more slides of  
30 this presentation before our lunch break, and then I've got some  
31 other things that are kind of on a secondary topic that we can  
32 do after the lunch break.

33  
34 I was asked by John to try to describe how these stock  
35 assessment results actually result in OFLs and ABCs, and,  
36 without using mathematics, which nobody wants to see, not even  
37 me, that's hard to do, and so I'm going to try to do it just  
38 graphically, and maybe I will be successful, and I don't know.

39  
40 You probably are aware that the overfishing limit essentially  
41 corresponds to the maximum sustainable yield. The acceptable  
42 biological catch is a level that is likely to be below OFL, and,  
43 if it is below, that buffer is meant to be representative of  
44 your scientific uncertainty. Then there is an annual catch  
45 limit, which can be below ABC, which might incorporate then  
46 management uncertainty, and that's my oversimplified description  
47 of the national guidance.

48

1 Essentially, we use projections of the stock assessment to  
2 estimate these OFL and ABC catch levels, and, to do that, we  
3 have to make assumptions about the recruitment that is going to  
4 occur in the future and about how the fisheries will operate in  
5 the future, and so what we've done is we've assumed that  
6 recruitment will be essentially equal to the average of recent  
7 period recruitment, which we use 1984 through the present.

8  
9 We assume that the fisheries will continue to operate as they  
10 have in the most recent year, 2014, or, in this case, it was  
11 2012 through 2014 or something like that, but the most recent  
12 years. That means that the sizes that they catch, how they  
13 target animals, that all those sorts of things don't change, and  
14 that's complicated, because we work in a very complex regulatory  
15 environment, and so sometimes things do change, but that's what  
16 we assume.

17  
18 Then we can estimate essentially levels of fishing mortality  
19 that will lead to rebuilding, and so, for example, in this panel  
20 marked "fishing mortality", the blue is the F, the fishing  
21 mortality rate, that allows the stock to rebuild to our  
22 management threshold of 26 percent SPR by 2032, and the red is  
23 what will allow the stock to rebuild to that same threshold  
24 eventually, but without a limit on the year that that actually  
25 happens.

26  
27 We would call those two rates -- The red fishing mortality rate  
28 is FMSY. It achieves our MSY proxy eventually, and I think it  
29 actually happens in 2060-something, according to the stock  
30 assessment, and, the blue, we would call F rebuild. It's the  
31 level that achieves the management threshold in 2032, by  
32 definition, because that's the management plan.

33  
34 We project those fishing mortality rates that are right here  
35 shown, and we assume that recruitment will be about the average  
36 level of recent years and that fishing will continue, fisheries  
37 will continue, to operate as they have operated, and that leads  
38 to essentially an estimate from the stock assessment of your  
39 spawning stock biomass, and, in this case, relative to that  
40 unfished condition, what here is SSB zero, and so you see that,  
41 under red, which is FMSY, your SSB is going up each year.

42  
43 That F rebuild fishing mortality rate is actually lower, and so  
44 your spawning stock biomass is recovering a little faster, but  
45 the model also then can predict, given that this -- Given our  
46 assumptions, the model can then also predict the catches that  
47 will be achieved under those two fishing mortality rates, FMSY  
48 and F rebuild.

1  
2 Your OFL is determined from the FMSY projection, and so you see  
3 that it starts in 2015 here. In 2015, it starts a little above  
4 fifteen-million pounds, and it declines a little bit to  
5 equilibrium here, at roughly thirteen-and-a-half-or-something-  
6 million pounds, and the blue, because it's a slightly lower  
7 level of fishing mortality, allows a slightly lower catch, and  
8 so that's ABC. ABC comes from your projection of F rebuild.  
9 It's also a little bit buffered to accommodate scientific  
10 uncertainty.

11  
12 **DR. CRABTREE:** This is assuming that the recruitment levels stay  
13 roughly where they are now. If it turns out that recruitment  
14 goes up as the stock spawning potential increases, then those  
15 yields will go up in the future. We don't know if that will  
16 happen or not.

17  
18 **DR. CALAY:** It also depends, unfortunately, on allocation and  
19 selectivity, and those things change. Selectivity changes if  
20 you change the size limit. Allocation changes if you -- The  
21 selectivity patterns also change if you change allocations,  
22 because the commercial and recreational fisheries have different  
23 inherent selectivity patterns, and so the advice always changes  
24 based on what really occurs, based on compared to what we  
25 assumed would happen, and so, every time you make a management  
26 change, we essentially are going to have to rerun projections to  
27 give you better information about OFL and ABC.

28  
29 **DR. CRABTREE:** I think any stock assessment scientist will tell  
30 you to take projections into the future with a big grain of  
31 salt.

32  
33 **DR. CALAY:** Exactly.

34  
35 **DR. CRABTREE:** They are very uncertain.

36  
37 **DR. CALAY:** That's why, when you look at SSC reports, for  
38 example, we typically only prefer to give information roughly  
39 three years into the future, or maybe five, and we have shown  
40 you to 2032 here because that's the rebuilding plan, which ends  
41 in 2032 for red snapper, but, because we can't predict what will  
42 happen with fishing operations or recruitment thirty years into  
43 the future, these have very large uncertainty estimates.

44  
45 That is essentially how the stock assessments produce catch  
46 advice, and that's the overly-simplified version. Now, it is a  
47 little bit -- Maybe some of you have noticed that it's a little  
48 bit strange to think that a stock is not fully rebuilt and yet

1 we're saying that, in 2015, you will actually have a higher OFL  
2 than you would way out here in what we call equilibrium.

3  
4 We think we're riding those high recruitments still. They are  
5 still influencing our perception of the spawning stock biomass,  
6 but those fish will eventually die of either fishing mortality  
7 or natural mortality, and the levels of recruitment that are  
8 projected are actually lower than those high years that occurred  
9 in 2004 through 2006, and so this is a recruitment feature, we  
10 believe.

11  
12 Now, the last slide that I am going to talk about, before lunch  
13 at least, is some of the primary criticisms that we have  
14 received about the stock assessment, and these are the major  
15 ones, certainly.

16  
17 There is a widespread belief that NMFS overestimates the  
18 recreational catch, and I will touch on that a little bit after  
19 lunch. There is also a common misunderstanding that NFMS does  
20 not count fish on artificial reefs, and I can address that a  
21 little bit after lunch.

22  
23 What I won't get too much into, unless this group prefers to, is  
24 the rebuilding target itself. In the case of recreational  
25 fisheries, recreational anglers, MSY is not really relevant.  
26 What's really more relevant is maybe maximum sustainable fishing  
27 opportunity, and so Magnuson itself does specify MSY, and the  
28 rebuilding target that we have given you is kind of a -- It's  
29 consistent with Magnuson, to some extent, but we have spent a  
30 great deal of time examining other potential rebuilding targets,  
31 based on council requests and other primary literature.

32  
33 Certainly the stock assessment model -- Basically, the council  
34 needs to agree upon, with feedback obviously from NOAA, what are  
35 acceptable reference points or rebuilding targets. The stock  
36 assessment model itself is flexible.

37  
38 I mean, we can provide the information, no matter what  
39 rebuilding target is eventually agreed upon, and we can explore  
40 how well those rebuilding targets function, using management  
41 strategy evaluation and the stock assessment model constructs,  
42 and so we can certainly provide information on that, and we have  
43 in the past, and we'll continue to do so, but I don't want to  
44 comment on which one I think is most appropriate, because that's  
45 really way above my paygrade.

46  
47 Certainly we can get into that discussion, if you would prefer,  
48 and so I will go into these primary criticisms a little bit

1 after lunch, and there is only about five slides, or six slides,  
2 left in the presentation.

3  
4 **CHAIRMAN CAPLINGER:** Thank you, Shannon. Is everyone ready to  
5 eat? Then let's take a break.

6  
7 (Whereupon, the meeting recessed for lunch on January 18, 2018.)  
8

9 - - -

10  
11 January 18, 2018

12  
13 THURSDAY AFTERNOON SESSION

14  
15 - - -

16  
17 The Meeting of the Ad Hoc Red Snapper Private Angler Advisory  
18 Panel of the Gulf of Mexico Fishery Management Council  
19 reconvened at the Gulf Council Office, Tampa, Florida, Thursday  
20 afternoon, January 18, 2018, and was called to order at by  
21 Chairman Charlie Caplinger.

22  
23 **CHAIRMAN CAPLINGER:** We're going to move on to the next section  
24 with John, but I wanted to make two other quick comments. Doug  
25 Gregory passed around this MREP program to everybody. If you or  
26 if you know people back home that want to see how the sausage is  
27 made and learn more about how it's made, these are two  
28 opportunities for you to increase your knowledge here, one in  
29 St. Petersburg and the other in Tampa.

30  
31 Then, secondly, I've been jotting down notes for  
32 recommendations, because I know that's the purpose of this, at  
33 the end of the day, to come up with some suggestions to the  
34 council, and so, if you feel strongly about something that we  
35 need to definitely bring up and reiterate and this is something  
36 that needs to be messaged to the council, please say that. Hit  
37 me with a hammer and make sure that I write it down as such, so  
38 that, at the end of the day, we have time to go through the  
39 handful of suggestions and maybe prioritize them or highlight  
40 them, so that we do end up doing something productive today.  
41 With that, I think John is going to talk about state snapper  
42 management.

43  
44 **DR. FROESCHKE:** Actually, Ava Lasseter, Dr. Lasseter, is going  
45 to go through the amendment. She is the lead staff on that, and  
46 then I'm going to follow up with some additional information,  
47 and so I'm going to turn it over to her first.

48

1                   **REVIEW OF RED SNAPPER STATE MANAGEMENT**  
2                   **PRESENTATION: SUMMARY OF RED SNAPPER AMENDMENTS CONSIDERING**  
3                   **STATE MANAGEMENT FOR THE RECREATIONAL RED SNAPPER COMPONENT**  
4

5 **DR. LASSETER:** Thank you, everyone. We have the presentation up  
6 for you that we put together in regard to the state management  
7 program for recreational red snapper. The full documents are  
8 provided on the server, so you can look through those, and I  
9 would encourage you to do so, specifically for kind of a history  
10 of where we're at with this program.

11  
12 I'm not going to go into too much detail with that, but, of  
13 course, and I think Dr. Crabtree touched on this, that we did  
14 start, a few years ago, with an amendment, Amendment 39, and we  
15 termed it regional management for recreational red snapper.  
16 Here, we've just tweaked it to state management, just to kind of  
17 help us differentiate what we're working on.

18  
19 This idea, this concept, has been brought back up, and the  
20 council has been moving forward quite quickly with the  
21 development of these documents, and so I'm going to kind of  
22 start with an overview, as the slide is up right now, on these  
23 amendments, and then we will go into each one and each of the  
24 actions in more depth.

25  
26 Actually, what we have here are six amendments, and so there is  
27 one amendment, and we're calling that the program, the  
28 programmatic amendment, and this is the state management program  
29 for recreational red snapper.

30  
31 Separately, the council has initiated development for a separate  
32 independent amendment for each of the five Gulf states, and so  
33 you have a Louisiana, and on down through the states, management  
34 for recreational red snapper, and so we have six amendments  
35 total.

36  
37 We will go back to the programmatic one, the state management  
38 program, first. This amendment addresses actions that would  
39 affect all of the states, whether or not they are participating  
40 in state management. Therefore, this amendment must be approved  
41 first. It could be approved at the same meeting as one of the  
42 additional individual state amendments, but this one does have  
43 to come first, because it has the actions in it that determine  
44 how much quota each state would get, which components are going  
45 to be participating, and so those are our two actions.

46  
47 The first action is to determine which components to include in  
48 state management, and so, again, we have the recreational sector

1 is divided into two components through the 2022 fishing year,  
2 the private angling and the federal for-hire components, and so  
3 the council will decide whether to manage both components or  
4 just one component underneath state management, and the second  
5 action is how to divide the recreational red snapper ACL amongst  
6 the states, and so you can see how these actions would affect  
7 everybody. It kind of sets the stage for how state management  
8 would work.

9  
10 Individually, there are a couple of actions in each of these  
11 five individual state amendments that first address the  
12 authority structure, how state management is going to be  
13 enacted, how we're going to change the regulations, the rules,  
14 to accommodate to allow individual states to adopt the state  
15 management. Then post-season accountability measures as well,  
16 this ability to modify those so that they apply to just a state  
17 rather than the Gulf-wide ACL.

18  
19 We will go to the next slide, or, actually, let me take a moment  
20 here. First, just to point out, this lays out where the  
21 boundaries would be. This was decided during Amendment 39. The  
22 council agreed on the lines that would be used if necessary in  
23 state management, and we can kind of come back to how this would  
24 actually work as we go through this, but the idea, to this  
25 point, has been that -- The idea that all states, if all states  
26 were participating and had active state management programs,  
27 essentially there would be no lines in federal waters, because,  
28 essentially, federal waters would remain open, and, through an  
29 exemption -- Each of the five states would receive an exemption  
30 from the federal regulations and would be able to -- Their  
31 anglers would be able to fish in federal waters off of any of  
32 the states.

33  
34 It gets a little trickier when you have neighboring states with  
35 one participating and one not, and so those distinctions get a  
36 little more complicated, and we can raise some of those  
37 hypotheticals, if you're interested, later, and I'm just going  
38 to touch on that, at the council meeting in January, the council  
39 will be reviewing exempted fishing permits, EFPs, from the  
40 states. This was NMFS' approach to how they're interpreting a  
41 congressional mandate to allow the states to do a pilot program  
42 for state management. How this is all going to work is still  
43 developing, in order to accommodate this new step in the  
44 process.

45  
46 Now we're in the state management program amendment. Again,  
47 this is the one that would have to be approved first, passed  
48 first, and so the first action addresses the components of the

1 recreational sector to include in the state management programs,  
2 and, in our council documents, there is always an Alternative 1,  
3 which is always your no action, and this is for the purpose of  
4 analysis, in order for staff to provide council members with an  
5 analysis that compares what they're going to be considering  
6 against what is currently in place, more or less status quo, and  
7 so you will always see an Alternative 1 that is no action.

8  
9 Then follows our suite of alternatives that are actually under  
10 consideration, and so, for a state with an approved state  
11 management program, we have three alternatives. First, the  
12 Alternative 2, the state would manage the private angling  
13 component only. Alternative 3 is the state would manage both  
14 its private angling component and federal for-hire components.  
15 Alternative 4, which the council has -- It's currently their  
16 preferred alternative, and that is that each state could choose  
17 whether to manage its private angling component only or to  
18 manage both its private angling and federal for-hire components.

19  
20 For all of the alternatives that I just described, states  
21 without an approved state management program, the separate  
22 components, private angling and federal for-hire components,  
23 NMFS will estimate a separate fishing season for each of those  
24 based on the balance of the recreational sector ACL after, the  
25 states that are participating, their quota has been deducted.  
26 Again, at the federal level, for those states not participating,  
27 the remaining balance of the ACL will be reduced by the  
28 established buffer.

29  
30 I believe Dr. Crabtree also kind of touched on the status of  
31 some of the individual state data collection programs.  
32 Louisiana has been discussing this, I believe, with NMFS a  
33 little bit more. When we were still discussing Amendment 39,  
34 none of the states were as far along in their individual state  
35 data collection programs as they are now, and NMFS was going to  
36 require each state, under state management, to manage towards  
37 the ACT, and that's your buffer.

38  
39 Now, LA Creel, it's my understanding, has finished being  
40 certified, and Tails and Scales and Alabama Snapper Check are  
41 coming along, and NMFS is reevaluating that. If a state is able  
42 to show that it could maintain, constrain, its landings to  
43 within its ACL, this may not be a requirement. I have left a  
44 little note here on this particular slide, but, if you look at  
45 the document, the full-length document, that language is  
46 tempered a little bit, because that is part of the ongoing  
47 discussion for state management. That's the first action, which  
48 components are going to be participating.

1  
2 Let me show you a little further how, visually, the recreational  
3 sector ACL would be divided. For the Alternative 2, for the  
4 private angling component only, which is not the council's  
5 preferred, the recreational sector ACL, you can see how it's  
6 divided between the two components. Then, that private angling  
7 component ACLs, five of those would be created.

8  
9 Even if your state is not participating, it has an assigned  
10 recreational sector ACL that would be used in the event that  
11 your state is participating. If your state is not  
12 participating, that then goes towards the Gulf-wide, with any  
13 other states that are not participating, and NMFS establishes  
14 the common federal season for those states.

15  
16 This is how it would look if the states managed both the  
17 components. Because that component allocation is already on the  
18 books, the recreational sector ACL is still divided first into  
19 those component ACLs and then each one of those ACLs is divided  
20 into the five pieces.

21  
22 That way, if your state has your private angling and your --  
23 It's not averaging your private angling and your state's federal  
24 for-hire landings. It's giving credit, respective to all the  
25 other states, for each of those components, landings components.

26  
27 Then, finally, the council's preferred alternative is to allow  
28 the states to decide, each state to decide what they would want  
29 to do, and so, in the example here, you can see State C -- On  
30 the federal for-hire side, State C has decided to manage its  
31 private angling component only, and so you can see that quota  
32 that would have been that state's component ACL going to a  
33 federal for-hire component ACL, and NMFS would estimate the  
34 season based on the quantity of that quota. I don't see any  
35 questions, and so I'm going to move on.

36  
37 The second action in this amendment determines the  
38 apportionment, the allocation, of the recreational ACL amongst  
39 the states, and there we go again. We have the Alternative 1,  
40 no action, and then the remaining alternatives, which carry on  
41 to the next slide, would allocate the recreational sector ACL  
42 among the states, first based on the average of historical  
43 landings for the years, and we have two sets of years.  
44 Alternative 2 ends, all of the alternatives, in 2015.  
45 Alternative 3 ends them in 2009.

46  
47 What we have are the Options a being the longest time series  
48 with the respective terminal year and Options b back off ten

1 years. Options c back off ten more years, and then our two  
2 Options d are most similar to the way the allocation was  
3 determined in the sector separation amendment, where it gives  
4 half the weight to the longest time series and then half the  
5 weight to the most recent time series, which is essentially  
6 doubling the weight on your more recent time series.

7  
8 To go along with these two alternatives, we have Alternative 4,  
9 which allows the council to select various years that they could  
10 exclude from those preceding alternatives. Now, Options 4a and  
11 4b are excluding 2006 landings, and that was because of the  
12 storms in 2005. In 2010, that was BP oil spill.

13  
14 4c and 4d we provided because, in the sector separation  
15 amendment, the terminal year for the allocation was 2013, and  
16 that has now been several years, and so we set this up as the  
17 Alternative 2 allows the council to select through 2015, but, if  
18 they would like to be consistent with the sector separation time  
19 series, they could select Options 4c and 4d to exclude those two  
20 most recent years, and that just seemed the most efficient way  
21 to lay out those alternatives for the council.

22  
23 Alternative 5 would allocate the recreational sector ACL based  
24 on each state's best ten years of historical landings for the  
25 longest time series, 1986 to 2015. Alternative 6 takes a  
26 different approach, and this is the most recent alternative the  
27 council has added, and it would allocate the recreational sector  
28 ACL among the states based on combining biomass, estimates of  
29 biomass, off of each state and recreational trips.

30  
31 Then the council also specified options that weight each of  
32 those factors differently, and so you have a, b, and c, and  
33 you've got increasing weight on the biomass, 25, 50, or 75  
34 percent, and decreasing weight on the trips on the other side  
35 for those alternatives.

36  
37 **MR. KENNEDY:** A question, please. When it comes to this  
38 Alternative 6, and maybe the lady that did the presentation  
39 before lunch can weigh-in on this also, but, according to the  
40 biomass, I presume that's the sampled biomass now, or is it  
41 where red snapper are supposed to be? Is there any  
42 consideration given to like -- I don't know how you would figure  
43 that out, but is there an assumption that red snapper are  
44 supposed to be uniformly distributed throughout the Gulf or red  
45 snapper -- Are there supposed to be more of them off of the  
46 Alabama coast than there are off of the Naples coast? By  
47 supposed to be, I mean you would think they have a preferred  
48 habitat.

1  
2 **DR. CRABTREE:** Yes, and I don't think we ever expect any fish to  
3 be uniformly distributed everywhere, because that's just not the  
4 way the world is. I think where the council is coming from here  
5 though is what's the distribution of the biomass now, and there  
6 are different ways to look at that, but I think what we're  
7 looking at here is there is a paper that was published last year  
8 that actually looked at the different habitat types and how  
9 they're distributed in the Gulf and then looked at the abundance  
10 of snapper on all the habitat and then calculated out where is  
11 the biomass.

12  
13 Then you can go into that and draw the state lines out and  
14 estimate what fraction of the biomass is off of each state, and  
15 I think that's probably what we're looking at here. The other  
16 way you could do is to take the stock assessment and say, okay,  
17 here is the west Gulf biomass and here is the east biomass and  
18 then somehow allocate that out, but I think this is relying on  
19 that paper.

20  
21 **MR. BROWN:** Okay, and so that paper seems to be weighted based  
22 on preferable habitat a little bit anyway, correct?

23  
24 **DR. FROESCHKE:** Yes, and the next item on the agenda here is I  
25 have a map of that that's based on the paper, and I can show it  
26 and we can put it up on the screen and take a look at it.

27  
28 **MR. BROWN:** Is there any historical data as to compare what the  
29 biomass is out there today to what there was in 1960 or before,  
30 so that we could know, as was just said, what's it supposed to  
31 be?

32  
33 **DR. CRABTREE:** I think that would be the stock assessment, and  
34 you could look at the stock assessment and see what historically  
35 the west was relative to the east, but I don't think you could  
36 parse it any finer than that in the assessment.

37  
38 **DR. LASSETER:** This will be based on a snapshot in time of  
39 biomass, and John, again, will pick up more on this when he gets  
40 to the decision tool, but the approach is based on a peer-  
41 reviewed paper that the SSC then reviewed and supported using  
42 how NMFS interpreted, applied, the paper to this issue of trying  
43 to estimate the biomass, and that is going to be presented to  
44 the council for the first time in January, and so the council  
45 has not actually seen, as a body, those values yet. They will  
46 be reviewing that.

47  
48 I do want to also point out in here that, for all of these

1 alternatives for allocation, it is a method, a formula, that is  
2 being determined for the allocation that the council is  
3 determining and not the final percentages, and the significance  
4 of that is that, should information change, should there be  
5 another calibration of MRIP landings, should some other  
6 information change, say the biomass be selected and then more  
7 recent information becomes available, the most recent  
8 information would be plugged into the formulas. Again, keep in  
9 mind that it's the method, it's formula here, that is being  
10 selected and not the resulting percentages.

11  
12 With that, I'm going to turn this over to Dr. Froeschke, who has  
13 put together a decision tool that is actually web-based, and the  
14 link is available in your briefing book, that lets you kind of  
15 look at the different alternatives and put in the different time  
16 series, and I will turn it over to him and let him explain it  
17 more thoroughly.

18  
19 **RED SNAPPER STATE MANAGEMENT DECISION SUPPORT TOOL**

20  
21 **DR. FROESCHKE:** Hopefully you can see this. What I did on this  
22 is we determined, not surprisingly, that there might be some  
23 public interest in this, and, in order to consider -- To jump to  
24 the question on the allocation part about what do I get in a  
25 particular area for each of the alternatives, we wanted to make  
26 something that was a little more interactive to explore these  
27 kinds of things, and so we built a website. It's available at  
28 the URL up here, and it's in your briefing materials. If you go  
29 to the [portal.gulfcouncil.org](http://portal.gulfcouncil.org), you can link to it through there.

30  
31 What it is, on the top, there are a number of tabs representing  
32 each of the alternatives, and these are the alternatives  
33 reflected in Action 2 on the programmatic document, and I'm just  
34 going to skip to Alternative 2, but, essentially, what this does  
35 is it provides a panel on the left with the options that are  
36 currently in the document. On the panels on the right, it shows  
37 the data, and these are landings data that are used to inform  
38 the various options, and so you can look at those and inspect  
39 them, and you can turn them off or turn them on. It's an  
40 interactive web plot kind of a thing.

41  
42 Then the tables on the left show the result of the allocation  
43 for each state based on the options, and so you can click  
44 through the different time series, and you can see the plots and  
45 the data and everything, and it provides a different way that  
46 you can kind of look through and see what you get.

47  
48 The idea was that this was available, and it would work for

1 everybody, and it was supposed to be simple, and so I won't  
2 spend too much time telling you how to use a website, but the  
3 idea is, for Alternative 3, and, again, these mirror what's in  
4 the document. The Alternative 4 here is a little bit different,  
5 but, again, you can select the years that you would start,  
6 either the 1986, 1996, or 2006, that is reflected in the  
7 Alternatives 2 and 3, and then the little box down here for  
8 those various years.

9  
10 There are some scenarios that maybe aren't so likely. For  
11 example, if you were to select Option c that began in 2006 and  
12 then turn off all the excluded years, you would be left with not  
13 much, and so some of these may not be particularly useful  
14 options, but this is what the council has asked to see.

15  
16 Alternative 5, I just wanted to get -- It's a little bit  
17 different, and Ava described it earlier, but the other  
18 alternatives are based on predefined set of years, for example  
19 1986 through 2015, and Alternative 5 is different, in that it  
20 selects -- Each state could select, would select, the years of  
21 the ten highest landings in each of their states, but the  
22 understanding is that the actual year that that occurred would  
23 not be the same in each state, and so everybody would get their  
24 ten best.

25  
26 I was a little bit curious, on my curiosity, on, well, did it  
27 matter if it was nine or eleven, or what is something magic  
28 about that ten years, and it turns out not very much. This  
29 slide right, right up here at the top, you can explore different  
30 numbers of years, and you can select the minimum and maximum  
31 range with this bottom slider. On the panels, I should point  
32 out, for each of these, the private rec are on the top and the  
33 for-hire are on the bottom.

34  
35 If you look on the charts, the ones that actually have little  
36 circular shape markers, for each of the alternatives, those  
37 would be the years that would actually be included in the  
38 calculation, and so the potential years are the 1986 through  
39 2015, and what is selected on the status quo, if you look at the  
40 charts, you can see what years that would actually work out to  
41 be.

42  
43 **CHAIRMAN CAPLINGER:** John, can I ask you a quick question? Are  
44 you saying that -- I was under the impression that there was  
45 going to be an ACL across the Gulf and that each state -- You're  
46 saying each state is going to be assigned some type of  
47 percentage of that ACL?

48

1 **DR. FROESCHKE:** Yes.  
2  
3 **CHAIRMAN CAPLINGER:** Each state is going to be able to select  
4 which years they want to, to obviously get the best ACL  
5 possible?  
6  
7 **DR. FROESCHKE:** That's how this alternative would work.  
8 However, you would -- You would still base it on a percentage  
9 basis, and so --  
10  
11 **DR. DIAGNE:** I think this would be, I guess, similar to what was  
12 done, I believe, in one of the IFQ programs, by which  
13 individuals were allowed to select their best set of years, if  
14 you would. Obviously, if everyone did that, by the time you sum  
15 it up, it will be way more than 100 percent, but then you use  
16 those relative proportions to calibrate back to 100 percent, if  
17 you would, if that's what you were asking.  
18  
19 **CHAIRMAN CAPLINGER:** Yes.  
20  
21 **DR. FROESCHKE:** Ava mentioned Alternative 6, which is kind of  
22 what I started with, and that's a little more complicated, in  
23 terms of the options. Before I kind of walk you through this,  
24 this panel on the right was the question that Marcus asked  
25 about.  
26  
27 This area here reflects the distribution of biomass. This was  
28 based on a paper from Mandy Karnauskas and her colleagues at the  
29 Southeast Fisheries Science Center, and it came out last year.  
30 The reference is down below that, and that paper is freely  
31 available on the internet. If you're interested, you can go to  
32 it and download it and have a look. It's a very interesting  
33 paper.  
34  
35 This was used, as Roy described, and, if you zoom in, you can  
36 kind of see that each of those boxes is sort of color-coded, and  
37 each has a numerical value, and then these green lines are the  
38 state boundaries that Ava mentioned, and so you can sum the  
39 values of each box within the state polygon.  
40  
41 If you compute those all up, you will see, in this table on the  
42 left, this biomass column, which works out to be 29.9 for  
43 Florida, 6.3 for Alabama, 1, et cetera, on down. That is where  
44 those values come from.  
45  
46 What the council is considering is, in addition to just basing  
47 the allocation on landings, for example Alternatives 2 through  
48 5, this one, what they have currently considered is biomass or

1 trips as two metrics that you could weight. We have put in  
2 landings, just for their consideration, as something that they  
3 have done in the past.

4  
5 The way this is set up, it can be explored by either the  
6 recreational sector as a whole, or you can do it by either the  
7 private or the for-hire. Just like the Alternatives 2 and 3,  
8 you could select your time series that you were interested in,  
9 and these would calculate the weighted percentages of both the  
10 trips and the landings. The biomass, we only have a single  
11 estimate in time, and so that's not a dynamic variable at this  
12 point.

13  
14 At the bottom here, what this does, in this orange box, it  
15 calculates an allocation for each state based on the values that  
16 are in the table, and then these green boxes are a relative  
17 weighting for each of the variables, and so, for example, if you  
18 were to make the biomass 100 and the trips zero and the landings  
19 zero, your allocation would just be an exact mirror of the  
20 biomass, because all the weighting of the variable would be to  
21 that one.

22  
23 You can explore any combination of these trips or landings or  
24 biomass and recalculate them, and, so long as they all add up to  
25 100, you're in a reasonable space. The council currently has  
26 three options, which I have sort of just provided as hot links  
27 in these buttons up here, and so 25 percent biomass and 75  
28 percent. Currently, they don't have landings as part of their  
29 decision criteria, but we have included it, in case they do.  
30 Then the 50 percent, 50/50, and then the 75 percent biomass and  
31 25 percent trips.

32  
33 Again, I wasn't really getting too tangled up in the actual  
34 numbers, but this is a formula or a process, and we were trying  
35 to make something that was interactive by council members and  
36 stakeholders and everybody that has a vested interest.

37  
38 A couple more things, and then I will move on. If you were to,  
39 for example, find something that you're interested in sharing,  
40 you can always just click it and grab a very long URL, and you  
41 could email it to someone or save it or something and reopen it  
42 later.

43  
44 The last thing on the page load is there is sort of a fine-print  
45 box, but, down there at the bottom, there is a link to submit  
46 public comments. All of our ongoing actions, we always accept  
47 public comments through our website, in-person or otherwise, and  
48 so, if you have something to tell us, you're more than welcome

1 to go there or any of your friends or colleagues or neighbors or  
2 whatever.

3  
4 **CHAIRMAN CAPLINGER:** Excuse me, John. Before you go on, is  
5 there somebody that could send us the link for that tool,  
6 because I've been searching since you started, and I still can't  
7 find it.

8  
9 **DR. FROESCHKE:** Yes.

10  
11 **DR. LASSETER:** It's on the very last page of the presentation  
12 that I am in.

13  
14 **CHAIRMAN CAPLINGER:** John, if you think you know where the  
15 biomass is, to make this easy for the council, why wouldn't you  
16 say the biomass is here and this is where we're going to set the  
17 ACLs, because of that biomass? Otherwise, this is going to be  
18 a catfight for the Gulf Council.

19  
20 I mean, every state is going to be fighting, and nothing is  
21 going to get done. I mean, are you worried about that? It just  
22 seems like we've given them so many alternatives, and there is  
23 so much politics involved, that this is going to be an absolute  
24 bloodbath, and nothing is going to get done.

25  
26 **DR. FROESCHKE:** Just to be clear, it actually kind of works in  
27 the reverse. The council tells us what they want to see, and  
28 then we provide it. It isn't the other way. We have a long  
29 history of struggling to -- The council has a long history of  
30 struggling with this.

31  
32 They were interested, and there was new scientific information  
33 available, and they were interested in trying to see if it was  
34 worth incorporating that into the decision process. I do think  
35 it's sort of interesting, in the table there, that it does show  
36 the disparity in the distribution of the biomass and the  
37 distribution of the landings. It just further reflects that the  
38 biomass tends to be in the western Gulf and the landings are  
39 more heavily weighted to the eastern Gulf.

40  
41 **CHAIRMAN CAPLINGER:** But you could actually encourage states to  
42 grow their biomass, through artificial reef programs and  
43 whatever kind of enhancements they can do, and so you could  
44 motivate states to create habitat, essentially.

45  
46 **DR. FROESCHKE:** You could if biomass was the main objective of  
47 the recreational fishery, but, in fact, it doesn't seem to be,  
48 because the artificial reefs drive up the catch rates and

1 shorten the seasons, and so it's -- You've got to really narrow  
2 in what is it that you want. If the charge is more access, it's  
3 not clear, from the data, that more artificial reefs get you  
4 more access, but it does get you a higher catch rate.

5  
6 **CHAIRMAN CAPLINGER:** You would think that it creates more  
7 habitat, and so it would create more biomass, but I know that  
8 gets into the whole argument of aggregation and creation, which  
9 we can't discuss today.

10  
11 **DR. FROESCHKE:** Well, we can, but it's just that the catch rate  
12 is so much higher on the artificial reefs that artificial reefs  
13 tend to increase the removals more than they increase the  
14 biomass.

15  
16 In this paper, and it's actually worth looking at, but they  
17 actually calculated the biomass both ways and looked at just the  
18 effects of the biomass and things, and it's not my paper, and so  
19 I wouldn't feel too comfortable in explaining the finer details,  
20 but it is in there, and they do acknowledge the contribution of  
21 artificial reefs and biomass. It's minor, but it certainly does  
22 make a difference.

23  
24 **DR. CRABTREE:** Charlie, in the last part of Shannon's  
25 presentation, it partially addresses this issue, because I think  
26 the artificial reef issue is front-and-center to the whole  
27 problem with red snapper.

28  
29 **MR. KENNEDY:** Remember John earlier said that Bob Shipp had a  
30 unique perspective on this, and it wasn't unique, but it's just  
31 different from theirs.

32  
33 **DR. CRABTREE:** Well, I don't know that that's true. I mean, I  
34 don't dispute that artificial reefs may increase productivity.  
35 That may well be the case, and that's Bob's argument.

36  
37 **MR. KENNEDY:** Just the argument is over the net result, because  
38 the net result, we think, is positive.

39  
40 **DR. CRABTREE:** That's partly what I think that Shannon is going  
41 to address a little bit, and I think we need to talk about that.

42  
43 **DR. FROESCHKE:** One quick point about that, and then I will  
44 leave, but one thing I found very interesting in putting this  
45 together is, if you look at this table, for example, you will  
46 see, in this column for Alabama, where they only have 6 percent  
47 of the biomass, but they have 31 percent of the landings, which  
48 means that the catch rate must be higher or they're fishing

1 somewhere else, but it is interesting, and I would sort of  
2 attribute that to the artificial reef effect, and you could see  
3 why an observation there, or at least it seems to me, could be  
4 different than an observation somewhere else.

5  
6 **CHAIRMAN CAPLINGER:** If they were doing that year-in-and-year-  
7 out, you would clearly think that they have more biomass than is  
8 being modeled or that the habitat, the artificial reefs or  
9 whatever they have there, is enhancing the population in some  
10 way. How can you catch more than the biomass can support, year  
11 after year after year?

12  
13 **DR. FROESCHKE:** Yes, that was the question, and so either  
14 they're catching it somewhere else or -- It's not something that  
15 you can declaratively answer with the data, but it is an  
16 interesting observation.

17  
18 **MR. BLANKENSHIP:** I'm from Alabama, and I have fished the same  
19 reefs, artificial reefs, for twenty years, and I don't ever go  
20 more than about eleven or twelve miles offshore, and I have  
21 never fished one of them out, in twenty years of fishing.

22  
23 **MR. MARQUEZ:** I couldn't help but comment on this Option 6,  
24 because it seems bizarre to me that there would be a reward for  
25 fishing pressure. I mean, you've got the biomass in here, and  
26 you're saying here's what the result is, but we're going to look  
27 at rewarding additional quota because you're in states that have  
28 close proximity to the fishery and can run two-a-days.

29  
30 The charter industry over there runs a trip in the morning and  
31 runs a trip in the afternoon, whereas, Mississippi and Louisiana  
32 and Texas, I think you have a longer distance to get there. It  
33 just doesn't make sense to me if we're identifying the stronger  
34 biomass in the western part of the Gulf. As I read this model,  
35 it is set up where you can show increased fishing pressure.  
36 Therefore, you get more increased trips, and you're going to get  
37 more quota.

38  
39 **DR. FROESCHKE:** That is definitely the input that we're looking  
40 for from the AP, is how you feel like this would best serve your  
41 needs, and so we're not here to tell you what to do. We're  
42 asking for your help, and so this is just the information that  
43 we've been asked to provide.

44  
45 **CHAIRMAN CAPLINGER:** Thank you. We have a question in the back.

46  
47 **DR. CARRIE SIMMONS:** Thank you, Mr. Chairman. I'm Carrie  
48 Simmons, Gulf Council staff. I just wanted to mention that I

1 believe this paper is really based on 2011 information, as far  
2 as the artificial reefs and the natural habitat out there and  
3 the increased sampling that was done at that time, due to the  
4 congressional funding as far as the surveys. John, is that  
5 correct?

6  
7 I think that was one of the items that was discussed when the  
8 SSC reviewed this, and the fact that habitat has probably  
9 changed out there, and the biomass has probably changed out  
10 there, but then they did some various, I guess, analyses, and,  
11 again, we can get into this more at the council meeting, but to  
12 try to, I guess, incorporate that into these estimates, but,  
13 again, I believe it's mainly based on the 2011 information.

14  
15 **DR. FROESCHKE:** I will take a go at that. A couple of things.  
16 Yes, it is based primarily on 2011 information. Two points.  
17 One, it's important to understand that the color scale, or the  
18 response variable, if you will, is a relative index of  
19 abundance, or biomass, and it's not an absolute.

20  
21 That means that, if the biomass of the stock changed, but it  
22 changed the same everywhere, that wouldn't really -- We could  
23 make that adjustment, and we do those kinds of stuff with MRIP  
24 and fisheries all the time.

25  
26 The second point is the headboat information on here, I believe,  
27 was from 2007, and it was calibrated in just the way I  
28 described, and so it would be possible, with some assumptions,  
29 to update it based on the current changes in SPR between 2011  
30 and 2017 or something, although I don't think that would change  
31 the outcome for the kinds of things that we were considering  
32 here.

33  
34 **CHAIRMAN CAPLINGER:** To this group, to the AP, do you want to  
35 point to one of these alternatives, or suggest one of these  
36 alternatives, folks, as a recommendation to the council, or do  
37 we just want to say this is the direction that we want to go in?  
38 We need some feedback on how we want to handle these  
39 alternatives.

40  
41 **MS. RALSTON:** Rather than getting down in the weeds about this,  
42 because this is really all going to change, has the council  
43 actually looked at this yet and had this as part of their  
44 discussion?

45  
46 **DR. FROESCHKE:** Not yet. You guys are the first ones.

47  
48 **MS. RALSTON:** I would like to see the states try to work out a

1 solution between themselves. Personally, I am supportive of  
2 exploring state management, but, as far as making a specific  
3 recommendation, I think there's a lot of other factors that are  
4 going to come into play before we can come up with a solution.

5  
6 **CHAIRMAN CAPLINGER:** Okay. Good. Perfect. Thank you.

7  
8 **MR. BROWN:** What I was going to say is -- I totally agree with  
9 Kellie, but I was going to say that I kind of almost feel like  
10 we're in a situation of a divide-and-conquer, that we've had the  
11 for-hire sector peeled out, and now they're somewhat, a little  
12 bit, more satisfied, and so now we're going to try and peel out  
13 a few states and make them a little bit more satisfied, and that  
14 still doesn't answer the overriding questions on the amount of  
15 quota being distributed and who it's being distributed to, and  
16 so I agree with Kellie, because of that.

17  
18 **CHAIRMAN CAPLINGER:** The whole question about dividing the  
19 recreational anglers further bothers me, I can assure you, and  
20 so I concur with you.

21  
22 **DR. FROESCHKE:** Do you have some general recommendations of  
23 things not to do or to do more of? Do you feel that the  
24 landings-based kind of approaches might be better, if they were  
25 to go to this, or more of the Alternative 6 style or something  
26 else?

27  
28 **CHAIRMAN CAPLINGER:** John, hasn't the ACL increased over the  
29 past several years as the biomass has increased?

30  
31 **DR. FROESCHKE:** It has, but the recreational season has  
32 decreased, because the changes in catch rate have eclipsed the  
33 increases in biomass.

34  
35 **CHAIRMAN CAPLINGER:** So has the ACL increased recently? Has it  
36 been on an upswing?

37  
38 **DR. FROESCHKE:** Yes.

39  
40 **CHAIRMAN CAPLINGER:** Wouldn't we naturally prefer to have the  
41 more recent years, say 2014 or 2015, be considered as our ACL?

42  
43 **DR. FROESCHKE:** It's not to consider the ACL, but it's to  
44 consider -- If you think about whatever the pie is, in  
45 percentage basis, how would that be divided among the five  
46 states, and the idea is that it's a formula. If that percentage  
47 basis would stay the same, but it would -- If the total ACL went  
48 up, then, obviously, in terms of pounds, every state would get

1 more fish.

2  
3 We're just trying to understand, from your perspective, one, if  
4 state management is something that you guys feel is of interest  
5 or is not of interest, or somewhere in between, and, if so, do  
6 you have some specific directions that you feel like you would  
7 like to explore one alternative more than another or if  
8 something is more or less appropriate than another one.

9  
10 **MR. KENNEDY:** It's absolutely we're interested in, because we've  
11 go down to the mess we're in now without it, and so surely it  
12 won't be any worse.

13  
14 **CHAIRMAN CAPLINGER:** I would say just, in my opinion -- I think,  
15 in general, what I've heard is that we are in favor of state  
16 management, and we do want to pursue that. As far as the  
17 technical alternatives, I am not a biologist, and, like Kellie  
18 said, I would hope that the gurus in each state could come  
19 together and decide which they would prefer to manage this by,  
20 but, in general, I think the states have the boots on the  
21 ground, and I think they're developing the programs, and they  
22 have the scientists and the enforcement agents out there.

23  
24 I think we as recreational anglers have better input with our  
25 own state managers, as well as legislators, and so I am  
26 certainly in favor of going the route of state management. Now,  
27 how do we best do that? I don't have a good idea for you right  
28 now. I would love to play with this model.

29  
30 **MR. LANDGRAF:** Charlie, pardon me if I'm a little off base here,  
31 but the ultimate goal is for each state to get certified by  
32 NOAA, like Louisiana is, in their assessment program?

33  
34 **DR. FROESCHKE:** Perhaps, but that doesn't change -- That would  
35 affect the ability to monitor their catch, regardless of whether  
36 it was a state-managed program or a federal program.

37  
38 **MR. LANDGRAF:** Wouldn't you want to get there first, before you  
39 would -- It's the chicken-and-egg thing.

40  
41 **DR. FROESCHKE:** I don't see one being required to do that. I  
42 mean, if landings occur in their state, we have estimated those  
43 landings, and MRIP will continue to do that if there's not a  
44 certified state program that supersedes that.

45  
46 One thing is -- Many of you are sort of new to the council, and  
47 we, as staff, want to provide your feedback to the council as  
48 clearly and accurately as possible. The easiest way for us to

1 do that, when you have a recommendation, is to make a motion.

2  
3 **CHAIRMAN CAPLINGER:** I've got you. Just to throw this out to  
4 the group, I would think that we would want it managed to where  
5 the fish are. If the fish are not in an area, and we're saying  
6 go ahead and keep fishing, then that doesn't help the situation  
7 in that specific area, in my simplistic view of it.

8  
9 If the biomass is off of Texas, and they can handle more  
10 pressure, then certainly that would be my preferred way to  
11 manage, and I don't know how the landings skew things from 1986  
12 to 2009 or 2015, and so I can't comment on that, but I would  
13 imagine that states are going to go after the one that's best  
14 for them, unfortunately, and that's why I think this is going to  
15 be difficult.

16  
17 You as a scientist, I would think, would say the fish are here  
18 and this can take more pressure and fish there. The fish are  
19 not here, and, if we continue this type of pressure, we're never  
20 going to rebuild this area or whatever. That would be my gut.

21  
22 **DR. FROESCHKE:** Yes, I think that's a reasonable --

23  
24 **MR. BROWN:** I am trying to think of maybe a motion to support  
25 state management of red snapper, but leave it up to the states  
26 to decide and agree on what that management entails and stop  
27 there.

28  
29 **MS. RALSTON:** The only thing I would add to it, and, John and  
30 Ava, you all may have touched on this and I missed it earlier,  
31 but I know there was a pretty extensive discussion about  
32 flexibility in state management and kind of the tools in the  
33 toolbox that the states can use to get there, and so the only  
34 thing that I would add to Jim's motion is maybe to allow the  
35 states or that the states would select those options that would  
36 provide them with the most management flexibility under this  
37 program.

38  
39 **DR. LASSETER:** While they're getting this up, I will just  
40 comment on that. The actions in the individual state  
41 amendments, and we'll get to that next, that's where we're going  
42 to discuss delegation, and so we'll touch on that a little bit  
43 more, but that would be great, if you want to add that clause  
44 onto this motion.

45  
46 **MR. BROWN:** That would be a friendly amendment.

47  
48 **MR. LANDGRAF:** Do we feel that the council and NOAA is working

1 with the states enough to advance them towards certifying the  
2 program in each state? Is there a gap there that we need to  
3 close, maybe through a motion or a suggestion, that more -- I  
4 hate to use word "effort", be provided to those states to get  
5 their programs certified in an expeditious manner?  
6

7 **MR. KENNEDY:** There is a state marine resources rep from every  
8 state on the council.  
9

10 **MR. LANDGRAF:** So maybe that's moot then.  
11

12 **MS. RALSTON:** I think the states, and Roy can correct me, but it  
13 takes about three years for that certification program. I know  
14 Florida and Alabama started in 2015, and so we're coming up on  
15 that three-year timeframe for them, and Louisiana started in  
16 2014, and that's why theirs is already done, and so I think  
17 we're getting close on those that are working on it.  
18

19 **DR. CRABTREE:** Right now, Alabama and Mississippi are fairly  
20 close, and they could well be certified by the middle of this  
21 year. There are some issues with Snapper Check and how the  
22 expansion factor works to account for non-reporting that need to  
23 be resolved.  
24

25 Florida is not -- My understanding with Florida is they are not  
26 prepared, at this time, to go very far in certification.  
27 They're still working on some of the details of their own  
28 program, but the Fisheries Service has, in part, funded these  
29 programs, and I think our interest is to see them certified as  
30 quickly as we can, but we need to make sure that the programs  
31 are statistically sound, and so I think all of that is  
32 happening. I wish it would go faster too, but it just takes  
33 time to work through all that.  
34

35 **MR. LANDGRAF:** My comment was more around -- Pardon me if I  
36 don't know the differences in each state, but making sure those  
37 states have all the tools that they need, from a federal level,  
38 to understand the requirements that need to happen for them to  
39 be certified.  
40

41 **DR. CRABTREE:** Yes, and I think that they do understand that,  
42 and that's all being worked through, but it's just working  
43 through the time it takes to deal with the issues, because  
44 they're complicated.  
45

46 **DR. LASSETER:** I just wanted to check. Mr. Brown, is this the  
47 correct motion?  
48

1 **MS. RALSTON:** If we can add the part about encouraging maximum  
2 flexibility in that management system, and I don't know how to  
3 word it exactly.

4

5 **MR. BROWN:** That's good.

6

7 **MR. MARK LUITJEN:** Should this motion limit itself to  
8 recreational and to not include headboats and charter boats or  
9 just recreational, which includes headboats and charter boats,  
10 or all red snapper, because what it says right now is all red  
11 snapper.

12

13 **AP MEMBER:** I think the charge is only for recreational.

14

15 **MR. LUITJEN:** It needs to say that then.

16

17 **AP MEMBER:** That would include for-hire though, wouldn't it?

18

19 **DR. LASSETER:** If I could speak, that would be a very  
20 constructive recommendation that we could present to the  
21 council, whether or not you support state management being for  
22 private angling only or if you do support it being for both  
23 components. Just to refresh, the council does have a preferred  
24 alternative right now, and that is to allow the states to decide  
25 whether to manage private angling only or to manage both.

26

27 **AP MEMBER:** Both meaning commercial and recreational?

28

29 **DR. LASSETER:** I'm sorry, but we're only talking recreational  
30 here.

31

32 **AP MEMBER:** That's correct.

33

34 **DR. LASSETER:** Within the recreational sector, you have two  
35 components, and that first action that I went over in the  
36 program document addressed which of those components the states  
37 would manage under state management. There was an alternative  
38 for private angling only, there was an alternative for both, and  
39 there was an alternative, which is the council's preferred, to  
40 let each state decide whether it will manage private angling  
41 only or to manage both.

42

43 I will note there, if it's not the obvious, that there is no  
44 alternative to say that the states manage for-hire only, and  
45 that's really a history of state management, and, also, the  
46 council has two other amendments going forward right now that  
47 address separate management for charter and headboats, and so  
48 that does not seem like a reasonable alternative within this

1 document at this time.

2  
3 **MR. BROWN:** For my motion, it would be for all recreational.

4  
5 **MR. KENNEDY:** Who has the authority to relieve the restrictions  
6 on federally-permitted charter boats that they can only fish in  
7 the federal waters for snapper?

8  
9 **DR. CRABTREE:** That would require a plan amendment by the  
10 council. They requested that a couple of years ago, and it was  
11 disapproved by the Fisheries Service, because, if we had done  
12 that, it was going to lead to even bigger overruns in the quota,  
13 and we had just lost a court case about that, but, if you turn  
14 the charter boats loose and let them fish in the state-water  
15 extended seasons, it will result in much shorter seasons  
16 overall, and so you can recommend that, but then you're  
17 recommending something that is likely to shorten the season.

18  
19 **MR. KENNEDY:** But if they're combined under state management,  
20 the states would have to have two different plans, and one of  
21 the plans would be only for federal waters.

22  
23 **DR. CRABTREE:** If you did it with state water -- If there wasn't  
24 a disparity between the federal season and the state season,  
25 that requirement is meaningless and doesn't do anything, and so,  
26 if we go to this state management, the state would manage all  
27 landings in that state, and so you wouldn't have the discrepancy  
28 between state-water seasons and federal seasons, and so it would  
29 become moot at that point.

30  
31 **MR. KENNEDY:** So the rule would still be there, but it just  
32 wouldn't be --

33  
34 **DR. CRABTREE:** It would be there, because it applies across all  
35 sorts of species, but there wouldn't be any discrepancy anymore  
36 with red snapper. Now, including the charter boats has been  
37 very controversial, and there are a lot of charter boats that  
38 don't want to be included in state-water management, and that's  
39 been one of the tough things. I think, Doug, we've made four or  
40 five motions about who to include, and every one of them has  
41 always failed.

42  
43 **MR. BOYD:** Yes, and the issue, I think, is that, as I read it,  
44 and from public testimony, that the charter boat operators from  
45 around the states are about 50/50 on having the states manage  
46 them. Louisiana, if I remember correctly, their charter boat  
47 organization wants state management, and Alabama's does not.  
48 There is a contingent in Florida that does not and a contingent

1 in Texas that does not, but it appears that the numbers are  
2 50/50.

3  
4 I would like to say one other thing. We have said, a few  
5 minutes ago, that the preferred alternative -- We mentioned that  
6 the preferred alternative of the council is. Preferred  
7 alternatives can change at any time, based on a council member's  
8 motion and a vote by the council, and so, whatever you see in  
9 any document that shows as the preferred, that can be changed at  
10 any moment in a council meeting and voted on, and so don't hang  
11 up on something is a preferred and that's the way it's going to  
12 be at this moment, because that could change.

13  
14 **DR. LASSETER:** If I could add to that, thank you very much, Mr.  
15 Boyd, for bringing that up. I probably didn't explain enough of  
16 that clearly. For each one of these actions, there are numerous  
17 alternatives. I noted that the Alternative 1 is always your no  
18 action, and that's for staff to analyze all the other  
19 alternatives against, but this is a range, a reasonable range,  
20 of alternatives for the council to decide.

21  
22 If it is appropriate, if you think that there is something that  
23 you could make a recommendation on, either in support or  
24 possibly to ask the council to consider a different alternative,  
25 that would be a very constructive, concise recommendation that  
26 we could take to the council, and I will always note if they  
27 have a preferred in there, and that it can be changed, and the  
28 council very often does select a preferred and get public  
29 testimony on an issue and then reconsider and even change their  
30 preferred alternative.

31  
32 **CHAIRMAN CAPLINGER:** Do we want to vote on this motion? Is  
33 there a second?

34  
35 **MR. BLANKENSHIP:** No, I don't. I think -- I promised myself  
36 that I wasn't going to talk much during this meeting, but I  
37 can't help it. If you allow one state to have one way of doing  
38 things with charter boats and headboats and another state the  
39 flexibility, the way this is written, quite frankly, it means  
40 nothing will get accomplished, because every state then is --  
41 We're telling them nothing.

42  
43 We're saying, hey, we hope that you can work it out, but I think  
44 we should be recommending that all the states do it the same  
45 way, so that it encourages all of them to come to an agreement.  
46 If you leave the wording of this the way it is, we're saying,  
47 you know, Louisiana, we kind of like what you're doing, and  
48 that's okay and do what you want. Alabama, we don't agree with

1 you, but do what you want.

2  
3 We're not going to get anything accomplished this way. I think  
4 there needs to be a certain level of continuity across all five  
5 states and that we recommend to them that they all do the same  
6 thing, because, otherwise, they're never going to agree, because  
7 everybody is going to have a different way of looking at it. If  
8 we, as a panel, are making a recommendation, I think that it  
9 should be that it be all the same.

10  
11 **MR. BROWN:** The only problem I have with that is that, if you're  
12 allowing them -- If you're allowing each state to have the  
13 flexibility, Texas could say we want June and July to be open,  
14 and Alabama could say that our best time is spring break and we  
15 want whatever time is available, and so it gives the states --  
16 It allows the states the opportunity to manage this fishery  
17 according to how they see it on the ground, and that's my only  
18 problem with trying to make a cookie-cutter across-the-board.  
19 Otherwise, we have that right now.

20  
21 **MR. BLANKENSHIP:** No, what we have is somebody telling us that  
22 it's going to be more than what it would be otherwise, which was  
23 zero, and we're not getting any guidance in that respect, but if  
24 we -- Look, every state, they all have the same seasons, the  
25 best times.

26  
27 They're all the same along the Gulf Coast, and so I don't see  
28 that it's -- If there is a continuity, if all of them -- They  
29 know that we don't have any power over what they do anyway, but,  
30 if we tell them that we all agree, and we should all be in the  
31 same boat here. We should all be in the same -- As far as the  
32 flexibility is concerned, what we're inviting each state to do  
33 is say, well, pay no attention to us, because we can't agree  
34 either.

35  
36 **MR. BROWN:** I thought that the purpose of this motion really was  
37 for us to get behind supporting state management for  
38 recreational snapper, and the question was is that just private  
39 recreational anglers or private and charter boat, and that's  
40 what we were trying to get at. It was to say we want you to  
41 look at the whole what used to be the recreational fishery, both  
42 private recreational and charter/for-hire, but this group really  
43 can't get out in front on how we're going to slice that pie.  
44 That's what the states have to get together on.

45  
46 Once they have decided how they're going to divide that up,  
47 that's what state management is all going to be about. They are  
48 going to manage the private recreational and charter/for-hire in

1 whatever way works best for them, and I don't necessarily agree  
2 that it's the same in every state. I mean, I know, depending on  
3 other fisheries, and amberjack is a good example. In Florida,  
4 they may have amberjack closer in, and they may want to -- If  
5 amberjack is open and available, they may want to do their red  
6 snapper a different time.

7  
8 Other states may want to do it a little bit differently, but, to  
9 me, what's important is that we manage that entire recreational  
10 sector together, if the states can ever agree on how we're going  
11 to divide it up amongst the states, but I don't think this panel  
12 can come up with that agreement.

13  
14 **DR. LASSETER:** I just wanted to -- In order to facilitate staff  
15 being able to present your recommendations to the council, I am  
16 hearing three different discussions going on, and it might  
17 warrant three separate motions, and that might be an easy way to  
18 tease them apart.

19  
20 I understood this motion as starting through -- You did not  
21 want, as a body, want to dictate to the states how to divide the  
22 quota up, and so it seemed to be a message of support that they  
23 would do for the allocation decision, and then there's another  
24 component of it of which components to put under state  
25 management, and so you may want to tease those two separately.

26  
27 Then there is the issue of different regulations across the  
28 Gulf, and I'm kind of hearing that level of flexibility as well,  
29 and so we may want to tackle these individually as motions that  
30 could each be a concise statement.

31  
32 **MR. BLANKENSHIP:** All I'm saying is the motion should be to  
33 support state management of all recreational red snapper,  
34 period, that's it. All that other surplus is not necessary for  
35 this motion.

36  
37 **MR. BROWN:** I agree with that.

38  
39 **DR. FROESCHKE:** So a substitute motion, I guess, would be the --

40  
41 **CHAIRMAN CAPLINGER:** Okay. Can we live with that? Do we have a  
42 second? Okay. We will write this as to support state  
43 management of all recreational red snapper, period. Do we have  
44 a second? Rudy seconds. **All of favor of this substitute**  
45 **motion; any opposition. The motion passes.**

46  
47 **MR. LANDGRAF:** Charlie, wasn't there another recommendation that  
48 we talked about before lunch also that we need to -- Is that

1 something that we need to try to --

2  
3 **CHAIRMAN CAPLINGER:** We talked about allocation review, and I  
4 have that in my notes, so that we can -- Hopefully, at the end  
5 of this, we can go back to that.

6  
7 **DR. FROESCHKE:** Did you have any further guidance on the state  
8 management? Ava has got more, I forgot.

9  
10 **PRESENTATION: SUMMARY OF RED SNAPPER AMENDMENTS CONSIDERING**  
11 **STATE MANAGEMENT FOR THE RECREATIONAL RED SNAPPER COMPONENT**  
12 **(CONTINUED)**  
13

14 **DR. LASSETER:** We have five more amendments to go through. I  
15 think we are done with the decision tool, and so we're going to  
16 bring back up the PowerPoint that I was going through for state  
17 management, and, as that's coming up, I will note, again, that  
18 the very last slide on that says "Questions", and there is your  
19 link to that decision tool that Dr. Froeschke put together.

20  
21 That was the second action in the program amendment, and so,  
22 again, as a recap, we had the first action of which components  
23 will be under state management, and the second action is how to  
24 divide that recreational ACL up amongst the states.

25  
26 Then we have individual state amendments. The individual state  
27 amendments, we actually have five amendments, and they are  
28 identical except for the name of the state is different for each  
29 one of them, and one other difference is that, the Louisiana  
30 document, the council has selected preferred alternatives for  
31 Louisiana. The other four state documents do not have  
32 preferreds at the moment.

33  
34 Again, in these five amendments, there are two actions, and the  
35 first action that we have up here on the board addresses the  
36 authority structure for state management. It's basically how do  
37 you give control, authority, to the states, and there is two  
38 main methods for doing so. One is delegation and one is called  
39 conservation equivalency.

40  
41 On this first slide here, we have the delegation alternatives.  
42 Of course, we always start with Alternative 1, which is our no  
43 action, for analytical purposes, and then we have two  
44 alternatives, 2 and 3, for delegation.

45  
46 Alternative 2 would be to establish a management program, and  
47 remember this is within an individual state's amendment, and so,  
48 when it says, "establish a management program", we're within one

1 state's amendment, and so this is specific to that state.  
2 Establish a management program that delegates some management  
3 authority in federal waters to a state, and, in each amendment,  
4 it doesn't say "to a state". It says the respective name of  
5 that state, which must establish the red snapper season  
6 structure and bag limit. They must formally establish those for  
7 the harvest of its assigned portion of the recreational sector  
8 ACL. It's noted there that Louisiana's document does have this  
9 selected as their preferred.

10  
11 Alternative 3 was added more recently, and we're still exploring  
12 this alternative, and so Alternative 3 would establish a  
13 management program that delegates management authority in  
14 federal waters to a state. When this motion was made to add  
15 this, Florida actually made the motion, and they termed it "full  
16 delegation", but what we need to understand is the scope of  
17 authority, what is the scope of authority to include in the  
18 delegation of that state, and so a couple of things here.

19  
20 First of all, delegation is a provision in the Magnuson-Stevens  
21 Act, and the full text of that provision, and it's less than a  
22 page, is one of the appendices of the full document that is  
23 provided in your briefing materials, if you would like to look  
24 at that.

25  
26 Basically, it provides NMFS the authority to delegate to a state  
27 to let a state manage vessels registered in that state while in  
28 federal waters, and so it's not putting federal rules onto the  
29 states. It's turning the authority over to the states to manage  
30 its vessels in the federal waters.

31  
32 Now, one important note of this provision, and it's specified in  
33 Magnuson, is, unlike other decisions that the council makes,  
34 which can be passed by a simple majority, approving delegation  
35 requires a three-quarter majority vote of the voting council  
36 members, and so your Coast Guard representative and State  
37 Department representative are not included. You have seventeen  
38 voting members on the Gulf Council, and so it does require --  
39 It's a higher vote, a higher bar, for passing delegation.

40  
41 I am going to say a little bit more about Alternative 3. When  
42 this motion was put forward for the expanded full delegation,  
43 staff, as well as NMFS staff, needs to understand what this  
44 means, and so there are regulations on the books that are  
45 specific to red snapper that include red snapper, affect red  
46 snapper, but are applied more generally to reef fish, and  
47 there's thirty-one species in the Reef Fish FMP, and there are  
48 regulations in the Federal Register, on the books, that apply to

1 just fishing in general.

2  
3 Then there are some things that a state may want to do for  
4 management for which a regulation does not currently exist. Why  
5 we need to know what a state would want to do, as far as this  
6 expanded delegation, is, if it's something that there are  
7 regulations that currently are in place for, NMFS would need to  
8 know that, in order to modify those regulations.

9  
10 There are some regulations that, because of other requirements,  
11 other applicable law, statutes in Magnuson, the National  
12 Standards, that they could not delegate, and one of those would  
13 be setting the ACL. Some of the other things that perhaps a  
14 state might want to do for which regulations do not currently  
15 exist would just require a conservation with NMFS and then  
16 possibly additional analyses, and possibly it would be something  
17 that could be done or could not be done.

18  
19 At the last council meeting, the council moved to send a letter  
20 to each of the five states asking what is it that you would want  
21 delegated to you, and so we will be presenting those responses  
22 to the council at the meeting in a couple of weeks, and so  
23 that's why this Alternative 3 is still under development, if you  
24 will. We're still working on identifying and defining what this  
25 more expansive delegation would be.

26  
27 Now, that said, under Alternative 2 delegation, although it  
28 specifies that a state must establish its season and bag limit,  
29 they must do those two things, because, under delegation, that  
30 state with an approved plan would be exempted from those federal  
31 regulations, and we know those two things the states would be  
32 able to designate on their own, but there could be additional  
33 things, even under Alternative 2 delegation, that a state could  
34 do without requiring regulations to be changed.

35  
36 There's an example in the document for Florida. Say Florida  
37 wants to establish a Panhandle season and a West Florida Shelf  
38 season, because the weather is different or there is preferred  
39 fishing times that are different. Florida could do that under  
40 the Alternative 2 delegation, and so that's why we're still  
41 waiting for Alternative 3, to get a sense of what is the scope  
42 that the states might want to do.

43  
44 It's possible that these might be collapsed into a single  
45 delegation alternative, or they may remain separate, but we're  
46 waiting for more information from the states, to see what they  
47 want to do. That's kind of an overview of delegation. I will  
48 pause there for a moment.

1  
2 **MR. KENNEDY:** You mentioned, and I don't have it in front of me,  
3 but the page that deals with delegation under the Magnuson-  
4 Stevens Act would allow states to regulate the boats that were  
5 registered in that state, and is that the way it reads, or can  
6 it be boats that are landing fish in that state, because I'm  
7 registered in Alabama, but I frequently fish out of and return  
8 to Mississippi and Louisiana and Florida. Is that actually the  
9 way it reads, is that the delegation of authority can go to the  
10 state to regulate boats that are registered in that state?

11  
12 **DR. LASSETER:** That is the exact language within Magnuson.

13  
14 **MR. KENNEDY:** Well, that's not going to work.

15  
16 **DR. LASSETER:** The way the document is also written is that  
17 state management is primarily a landings-based program and that,  
18 no matter where the fish are caught, where they are landed is  
19 the state that they would count against the quota.

20  
21 Now, how this works for law enforcement, in your example, in  
22 terms of you departing and leaving from a different state and  
23 your vessel is not registered in the state which is delegated  
24 the authority, I would have to ask GC about this, and so I'm  
25 going to turn this over to Roy.

26  
27 **DR. CRABTREE:** Well, my understanding of how this would go is,  
28 when you land in a state, you would have to conform to that  
29 state's regulations when you land.

30  
31 **MR. KENNEDY:** But if it says they're regulating boats that are  
32 registered in that state, that's going to foul us up.

33  
34 **DR. CRABTREE:** I think that part of it has to do with at-sea  
35 enforcement, and, if we go down this path, at-sea enforcement is  
36 going to be extremely difficult, and, virtually, we're not going  
37 to do it. We're going to rely on enforcement at the dock,  
38 because, to do at-sea enforcement, you would have to know where  
39 the boat is going to land before you know what rules it's faced  
40 with.

41  
42 Now, the reality of recreational enforcement, at least for  
43 private vessels, is that most of that is done at the dock  
44 anyway, and this would actually, I think, make dockside  
45 enforcement more straightforward, because now, when enforcement  
46 stops a boat at the dock, it depends on were they fishing in  
47 state waters or federal waters as to what rules they comply  
48 with, and this fixes that.

1  
2 There are a host of enforcement concerns and things that the  
3 details still need to be worked out, and, at some point, I think  
4 you ought to ask Shannon to comment on the implications of this  
5 for the stock assessments, because I know one of the things that  
6 I keep hearing from recreational fishermen is you want better  
7 science and better stock assessments.

8  
9 Going down the path we're talking about is going to lead to much  
10 less certainty in the stock assessments and create a host of  
11 problems, and I think you ought to have Shannon comment on that  
12 whenever you think that's appropriate, Mr. Chairman.

13  
14 **MR. BROWN:** If I could just comment real quick and follow-up on  
15 Roy's comment that I totally agree that it would actually  
16 simplify law enforcement, because, right now, they're dealing  
17 with state and federal and where were you fishing and that type  
18 of thing, and it's much easier to determine where you're coming  
19 from in a state, and I think, Marcus, your concern would get  
20 worked out, because I really believe that it's where the fish  
21 are landed.

22  
23 **MR. KENNEDY:** If the federal law specifically says the state is  
24 delegated authority to regulate boats registered to that state,  
25 that thing has got to be fixed formally before we can go down  
26 this -- That's a practical issue.

27  
28 **MR. BROWN:** Right, but I think it probably already is. I think  
29 we're probably missing something, because that would mean, like  
30 in Florida's case, like I said earlier, we have -- At certain  
31 times of the year, the majority of boats are coming from  
32 Georgia, and so they're not even -- They're launching and  
33 recovering in Florida, and they're not even going out, and so I  
34 think it's already handled someplace, and I don't think it's  
35 anything that --

36  
37 **MR. KENNEDY:** It's not a rule yet, but, if it is a rule, the  
38 provision is there.

39  
40 **MR. BROWN:** I think it is, is what I'm saying.

41  
42 **MR. KENNEDY:** Okay, because it was just that one page, and  
43 that's what it said on that one page.

44  
45 **CHAIRMAN CAPLINGER:** Go ahead, Shannon, please.

46  
47 **DR. CALAY:** From the stock assessment perspective, the biggest  
48 degradation you would see from going to a state-specific

1 approach could occur if the states implemented different  
2 management measures, say different size limits and different bag  
3 limits, et cetera, different open and closed seasons.

4  
5 That substantially degrades our fishery-dependent indicators of  
6 abundance. Our fishery-independent indicators, and this is just  
7 my personal perspective, I suppose, would need to be enhanced in  
8 order to give the value of information that we obtain from  
9 having both fishery-dependent and independent sources of  
10 information.

11  
12 You're really talking about a wholesale restructuring of the way  
13 we conduct data collection activities in the Gulf of Mexico to  
14 actually provide you with the same quality of information in a  
15 state-wide way, and so indices of abundance would be a massive  
16 problem, especially fishery-dependent.

17  
18 The other problem that you're going to have, which hasn't been  
19 directly addressed yet, is that it isn't sufficient to just  
20 certify a state program for collecting landings information from  
21 the recreational fisheries. In order to conduct a stock  
22 assessment, you need an actual time series from the imposition  
23 of the fishery to present day, and so you have to also calibrate  
24 those estimates and extend them backwards in time to be able to  
25 know your removals.

26  
27 Those processes are all underway in the various states, but they  
28 haven't been addressed yet. I think Louisiana is the farthest  
29 along in trying to create those calibrations that we need, and  
30 so you're really a long way from having the information you need  
31 to conduct a data-rich stock assessment state-by-state, and  
32 that's our fear.

33  
34 What you're going to likely end up with, if you move forward, is  
35 something far simpler than what we're doing today, something  
36 that essentially is a step backwards in the stock assessment  
37 complexity, and certainly a step backwards, as far as we're  
38 concerned, for what we consider to be -- We rank stock  
39 assessments based on essentially -- We considered age-structured  
40 stock assessments to be generally superior, NOAA does, to a  
41 surplus production model, for example.

42  
43 My fear is that, if you do go ahead and impose this, we'll have  
44 to take a step backwards towards simpler model structures, like  
45 surplus production models, which don't consider age-based  
46 fecundity and age-based mortality and age-based growth, for  
47 example.

48

1 Basically, we're essentially silent on this, because, whether or  
2 not you choose to go with the state, we'll still be asked to do  
3 what we can, I suppose, and we will probably find something we  
4 can do, but the likelihood is the uncertainty will increase  
5 until such a time as we completely restructure the data  
6 collection activities to accommodate this new state-wide  
7 approach.

8  
9 **MR. KENNEDY:** Surely it's not worse than now, because, now, if  
10 the states are harvesting 80 percent of the recreational catch,  
11 you already have that, because Texas has a year-long season, and  
12 Louisiana has a six-month season, and Mississippi and Alabama  
13 have a one-month season and Florida a three-month season, and so  
14 it probably won't be that bad. It will probably be better,  
15 because they might be a little closer than they are now.

16  
17 **DR. CALAY:** Well, the season length, we do attempt to  
18 accommodate within the stock assessment standardization, and  
19 we're already seeing the complexity of management for red  
20 snapper and a few other stocks has already degraded our ability  
21 to use fishery-dependent indicators of abundance.

22  
23 We are not able to model our way out of all of the management  
24 complexity that has developed in the Gulf of Mexico, and so  
25 we've already truncated the commercial fishery-dependent series  
26 with the imposition of IFQ. At the latest red snapper meeting,  
27 now we're talking about truncating the MRFSS and headboat, due  
28 to short recreational seasons.

29  
30 **MR. KENNEDY:** So we're already significantly degraded.

31  
32 **DR. CALAY:** We're already degrading the stock assessment.

33  
34 **MR. KENNEDY:** So going to state management will just do it a  
35 little bit more.

36  
37 **DR. CALAY:** It will potentially further degrade the stock  
38 assessment.

39  
40 **MR. KENNEDY:** Not a whole lot, but just a little more, because  
41 we're already there.

42  
43 **DR. CALAY:** One thing that will be important though, if you want  
44 to go state-by-state, is MRIP may not get you there in all  
45 cases, because one of the things that is basically -- Let's put  
46 it this way. There is a diversity of -- The way fishermen have  
47 reported their fishing location in the recreational varies  
48 tremendously trip-by-trip.

1  
2 In some cases, we have latitude and longitude, and, in some  
3 cases, we just have -- All the information is missing, except  
4 maybe they're fishing off of western Florida or some such thing.

5  
6 We also have situations where fishing trips begin in Florida and  
7 fish in areas off of Louisiana, which we can see in MRFSS, and  
8 so, until such a time as these state programs can give us more  
9 detail about where the fish are being removed, there will always  
10 be an additional source of uncertainty there as well, and so,  
11 once we get the state recreational surveys in place and  
12 certified and calibrated, so they can give us a historical time  
13 series, we may start to see the stock assessment improve again,  
14 but, until such a time, we're really kind of stuck with MRIP and  
15 all of the difficulties we have with MRIP. That won't be solved  
16 for some period of time.

17  
18 **CHAIRMAN CAPLINGER:** Ava, do you want to continue?

19  
20 **DR. LASSETER:** Thank you, Mr. Chairman. The next alternative,  
21 or the next approach, for which we also have two alternatives,  
22 is called conservation equivalency. This approach was developed  
23 based on the summer flounder management in the Mid-Atlantic,  
24 which each individual respective state underneath that council  
25 has its own quota, and so it's something similar to what we're  
26 talking about here in state management. There are positives and  
27 negatives, as far as their management program, but that's what  
28 designed this approach around.

29  
30 The idea is that management still does remain with NMFS, and  
31 each state participating in a conservation equivalency program  
32 writes a CEP, conservation equivalency plan, which it submits to  
33 NMFS, in Alternative 4, or, in Alternative 5, the state submits  
34 that plan first to a technical review committee, which consists  
35 of representatives of the states, the state directors.

36  
37 The technical review committee reviews it, and it goes back and  
38 forth to the states, just to make sure that everything is good,  
39 before forwarding it on to NMFS, and so NMFS is still the final  
40 approval under both of those Alternatives 4 and 5.

41  
42 Under all of these alternatives -- I'm sorry, but let me do the  
43 note first. For conservation equivalency, the state's plan must  
44 specify the red snapper season and bag limit, just like  
45 delegation, because, again, those are going to be removed or  
46 modified from the federal regulations. They would remain as  
47 default federal regulations for states that are not  
48 participating.

1  
2 For a conservation equivalency plan, the state must have its  
3 season and bag limit, and the plan must be reasonably expected  
4 to limit the red snapper harvest to that state's assigned  
5 portion of the recreational sector ACL.  
6

7 Further details on what would be required in a CEP are in the  
8 full amendments, which are provided in your briefing materials,  
9 and there's a list of what would go into a CEP. There is a  
10 sample timeline of that process would be carried out, and the  
11 council seems to be leaning more towards the delegation, and so  
12 I have focused more on discussing delegation right now than CEP.  
13

14 If you have more questions about the conservation equivalency  
15 approach, I can answer those as well, but the general sentiment  
16 is that having delegation gives the states greater flexibility,  
17 because they're not having to resubmit plans every year or two  
18 years. The CEPs could be submitted for one or two years.  
19

20 Rather than having to come back and forth with NMFS on this,  
21 delegation would afford the states great autonomy and  
22 flexibility than does the conservation equivalency approach,  
23 but, for all of these alternatives, both delegation and the CEP  
24 alternatives, if a state's plan is determined to be inconsistent  
25 with the requirements of whichever approach is selected, then  
26 the recreational harvest of red snapper in the federal waters  
27 adjacent to that state would be subject to the -- Here's this  
28 concept of default federal regulations for red snapper.  
29

30 Right now, those refer to the current bag limit and season start  
31 date of June 1, with the season ending when NMFS estimates that,  
32 under status quo, the Gulf-wide recreational ACL is going to be  
33 met or if your individual state's ACL would be met, and there  
34 would be a bag limit of two fish per person per day. Let me  
35 stop there for just a moment. Any questions on the conservation  
36 equivalency part or any recommendations regarding authority  
37 structure to the council?  
38

39 **CHAIRMAN CAPLINGER:** Ava, why does the adjacent state get  
40 penalized if the state -- Am I reading that wrong?  
41

42 **DR. LASSETER:** I'm sorry, but federal waters adjacent to the  
43 state. I apologize if I have a typo there. Yes, it's federal  
44 waters adjacent to that state.  
45

46 **CHAIRMAN CAPLINGER:** Okay, and so not adjacent, but farther out.  
47

48 **DR. LASSETER:** Correct.

1  
2 **CHAIRMAN CAPLINGER:** Perfect.

3  
4 **DR. LASSETER:** That does highlight a sticky point, which we  
5 won't go into all the hypotheticals, but you could have issues  
6 with one state participating and one state not participating and  
7 the council and NMFS would need to work out what would happen in  
8 these different situations when you have some states  
9 participating and some states not.

10  
11 Then also the to-be-reviewed EFPs that are coming up would work  
12 differently than how we envisioned state management working, and  
13 so a lot of the details of how all of this would work have yet  
14 to be worked out.

15  
16 **CHAIRMAN CAPLINGER:** Do we need a motion on this one or --

17  
18 **DR. LASSETER:** If the AP does have --

19  
20 **CHAIRMAN CAPLINGER:** Does anybody have a strong opinion on  
21 delegation versus CEP? I know Louisiana would prefer some  
22 delegation of management authority, but I would be -- I would  
23 support basically full delegation.

24  
25 **DR. LASSETER:** Just to explain Louisiana's, the vote by the  
26 council to select that as Louisiana's preferred was actually  
27 made before that Alternative 3 motion was made to put in that  
28 Alternative 3.

29  
30 **CHAIRMAN CAPLINGER:** So they may prefer that, maybe?

31  
32 **DR. LASSETER:** If we even know how it's defined. Again, we're  
33 not quite sure what that is. This idea of a more expanded  
34 delegation was raised and then added to the document after  
35 Louisiana knew that they wanted delegation, but that Alternative  
36 3, full delegation, still needs to be defined.

37  
38 **MR. WILLIAMSON:** Ava, maybe you know this, or not, but, if state  
39 management was adopted totally, everything would have to be  
40 consistent with Magnuson, and so, any regulations that were  
41 adopted on a state basis, everything would have to be consistent  
42 with Magnuson.

43  
44 Now, assuming that that were the case, where are these --  
45 Obviously the states get a lot of federal funds for carrying on  
46 these programs to help assist in stock assessments, and is NOAA,  
47 the feds, are they going to pull these dollars from the states  
48 and say, if you want to be managing this resource, then, baby,

1 it's yours and there is no longer any funding here?  
2  
3 **DR. LASSETER:** I am going to let Roy speak to that specifically,  
4 but, as far as this document is concerned, red snapper is still  
5 remaining a federally-managed species, and, as far as I know,  
6 there would be no changes in anything funding-wise by delegating  
7 authority to -- Red snapper is still maintained a federal  
8 species. There is an ACL, and things have to be required, but I  
9 see nothing funding-related, but let me turn that to Dr.  
10 Crabtree.  
11  
12 **DR. CRABTREE:** I would not expect there would be any reduction  
13 as long as red snapper remains in the fishery management plan.  
14  
15 **MR. WILLIAMSON:** So there would be no reluctance in that arena  
16 for a state to oppose taking over delegation of the resource?  
17  
18 **DR. CRABTREE:** None that I see.  
19  
20 **MR. WILLIAMSON:** Okay.  
21  
22 **CHAIRMAN CAPLINGER:** Please go ahead.  
23  
24 **DR. LASSETER:** Thank you, Mr. Chairman. Delegation and  
25 conservation equivalency, that's Action 1. The second action,  
26 and final action, in the individual state amendments concerns  
27 post-season accountability measures. Again, Alternative 1, no  
28 action, remain status quo, which I just didn't repeat here, is  
29 essentially the same as Alternative 2, except Alternative 2  
30 applies that post-season AM to the individual state and that  
31 state's ACL.  
32  
33 Then there is options which would apply if a state is managing  
34 both of its components, and so let me go through the full text  
35 of the alternative. Alternative 2 is, while red snapper is  
36 overfished, and so this comes back to this recently-approved  
37 Amendment 44 that will redefine, or has redefined, red snapper  
38 as no longer overfished, but, when red snapper is overfished, if  
39 the combined state recreational landings exceed the recreational  
40 ACL -- So we have two "ifs". First, red snapper has to still be  
41 classified as overfished, and, two, the total recreational ACL  
42 has to be exceeded before this post-season AM applies.  
43  
44 In those two situations, in the following year, reduce the  
45 recreational quota and the state's ACL by the amount of the ACL  
46 overage in the prior fishing year, and then here is our  
47 qualifier, unless the best scientific information deems that an  
48 overage adjustment is not necessary.

1  
2 This is basically saying, under those two situations, the AM  
3 would no longer be applied Gulf-wide, but it would be applied to  
4 that state's ACL if that state allowed their portion of the ACL  
5 to be exceeded.

6  
7 Now, again, the options are if they have both components, and so  
8 Option 2a would apply it to the component that exceeded the ACL,  
9 and so, if only one component exceeded the ACL, that component  
10 would pay back the overage entirely, and Option 2b would split  
11 the overage between the two components and apply it equally,  
12 50/50.

13  
14 Louisiana did select a preferred option and alternative through  
15 the council vote, which was, yes, to support Alternative 2, with  
16 Option 2a, to apply it to the component that exceeds its  
17 applicable ACL. I will stop there for just a moment and see if  
18 there's any questions or comments. Okay.

19  
20 That is the final action in these amendments, and, the next  
21 slide, here we have our link to the decision tool, and I noted  
22 again that John presented, and so those are the six amendments  
23 for a state management program, if there's any questions, or I  
24 will just turn it back to Mr. Chairman.

25  
26 **CHAIRMAN CAPLINGER:** Thank you, Ava. John, where are we heading  
27 next?

28  
29 **DR. FROESCHKE:** I think we should finish with Shannon's  
30 presentation and then maybe take a short break and then spend  
31 the remainder of the time to let you guys discuss and hopefully  
32 make some specific recommendations to the council.

33  
34 **CHAIRMAN CAPLINGER:** Okay. Do you all want to take a quick  
35 break right now, before we start with Shannon? Let's take five  
36 minutes. Thank you.

37  
38 (Whereupon, a brief recess was taken.)

39  
40 **CHAIRMAN CAPLINGER:** All right. Pushing to the end. Let's see.  
41 Let's hear the rest of Shannon's presentation, and then we can  
42 go in and start talking about recommendations and whatnot.

43  
44 **PRESENTATION: RED SNAPPER STOCK ASSESSMENT PROCESS (CONTINUED)**

45  
46 **DR. CALAY:** All right, and so I left off talking about some of  
47 the primary criticisms that we've heard regarding the stock  
48 assessment, and the first one that I would like to address is

1 the contributions of artificial reefs, and, frankly, we could  
2 talk for an entire meeting about this alone, and I've only  
3 prepared a few slides, but hopefully they will at least lead to  
4 some discussion topics.

5  
6 There is a perception that we are ignoring information from  
7 artificial reefs, and I want to make it very clear that the  
8 assessment does in fact use catch data and catch per unit effort  
9 data and indices of abundance from all habitats in the Gulf of  
10 Mexico, natural and artificial. Wherever fishing is occurring,  
11 we are receiving that fishery-dependent data from those fleets,  
12 and we are creating catch and catch rates that do include those  
13 artificial reef habitats.

14  
15 NMFS SEAMAP surveys using the assessments do not specifically  
16 cover artificial reefs, in particular the trawl surveys, because  
17 they don't want to trawl over structure, necessarily. However,  
18 the larval survey, which I mentioned as an indicator of the  
19 spawning stock biomass, implicitly does represent the spawners  
20 on all habitats in the Gulf of Mexico, because the larvae don't  
21 just occur from the artificial reef structures.

22  
23 It's all the larvae that we encounter are included in that  
24 survey, and there are a number of third-party surveys of  
25 artificial reefs off of Alabama and Florida that are used in the  
26 stock assessment, in particular the Alabama Reef Survey, which I  
27 have outlined there in red.

28  
29 The results from that Alabama Artificial Reef Survey is  
30 described by a presentation by Sean Powers, and the survey  
31 estimates of abundance for ages-three through eight in Alabama  
32 reef survey area are about 30 percent of the estimates from the  
33 stock assessment in the eastern Gulf. Actually, that's  
34 surprisingly consistent with our expectation.

35  
36 It has often been said in blogs, for example, that there are  
37 more fish in that Alabama survey area, by a large margin, than  
38 the entire Gulf of Mexico from the stock assessment, and that is  
39 not true. That is not factual.

40  
41 The number of fish from the Powers survey indicates that, in  
42 that Alabama survey area, about 30 percent of the animals ages-  
43 three through eight in the eastern Gulf occur there, and that's  
44 consistent with our understanding, based on the removals that  
45 occur there as well.

46  
47 Now, there is also a conversation occurring about whether these  
48 artificial reefs simply aggregate fish or whether in fact they

1 increase production, and, in all honesty, the studies that we've  
2 done in this area, although they are very interesting and  
3 they're in the publication record now, we're still working on  
4 this. This is still an area of active research.

5  
6 However, we can definitively say that artificial reefs make red  
7 snapper easier to catch, for sure. The catch rates are almost  
8 tenfold on artificial reefs, and so they are definitely making  
9 the red snapper easier to catch, and they are increasing,  
10 therefore, the catchability of the fisheries that occur there,  
11 and, in effect, they are shortening the fishing seasons, because  
12 the fishermen can catch the fish much faster than they used to.

13  
14 However, do they also increase production? We have done one  
15 study, which is published in *Marine and Coastal Fisheries* in  
16 2016, and it's by Mandy Karnauskas, et al., and she looked at  
17 the percentage of eggs that are produced on artificial  
18 structures relative to natural structures.

19  
20 What she found is that the total eggs that are produced on the  
21 artificial reefs is small, in fact, compared to the natural  
22 reefs, even though the animals are aggregated, and that's  
23 because artificial reefs only make up a small fraction of the  
24 total reef structure in the Gulf of Mexico.

25  
26 Here is what her results say, and, like I said, we're still  
27 actively conducting research on this topic. In the eastern  
28 Gulf, about 10 percent of the total eggs that are spawned are  
29 spawned on artificial structures, about 10 percent. In the  
30 west, it's about 5 percent, and, over the Gulf of Mexico, it's  
31 about 7 percent.

32  
33 Even though there are large aggregations of animals on the  
34 artificial reefs, and they do spawn there, the actual extent of  
35 artificial reefs in the Gulf represents a small proportion of  
36 the total reef structure that exists.

37  
38 **MR. ANDRY:** I have a question, and maybe I'm missing something.  
39 Would oil and gas platforms in the western Gulf be considered  
40 artificial reefs?

41  
42 **DR. CALAY:** Yes, they were.

43  
44 **MR. ANDRY:** Okay, and the western Gulf seems to be where the  
45 largest biomass of red snapper is coming from, and is there no  
46 correlation between the abundance of oil and gas platforms in  
47 the western Gulf as artificial reefs?

1 **DR. CALAY:** Well, I'm not an expert, necessarily, on the  
2 distribution of the oil and gas platforms, but my understanding  
3 is that most of the artificial reef structures occur in the  
4 eastern Gulf of Mexico.

5  
6 **MR. ANDRY:** There's way more oil rigs.

7  
8 **DR. CALAY:** There are more oil rigs in the west, and so I'm not  
9 the author of this paper, and I did want to say that I don't  
10 think we have made strong conclusions yet about how important  
11 enhancing production might be. There is still research ongoing  
12 today about this, both in the Science Center and academia. It's  
13 an open topic. One paper suggests that the production that's  
14 occurring on these artificial reefs may not be large. They  
15 certainly aggregate fish, and they certainly make it easier for  
16 fishermen to catch fish. That is no doubt.

17  
18 **MR. BRAD MILLER:** What is determining the eggs produced on the  
19 reef? Is it that they trawl near artificial reefs versus  
20 natural reefs?

21  
22 **DR. CALAY:** I think this is just based on where adults occur,  
23 where spawning sites are, the hydrodynamic model that Mandy has  
24 developed, and so they're not able to track a particular egg to  
25 where it was spawned. They are just suggesting that, based on  
26 the distribution of spawning sites, the circulation in the Gulf,  
27 and the distribution of natural artificial habitats, this is the  
28 best estimate they can make of what percentage of eggs occurred  
29 on those artificial structures.

30  
31 **MR. SEPP HAUKEBO:** I have heard the numbers for artificial reefs  
32 off of just Alabama range from 10,000 to 20,000, and that can be  
33 somebody that went out and dumped a Volkswagen or a dishwasher  
34 out there. I know there's not 10,000 oil rigs in the western  
35 Gulf, though. They're much larger, but the total number in the  
36 eastern Gulf is much larger as well.

37  
38 **DR. CRABTREE:** If I could, the number of oil rigs in the western  
39 Gulf is declining, because they are removing oil rigs, but  
40 you're right that it's the Panhandle. Alabama has the biggest  
41 artificial reef program in the Gulf, but there are a lot of  
42 artificial reefs off of parts of the Panhandle of Florida, too.

43  
44 If you look at these numbers, even if you believe these are bad  
45 underestimates of it, and so say that the production of eggs on  
46 artificial structure is twice as high as that, then it's 12  
47 percent. Let's say it's four or five times higher than what  
48 this indicates. Then it's around 30 percent, and so we might

1 have increased -- If you believe all of that egg production from  
2 the artificial reefs wouldn't exist if the artificial reefs  
3 weren't there, which seems a stretch to me, but, even if you  
4 accept that, then we may have increased productivity of red  
5 snapper in the Gulf by 25 or 30 percent, but the evidence we  
6 have on catch rates indicates that the catch rates on artificial  
7 reefs are ten to twenty times higher than the catch rates on  
8 natural bottom.

9  
10 To have this be a wash, you would have to believe that you're  
11 increasing the productivity of the Gulf by ten times, and that  
12 flies in the face of everything that we know about red snapper.  
13 There just isn't, I don't think, any credible argument that we  
14 have increased productivity by that much.

15  
16 I have thought about this for a long time, and I find it very  
17 difficult not to reach the conclusion that artificial reefs are  
18 significantly shortening the red snapper season, and I think  
19 that is just inescapable.

20  
21 Even if you believe these numbers are way off, it's just hard to  
22 see how they could be so far off that you come to a different  
23 conclusion to that, and I think that's an important thing, and I  
24 wish Bob Shipp could have been here today, because I think that  
25 would have been a great discussion to have with him, but I think  
26 that's something people really need to think about, because I am  
27 concerned that, when people talk about artificial reefs, they're  
28 only seeing the positive part of them, and they are not seeing  
29 the impact on catch rates.

30  
31 If you have a set amount of fish to catch, and you want to have  
32 a longer period to catch them, then you've got to reduce the  
33 catch rates. There is no other way to get there.

34  
35 **CHAIRMAN CAPLINGER:** Roy, the other side to that is -- If you  
36 make the other side of that argument, you would say, if there  
37 are so few fish on artificial reefs, 20 or 30 percent of the  
38 overall Gulf or whatever, and they're so easy to catch, and so  
39 you can catch those as fast as you want, then the Gulf must be  
40 full of red snapper, because, if 70 percent -- If you're talking  
41 about that 70 percent of the fish are not on artificial reefs,  
42 then we aren't even touching the amount of fish out there.

43  
44 **DR. CRABTREE:** That's a conversation that we've had quite a bit,  
45 and it really comes down to how much do the fish move, and so,  
46 if red snapper don't move at all, then you could, in theory,  
47 fish the hell out of the artificial reefs and have a pretty  
48 limited impact on the overall stock, and I have had this

1 discussion with Chris.

2  
3 The problem is we know that red snapper do move, but what we  
4 don't really know is exactly how much do they move. If it's the  
5 case that when you catch a fish off of an artificial reef, if,  
6 the next day, a fish swims over there from natural bottom and  
7 occupies the reef, then you're sucking the fish off of the  
8 natural bottom, and I don't think that's the case either, but we  
9 don't really know how much that happens.

10  
11 We do know, when you put an artificial reef in the water, there  
12 is snapper on it very quickly, and so it didn't create those  
13 snappers. They swam there from somewhere else, but the question  
14 of how much the fish move -- Because one thing I have talked to  
15 people about is could we just partition off the artificial reef  
16 zones off of Alabama and the Panhandle and essentially say, have  
17 at them, guys, and you can fish all you want on these artificial  
18 reefs, and could we do that without having a significant impact  
19 on the overall status of the stock?

20  
21 If it's really only about 6 percent of the spawning biomass, and  
22 if the fish don't move much, we maybe can, but, if it's like  
23 this black hole that just is sucking fish in from everywhere  
24 else, then it probably wouldn't work. I am talking to Clay and  
25 folks at the Science Center and in Florida about how to design  
26 some studies to try and look at that and trying to get better  
27 information on how that might work.

28  
29 **CHAIRMAN CAPLINGER:** Isn't there a ten-million-dollar grant  
30 right now that's out there trying to identify what the real fish  
31 population is?

32  
33 **DR. CRABTREE:** Yes, and I think a big part of that grant is  
34 going to look at habitat mapping, and so I think we'll have a  
35 much better understanding of how many artificial reefs there  
36 really are and where they are, because the way you'll get to the  
37 estimate of population size is to get to, okay, over this type  
38 of habitat, we find these kind of fish densities, and then you  
39 will categorize how much of each type of habitat is there in the  
40 Gulf and then calculate it out. There is also a big tagging  
41 component of that study, which I think will shed a lot of light  
42 on how fish move around.

43  
44 **MR. BLANKENSHIP:** Roy, that's why I was just going to ask you  
45 about the tagging part of it, because I know we tag a lot on the  
46 reefs, but do they tag them from natural habitat, and do you  
47 have any information about them moving from natural to those  
48 reefs?

1  
2 **DR. CRABTREE:** There has been tagging on natural habitat, and  
3 I'm sure, as part of the study, they will try to tag fish on all  
4 types of habitat. My understanding, and I'm out of the science  
5 end of all of this and so I can't really tell you, but I'm not  
6 convinced that we have enough of any of that to really  
7 understand it.

8  
9 Now, I think Chris Blankenship and Kevin Anson are talking to me  
10 about having some sort of artificial reef symposium or something  
11 in Alabama sometime this year, to try and pull all the  
12 information that we have about it and try to get some better  
13 understanding of how it works, and so I don't have all the  
14 answers to this, but I think it's important to understand that  
15 artificial reefs are probably having impacts that aren't what  
16 you might think they are, and we don't really understand how  
17 they play into this whole scenario.

18  
19 **MR. TURNER:** I know you're not the author of this paper, but do  
20 we have an idea of the percentage of artificial reefs out there  
21 versus natural bottom land mass, when we're talking about  
22 percentage of egg production?

23  
24 **DR. CALAY:** I hate to say, because I am not certain, but the  
25 results would certainly imply that the natural reef habitat --  
26 That there is far more natural reef habitat, but the actual  
27 density of spawners might be lower on natural reefs than it is  
28 on the artificial, but the natural reef habitat is much larger  
29 than the artificial reef habitat, and that's why you end up with  
30 more egg production actually on the natural habitat than on the  
31 artificial reefs, because there is just so much more natural  
32 habitat.

33  
34 **DR. CRABTREE:** I think that's exactly right, and my memory is  
35 only about 2 to 3 percent of the habitat in the Gulf actually  
36 has artificial structure on it. Now, that may be way off, and  
37 so maybe it's three times that, but that's still a relatively  
38 small amount of habitat.

39  
40 **DR. FROESCHKE:** We did a white paper on the council, a few years  
41 ago, and looked at that, when Bob Shipp was on the council, and  
42 I think it is about 3 percent. The other thing to remember,  
43 based on the figures that Shannon showed, is the artificial  
44 reefs typically only support red snapper between the ages of  
45 about two and seven. If you remember, those don't have near the  
46 reproductive capacity as the larger animals that aren't really  
47 on those reefs.

1 **MR. KENNEDY:** The larger animals are on a lot of the reefs, and  
2 it doesn't really make them easier to catch. It makes them  
3 easier to locate. If you can locate the fish, then the small  
4 ones are easier to catch, but it's really, really hard to catch  
5 the real big fish off of artificial reefs and oil rigs, I mean  
6 like really, really hard. You damned near can't catch them.

7  
8 That's why, when you go diving, you look down there and all the  
9 big ones that have got hooks in their mouths with leaders  
10 hanging off of it, because they're almost impossible to catch,  
11 but, on natural bottom, where you don't have a lot of relief,  
12 that's where we catch our big tournament grade thirty to thirty-  
13 five-pound red snapper. We just about can't do on artificial  
14 reef. We have to go out to the flat bottom, where you don't  
15 have a lot of structure to cut them off.

16  
17 **DR. CRABTREE:** My suspicion is, and, of course, I don't know the  
18 answer to this, but, I mean, you've got about 80 percent of the  
19 catch coming off of Alabama and the Panhandle of Florida, and my  
20 guess is, Gulf-wide, I would guess 80 or 90 percent of the  
21 recreational catch of red snapper is coming off of artificial  
22 reefs.

23  
24 **DR. CALAY:** We absolutely see that impact on the age composition  
25 data. I was alluding to that when I made the presentation,  
26 where the age composition data essentially says the population  
27 is between ages-two and eight from the landings, and, if the  
28 landings are in fact coming predominantly from the artificial  
29 reefs, and, if in fact there are older animals there that we're  
30 not observing, then it's an important -- It's an element of the  
31 stock assessment that you need to be aware of, because there is  
32 tension then between your indices of abundance, that suggest an  
33 increase, and the length composition data, which is saying the  
34 stock is not increasing.

35  
36 We are well aware of it. It's been discussed at a number of  
37 stock assessment meetings, and we tend to weight higher the  
38 indices of abundance and the length composition data, but it is  
39 an important element of what the data tell us to be aware of.

40  
41 All right, and so, to better address these questions about  
42 production on artificial reefs, kind of alluding to or segueing  
43 to what you already discussed, but we need improved maps of the  
44 artificial and natural structures, and we need also fish surveys  
45 on these structures, maybe by some advanced technological camera  
46 or ROV.

47  
48 We also need more process studies to address the relative

1 quality and quantity of eggs produced and post-settlement  
2 survival on artificial reefs versus natural habitats, and that  
3 would help us address this question about how much production is  
4 enhanced by artificial reefs.

5  
6 The remaining things I have are really just more information  
7 about the way the recreational landings are done, and so perhaps  
8 it's not that important. I can go over it fairly quickly,  
9 because you've already seen it in a number of other  
10 presentations. I will just go over it very briefly.

11  
12 There are a variety of recreational data collection programs  
13 that occur throughout the United States and territorial waters.  
14 In the Southeast, we use TPWD, LA Creel, the Southeast Headboat  
15 Survey, the MRFSS access point interviews, as well as the  
16 telephone survey data, which is what we traditionally call MRIP.  
17 Now we have these new supplemental surveys coming onboard.

18  
19 Just kind of a picture of what the present looks like today, for  
20 MRIP APAIS, we still have that Access Point Angler Interview  
21 Survey going on in Florida, Alabama, and Mississippi. It's  
22 still used in conjunction with the telephone survey. However,  
23 in 2018, this year, it will be replaced with that FES, we're  
24 calling it, the Fishing Effort Survey, which is that mail-in  
25 survey.

26  
27 That's going to have an important impact on our perception of  
28 recreational landings. That's why we're putting a lot of effort  
29 into trying to calibrate that number and extrapolate it  
30 backwards in time to create a new time series of recreational  
31 landings.

32  
33 We're going towards the for-hire survey for the charter boat,  
34 which is another animal entirely. For headboats, in all five  
35 states of the Gulf, headboat landings and discards now are  
36 measured by the Southeast Regional Headboat Survey, which is  
37 administered by the Southeast Fisheries Science Center, and it's  
38 logbook based.

39  
40 Now we have the Louisiana Creel Survey coming onboard, which has  
41 been certified, and it's been instituted by the state as a  
42 replacement for MRIP as a general survey, and it's intended to  
43 achieve higher sample sizes and greater precision than MRIP, at  
44 least, and I will get a little bit more detailed about that in a  
45 moment.

46  
47 We also have TPWD, which has been going on since the 1970s, and  
48 it's an angler-based survey out of Texas. It looks at private

1 and charter boats, and so all of these sources of recreational  
2 information have been included in the stock assessments that we  
3 have conducted throughout time at the Miami Laboratory.

4  
5 The status of the LA Creel survey right now, on December 29, we  
6 did certify the LA Creel survey, but still we need that  
7 calibration, so that the estimates from 2014 through 2017 can be  
8 used now in combination with MRIP estimates to estimate prior  
9 years of catches in Louisiana, and so, basically, we need that  
10 time series extended backwards in time to use for recreational  
11 removals in the stock assessment. NOAA is working with MRIP  
12 consultants and with Harry Blanchett and Joey Shephard to  
13 develop these ratio calibration estimates.

14  
15 We are aware of -- Well, obviously, there is a concern that MRIP  
16 is not very effective for these short-season fisheries, these  
17 pulse fisheries, and, the red snapper season being very short,  
18 we do consider it now to be a pulse fishery, and so that's why  
19 we have worked -- When I say "we", I'm really talking NOAA, but  
20 we have worked to develop these supplemental surveys to address  
21 this in cooperation with our Gulf partners.

22  
23 What's been done, to date, is that NMFS and GulfFIN have  
24 conducted three workshops in 2013, 2014, and 2015, in  
25 consultation with MRIP experts, to develop testable designs for  
26 state-based supplemental surveys. Based on these workshop  
27 results, four of the states are pursuing implementation of  
28 surveys, and I will tell you about them in a moment.

29  
30 NMFS did fund pilot projects in Alabama and Texas, and we have  
31 also made MRIP expertise available to all those states to assist  
32 in their survey development and to conduct peer reviews of the  
33 pilot test results, and so the progress to date, that I am aware  
34 of at least, is that, in Mississippi Tails and Scales, the pilot  
35 testing and peer review are complete, and certification is  
36 expected soon. Likewise in Alabama, the same story, but the  
37 next steps for both Alabama and Mississippi will be deciding how  
38 to integrate these supplemental surveys with the general MRIP  
39 survey.

40  
41 To do that, we require the development of calibration methods to  
42 convert these new estimates backwards in time, essentially to  
43 create a landings series of removals in those states.

44  
45 The Gulf Reef Fish Survey, pilot testing is ongoing or complete,  
46 and I'm not sure which one. The peer review will actually occur  
47 next month, in St. Petersburg, and they are also looking for now  
48 methods to integrate and calibrate that survey for use.

1  
2 In Texas iSnapper, all I've been told, to date, is that the  
3 testing is complete and they are awaiting a state decision for  
4 how Texas wants to proceed. Now, perhaps John or someone else  
5 knows more than that about Texas iSnapper, but that's the  
6 information that I have, to date.

7  
8 **DR. FROESCHKE:** I don't have any more current than that.

9  
10 **DR. CALAY:** Okay. That's really all that I prepared. I mean, I  
11 did hear someone -- The general perception has been that perhaps  
12 the MRIP has underestimated the recreational landings and what  
13 implications will that have on the stock assessment, and  
14 certainly it's in our plan to actually produce new estimates of  
15 the stock assessments once we do receive the new recreational  
16 estimates.

17  
18 I just did want to caution that sometimes the results can be  
19 counterintuitive, because, if you actually have more landings  
20 than you expected, and, if those higher landings have been  
21 consistently higher throughout time, the stock assessment model  
22 will generally compensate by saying, if there were more  
23 landings, then the stock must have been larger and more  
24 productive, and so, at the end of the day, what you see is the  
25 stock status actually remains relatively unchanged, but your  
26 catch limits might be higher than what -- Your catch limits  
27 actually increase, and so you can take more catch out of that  
28 stock.

29  
30 Now, the problem occurs when it's not a consistent bias through  
31 time. Say maybe in 1980 MRIP was doing a fairly good estimation  
32 of recreational, but it got worse and worse as people moved  
33 toward cellphones and as people stopped answering the telephone.  
34 If in fact that recreational catch had been larger now, but it  
35 was actually fairly accurately estimated back in time, that can  
36 have different implications in the stock assessment. That  
37 result tends to be less optimistic, say.

38  
39 We have produced a few test cases, where we have examined the  
40 impact on stock assessment of different recreational estimates.  
41 In most cases, the impacts have not been enormous, but we'll be  
42 doing a full analysis of that once we do receive the actual  
43 recreational estimates. It's on our annual plan, but those  
44 estimates have been delayed, and so we're waiting to get them as  
45 well. I can answer any questions you might have.

46  
47 **MR. LANDGRAF:** I have a question, and pardon me, but it's from a  
48 layman perspective, but, as we were talking about different

1 areas, and going back to what Dr. Crabtree was mentioning about  
2 catches on artificial reefs, do more commercial -- Are more  
3 commercial fish caught in the west or the east? If so in the  
4 west, are they caught on artificial reefs or on natural reefs?  
5

6 **DR. CALAY:** Well, it looks like -- It's hard to -- I don't know  
7 the answer as to the artificial and natural reef habitats in the  
8 west and what percentage of commercial landings occur. I know  
9 that -- This shows you the recent landings history by fleet, and  
10 so the dark-blue color on the top, those are the handline  
11 landings in the east, and then the medium-blue color below it is  
12 the handline landings in the west, and so you can see that the  
13 handline landings in the west are larger than they are in the  
14 east, by millions of pounds, at least.  
15

16 **MR. LANDGRAF:** Right.  
17

18 **DR. CALAY:** Longline, you're looking at -- In the east, you're  
19 looking at very small longline landings in the east and  
20 considerably larger in the west, but still relatively small, and  
21 so I would say the commercial landings in the west are larger  
22 than they are in the east, but I don't know what fraction of  
23 those occur on natural versus artificial habitats.  
24

25 **MR. LANDGRAF:** Handline, just because I work in the industry and  
26 I work offshore, or I had for many years, I would see a lot of  
27 commercial boats fishing around platforms, at many times during  
28 the year. Making the argument that fishing around the  
29 artificial structures depletes the stock faster, because they're  
30 easier to catch, because you know they're around a structure,  
31 and so you probably know where I'm going with this already.  
32 Should you go to the commercial folks and say, hey, you  
33 shouldn't fish around artificial structures?  
34

35 **DR. CRABTREE:** I don't think we're making the argument that it  
36 depletes the stock faster. I mean, the stock has a certain  
37 level of productivity, and it can support a certain amount of  
38 catch, whether you take it off of artificial structure or  
39 natural structure. My point is that you catch your quota  
40 faster.  
41

42 **MR. LANDGRAF:** Right.  
43

44 **DR. CRABTREE:** Now, for the commercial guys, they want to catch  
45 fish fast, because they don't want to spend any more time out  
46 there than they have to.  
47

48 **MR. LANDGRAF:** Their optimum size is --

1  
2 **DR. CRABTREE:** My guess is most of them are fishing, a lot of  
3 them are fishing, on artificial structures and things, and so  
4 it's probably platforms, like you say, in the western Gulf, and  
5 I don't know that that's necessarily bad. My concern with it is  
6 just more about how it impacts the recreational season.

7  
8 **MR. LANDGRAF:** It seems like the more -- Getting to Marcus's  
9 point about not being able to catch, which I somewhat  
10 respectfully disagree, about catching quality fish around  
11 platforms, but I think it depends on the area and the way you  
12 fish, but, if the recreational are going out and they want to  
13 catch quality fish, and there is so much pressure on these  
14 artificial platforms throughout the entire year by commercial,  
15 et cetera, it becomes a difficult proposition, and it also leads  
16 to recreational bycatch in trying to catch the bigger fish,  
17 right, when you can only catch a few of them and you only have a  
18 very few days to do it.

19  
20 **DR. CRABTREE:** I do think, based on conversations with Greg  
21 Stunz and a lot of people who have done a lot of work on this,  
22 that rigs are different than the artificial reef zone off of  
23 Alabama. They have differences on it, and I can't speak to how  
24 hard it is to catch big fish off of a platform relative to  
25 natural bottom, because I don't have any basis to know one way  
26 or another.

27  
28 **MR. KENNEDY:** A quick question for you, or maybe not quick, but  
29 anyway. In the state management, when it comes to all the data  
30 acquisition and such, currently, everything has -- All the  
31 management plans have to be operated for maximum sustainable  
32 yield. Earlier, there was an alternative mentioned of managing  
33 for maximum opportunity, and whether they can or can't, under  
34 the law, all of the states are going to try to manage for  
35 maximum opportunity, meaning maximum days.

36  
37 As the data is collected, it seems like there is always a catch-  
38 22 for recreational landings. If we catch a lot of fish, it  
39 seems to indicate a healthy stock, but it also makes us catch  
40 our quota quicker, and we have less fishing days, but, if we  
41 catch less fish, we don't necessarily indicate that we have a  
42 healthy stock. We indicate that we have an unhealthy stock, but  
43 we don't reach the quota quicker, and so we have more fishing  
44 days, and so that seems to be a no-win situation in the landings  
45 data for recreational anglers.

46  
47 Then we've got this conundrum with being required to manage for  
48 maximum sustainable yield, which sends us down one road, versus

1 managing for maximum opportunity and access.

2  
3 **DR. CALAY:** Well, I can address at least one part of that  
4 question. Your concern is really with regard to catch rates. I  
5 mean, that's where you see it in the stock assessment model. If  
6 the catch rates decline, that indicates that abundance is  
7 declining in the stock assessment model, and so there is always  
8 a concern that, if the catch rates go down for any reason that  
9 is not correlated directly to abundance, that there is a  
10 hesitancy to provide that sort of information, fearing that the  
11 stock assessment model will misinterpret it.

12  
13 We have a scoping process for data that's fairly -- It's very  
14 open and transparent, and we spend a lot of time talking about  
15 whether these indicators of abundance truly track abundance or  
16 whether there might be management effects or fishing behavior  
17 effects, and so I think you can rest assured that, if that sort  
18 of information is provided, that there has been some decision to  
19 reduce the catch rates by moving fishing off of artificial  
20 structures, for example, that we'll be aware of that change and  
21 we will try to incorporate it into the stock assessment so it  
22 won't have a negative impact on your perception of the trends in  
23 abundance.

24  
25 It does point out the need for emphasizing the collection of  
26 fishery-independent information in the Gulf. Most of our stock  
27 assessments here do rely on fishery-dependent information, and  
28 some of our stock assessments, and not red snapper, but some of  
29 them are fully dependent on fishery-dependent information.

30  
31 As we introduce these management complexities, and as we  
32 increase the number of management regulations that exist and the  
33 differences between how they operate in different areas or  
34 states, we will need to depend more and more on fishery-  
35 independent sources of information.

36  
37 That's something that I have been screaming from the rafters at  
38 Bonnie for years, is that the value of our fishery-dependent  
39 information is currently being degraded over time, and it's  
40 becoming less and less useful to us, and now we're really in the  
41 position where we're starting to truncate series and not  
42 consider them anymore, because we can't determine what has been  
43 a management effect or a fishing behavior effect versus an  
44 abundance change.

45  
46 Now, you also talked about reference points, and all I can  
47 really say about that is that the Science Center and SERO  
48 certainly have been communicating about what sorts of reference

1 points might be considered. Under Magnuson -- I don't want to  
2 really talk about -- I don't understand fully what flexibility  
3 that we have under Magnuson.

4  
5 It specifies maximum sustainable yield, and I'm not a lawyer,  
6 and I don't work at Headquarters. I just execute stock  
7 assessments, and there may be more flexibility, and there may  
8 not be, but certainly we have discussed that, in a recreational  
9 context, where biomass is not your objective, where fishing  
10 opportunity and days-at-sea are your objective, that a reference  
11 point might look very different, and so we're certainly  
12 communicating about what options might exist.

13  
14 What's legal under Magnuson or under any changes, any modified  
15 law, that might come up, I can't comment on that. I am not  
16 willing to comment on that. I am not informed. I don't know if  
17 you want to talk, Roy.

18  
19 **DR. CRABTREE:** Well, I will just say that maximum sustainable  
20 yield makes sense for a commercial fishery, because profits  
21 equal pounds, but imagine if you had a fishery that was only  
22 charter boat, and that was the only sector that was there, and  
23 your goal was to maximize the amount of economic gain you make  
24 from it.

25  
26 You would want to maximize the number of trips, right, because  
27 that's how it would produce profits, and so what you would want,  
28 in that case, is the fishing to be good enough that people --  
29 That it kept their interest and they had enough fun that they  
30 would pay to go fishing, but you wouldn't want to have it so  
31 good that you caught them all up too fast.

32  
33 When you get into a mixed fishery, like red snapper, where you  
34 have charter boats and private and commercial interests, it gets  
35 a lot more complicated, but it's not clear to me that maximum  
36 sustainable yield means much to how you would manage a  
37 recreational fishery, but it is what is in the statute, and I  
38 think to go towards some other measure would require  
39 legislation, and I'm not aware of any -- Of all the legislation  
40 that is being considered now, I don't believe any of it  
41 addresses the issue of the reference point.

42  
43 **CHAIRMAN CAPLINGER:** Dr. John.

44  
45 **DR. FROESCHKE:** It's 3:37, and I think it would be the time, if  
46 you guys have some general discussion or some overall  
47 recommendations or something, I think this would be the time to  
48 have that discussion.

1  
2 **PANEL DISCUSSION AND RECOMMENDATIONS TO IMPROVE ACCESS FOR**  
3 **RECREATIONAL ANGLERS IN THE RED SNAPPER RECREATIONAL COMPONENT**  
4

5 **CHAIRMAN CAPLINGER:** This part of our purpose here, we were  
6 supposed to provide more -- We were supposed to look into  
7 management measures which would provide more quality access to  
8 the resource in federal waters, reduce discards, and improve  
9 fisheries data collection.

10  
11 I think we need to work towards those three buckets of  
12 recommendations, but what I would like to say quickly is that,  
13 personally, I am kind of the cup is half full kind of guy. I  
14 have heard everything today, and I maybe I read it that way, but  
15 it sounds positive. I hear that we have more fish, and I hear  
16 we're probably not overfished, and I hear that just a tiny  
17 portion of the fish are on artificial reefs, and so there must  
18 be this giant swarm of fish out there that we clearly cannot  
19 find, and so that's a good thing.

20  
21 I hear that the management tool we're using is overestimating  
22 the amount of fish we catch, yet we clearly haven't hurt the  
23 fish population, and so that's a good thing, and we're in favor  
24 of state management, which I think gives us a better voice and  
25 allows some flexibility, which we've never had in the past, and  
26 so that's a good thing.

27  
28 Just as a simple guy, a simple philosophy, a simple point of  
29 view, I think that things are a lot better than where we were a  
30 year ago. I think there is still -- We're waiting on the latest  
31 stock assessment, and that should help clarify, maybe, some of  
32 this, and there is also that ten-million-dollar grant study  
33 that's been used to maybe identify what -- Maybe clarify or  
34 provide a little more insight to how many fish we have.

35  
36 I think we're headed in the right direction, and the council is  
37 going to be -- I think it's going to be a tough spot here, and I  
38 think that they are being placed in a position where they're  
39 going to be against each other to try and come to a conclusion,  
40 and so, the more clarity we can provide to them as recreational  
41 anglers, the better off, I think -- Hopefully, the better off  
42 their decision, or the easier their decision, might be.

43  
44 I am encouraged about the fact that this fishery may get removed  
45 from the Gulf Council and into the states' hands, and so, as far  
46 as access, we made a motion earlier to support state management  
47 for recreational red snapper, that we support recreational state  
48 management for red snapper, and we also had a suggestion to

1 review the allocation, which it's clearly been too long, and  
2 things have probably changed a good bit.

3  
4 We have some issues with separating the for-hire and the  
5 recreational anglers, and does anybody else have any suggestions  
6 to help with access to federal waters? Is there anything else  
7 that we need to mention? John, if there are things that we  
8 should be talking about that we like or talking about that we  
9 don't like, please help us throw some stuff on the wall, and  
10 we'll figure out what sticks.

11  
12 **MS. RALSTON:** Charlie, can I ask a question?

13  
14 **CHAIRMAN CAPLINGER:** Yes, ma'am.

15  
16 **MS. RALSTON:** I know that there has been some discussions within  
17 I believe it's the SSC about some additional flexibility that  
18 the council may already have in management, apart from state  
19 management, and could somebody, either from the council or Roy  
20 or Shannon, speak to that, just kind of beyond this hard-  
21 poundage ACL? It seems like there are some other options that  
22 may be available, and am I misstating that?

23  
24 **DR. CALAY:** I'm not sure that I understand your question  
25 completely. Are you asking if there are alternatives to ACLs,  
26 in terms of how a fishery can be managed?

27  
28 **MS. RALSTON:** I think in terms of managing to a hard-poundage  
29 ACL, and it does seem like there is some flexibility, even  
30 within Magnuson, that could be used by the council, particularly  
31 for the recreational sector. We've had a lot of conversations  
32 about how MSY is not probably the most appropriate management  
33 tool for recreational anglers, and so are there things outside  
34 of that box that we could encourage the council, and by  
35 extension the SSC, to further explore that might open up some  
36 more doors?

37  
38 **DR. CALAY:** All I can really tell you in that regard is that we  
39 have argued for a number of years, particularly in the context  
40 of the U.S. Caribbean, that these hard ACLs may not be the most  
41 appropriate management tool. We have been given various  
42 guidance over the years. At times, it's been a very, very  
43 strict interpretation that there were no other options and that  
44 ACLs had to be put into place and complied with, essentially.

45  
46 Lately, all I can say, from personal experience, is that there  
47 does seem to be more discussion now about whether there might  
48 eventually be more flexibility. I don't know, currently, how

1 much flexibility General Counsel, for example, is willing to  
2 consider, and so it would really be, probably, a more  
3 appropriate question for the Office of Science and Technology or  
4 General Counsel.

5  
6 **DR. CRABTREE:** It's more difficult with red snapper, because you  
7 have specific language in Section 407 that requires us to have  
8 quotas, and it requires us to close the fishery when they're  
9 reached. Now, we've been round-and-round about quotas being in  
10 pounds or numbers, but I don't think it really makes much  
11 difference one way or the other about that. I have testified in  
12 front of the Senate Commerce Committee and expressed the agency  
13 view that we think that Section 407 should be repealed, and I  
14 did that years ago, and it's still there.

15  
16 **MR. LANDGRAF:** The 407, is that -- Repealing that, is that a  
17 part of the Modern Fish Act?

18  
19 **DR. CRABTREE:** Yes.

20  
21 **MR. LANDGRAF:** Okay.

22  
23 **DR. CRABTREE:** There are revisions that would get rid of it.

24  
25 **MR. LANDGRAF:** That's one of the notes that I had earlier, and  
26 I'm assuming that this committee supports the Modern Fish Act,  
27 and I know we're taking resolutions, and does it make sense to  
28 reinforce that resolution to the council to support the Modern  
29 Fish Act?

30  
31 **CHAIRMAN CAPLINGER:** Yes, I would think we certainly should  
32 bring that motion up.

33  
34 **MR. LANDGRAF:** Okay. **I will make it. This committee would**  
35 **encourage the Gulf Council to join our ad hoc sub-committee in**  
36 **supporting the Modern Fish Act.**

37  
38 **MR. DOUGLAS GREGORY:** The council is prohibited from lobbying  
39 Congress, and so we could not -- The council could not send any  
40 letter to Congress advocating for any measure or bill. All we  
41 can do is answer questions that Congress poses to us.

42  
43 **MR. TURNER:** The Senate Committee and the House Committee. Make  
44 that motion to them, because I thought I heard earlier that the  
45 Gulf Council cannot do it, but I don't believe that that applies  
46 to this ad hoc committee.

47  
48 **MR. GREGORY:** This committee can only make recommendations to

1 the Gulf Council. You cannot make recommendations directly to  
2 National Marine Fisheries Service or any other entity.

3  
4 **MR. TURNER:** So write your congressmen and your senators.

5  
6 **MR. LANDGRAF:** But that doesn't mean that our motion still can't  
7 go to the Gulf Council in our body of work.

8  
9 **MR. TURNER:** I second it.

10  
11 **MR. LANDGRAF:** Whatever you want to call our committee, ad hoc  
12 public snapper recreational committee, fully supports and  
13 endorses the Modern Fish Act, and I think it's H.R. 200.

14  
15 **CHAIRMAN CAPLINGER:** Can we have a second on that?

16  
17 **MR. LANDGRAF:** Let's see how the language reads and let people  
18 see if it's adequate.

19  
20 **MS. RALSTON:** It's my understanding that the Modern Fish Act,  
21 which is H.R. 2023, was incorporated into H.R. 200, which is a  
22 little bit broader Magnuson-Stevens reauthorization, and so  
23 however you want to word it is fine.

24  
25 **MR. LANDGRAF:** If that's more appropriate.

26  
27 **MS. RALSTON:** Maybe you could just say the "Modern Fish Act as  
28 incorporated into H.R. 200" or something.

29  
30 **MR. LANDGRAF:** Okay.

31  
32 **AP MEMBER:** Second.

33  
34 **CHAIRMAN CAPLINGER:** All in favor; any opposition. That motion  
35 passes.

36  
37 **MR. LANDGRAF:** Charlie, one other thing that I heard earlier was  
38 some discussion around the black market of fishing in Mexico and  
39 the lack of either awareness or enforcement in that, and I don't  
40 know if there is some kind of motion or recommendation to the  
41 Full Council to possibly learn more about that issue and explore  
42 opportunities that can be done to help mitigate that.

43  
44 I don't know if that's a motion-able or if it's just a  
45 recommendation, and it might be just a comment, and I don't know  
46 if the committee wants to do anything with that, but I did hear  
47 that as some discussion earlier.

1 **CHAIRMAN CAPLINGER:** It's clearly an issue, but I just don't  
2 know what to do about it.  
3  
4 **MR. LANDGRAF:** I guess my question to Doug is do you feel that  
5 this issue is attracting enough attention at the Gulf Council  
6 level? If it is, then so be it. If we need to just make it as  
7 a point of emphasis for the council, it might be good to add.  
8  
9 **MR. BOYD:** Yes, that's what I was going to say, was I think  
10 that, if you want the council to take further note, no matter  
11 whether they are addressing it or not, you ought to go ahead and  
12 make a motion on it.  
13  
14 **MR. LANDGRAF:** Okay.  
15  
16 **MR. BOYD:** I would like to just throw something out after we get  
17 finished.  
18  
19 **MR. LANDGRAF:** Does somebody want to help me with that motion?  
20  
21 **MR. TURNER:** Just as a clarification, we're making these in the  
22 form of motions, but these are recommendations, because we were  
23 asked earlier to make them in the form of a motion.  
24  
25 **CHAIRMAN CAPLINGER:** Correct.  
26  
27 **DR. FROESCHKE:** Yes, that just helps us, such that we don't  
28 misinterpret your advice, which we try to turn these around  
29 correctly.  
30  
31 **MR. LANDGRAF:** I will throw this out, and we can nitpick with  
32 the wording, and so the recommendation from this AP is to bring  
33 -- It's for the council to investigate the -- Help me out there,  
34 **Mark.**  
35  
36 **MR. TURNER:** Investigate the impact of the illegal red snapper  
37 fishery occurring in U.S. waters operating out of Mexico.  
38  
39 **MR. LANDGRAF:** That is exactly what I said.  
40  
41 **MR. TURNER:** Illegal fishery occurring in U.S. waters operating  
42 out of Mexico.  
43  
44 **CHAIRMAN CAPLINGER:** Is there a second?  
45  
46 **AP MEMBER:** Second.  
47  
48 **CHAIRMAN CAPLINGER:** All in favor; any opposition. The motion

1 **passes.**

2  
3 **MR. BOYD:** If you don't mind, there is an issue that's been  
4 batted around at the council for a couple or three years, and I  
5 just wanted to make sure this group is aware of it. There is a  
6 circumvention, if you want to call it that, of the law,  
7 basically, and it's legal.

8  
9 In Texas, we have a very creative charter/for-hire guy who went  
10 and bought commercial quota, and what he does is he takes  
11 recreational fishermen on his boat and they volunteer to catch  
12 his commercial quota for him, and then he takes that into a fish  
13 house, and the fish house cleans them and sells them to him at  
14 a, quote, unquote, preferred rate, and they don't pay anything  
15 to him, which circumvents the law, and it's legal.

16  
17 I'm still kind of unsure whether they're considered crew or not,  
18 since they're volunteers, and the Coast Guard has looked into  
19 it, and they don't think that there is anything wrong there, but  
20 it obviously is getting around the fact that we don't do  
21 intersector trading in red snapper or any other fish that's in  
22 an IFQ program.

23  
24 He is very creative, and he's a very smart guy, and he has  
25 created a way for him to shift commercial fish to the  
26 recreational fishermen, and I don't know how many of you all  
27 understand that or know about it, but, at some point, if you all  
28 meet again, you may want to discuss that. It's a pet peeve of  
29 mine, and it's a pet peeve of, I can tell you, the State of  
30 Texas game and law enforcement people, because they can't touch  
31 him, and it's just something this group ought to know about,  
32 because you're dealing with both recreational fishermen who fish  
33 in their own boat and on for-hire boats, and so I just wanted to  
34 put that out there. Thank you.

35  
36 **CHAIRMAN CAPLINGER:** Roy, is it possible right now for  
37 recreational anglers to buy commercial quota, if I wanted to  
38 take my family out, and I said, you know what, I don't know if  
39 I'm going to get to fish next year and I'm going to go buy 500  
40 pounds of quota from some guy that wants to sell it?

41  
42 **DR. CRABTREE:** You can buy it, but you can't fish it unless you  
43 buy a commercial reef fish permit and put it on your boat, and  
44 that means you have to put a VMS on it, which would essentially  
45 make you a commercial fishing vessel.

46  
47 **MR. MILLIER:** Kind of along those lines, I think, last time, we  
48 talked about tournaments having a quota specific for them, and

1 is that related at all to the tournaments? When the quota has  
2 been met, can they buy commercial quota for their weekend?

3  
4 **DR. CRABTREE:** They cannot right now. I mean, they can buy it,  
5 but, again, they wouldn't be able to fish it. Now, I have long  
6 felt like one way to get around some of this would be to set up  
7 a situation where a tournament or someone could apply for a  
8 special -- We could create a new permit, and they could apply  
9 and get the permit. They would have to have a weighmaster and  
10 ways to enforce it, and then they could buy or lease shares, or  
11 fish, from the commercial guys, and they could have a fishing  
12 tournament out of season, but that gets into what Doug says  
13 about intersector trading.

14  
15 I can remember, ten years ago, that was what the recs wanted,  
16 and they were going to buy out all the commercial guys and get  
17 all the fish. Somewhere along the way, it became a dirty word,  
18 and everybody turned against it, and it's never been clear to me  
19 exactly why.

20  
21 What Doug described with these charter trips like that, there is  
22 some of that going on, and I have had the attorneys and everyone  
23 look at it, and it is legal. To my knowledge, the council has  
24 not once proposed looking at a way to stop that, and I think  
25 largely because people look at it as what is it hurting, and  
26 that's kind of my attitude. It's not clear to me what it's  
27 hurting.

28  
29 **MR. BOYD:** My feeling, just so everybody will know, and I have  
30 said this to the guy who is running most of these trips, is  
31 that, if we're going to have intersector trading under the  
32 table, quote, unquote, legally around the law, why don't we do  
33 it for everybody? Let's have a free market in these fish, and I  
34 don't know why the intersector trading issue has not been more  
35 popular.

36  
37 I can tell you that I talk to a lot of recreational fishermen  
38 who would like to see intersector trading, and they would like  
39 to be able to buy and fish, just like you said, 500 pounds for  
40 my family over the year, and so that's -- I am not going to  
41 encourage you to do some motion, but I want you to understand  
42 that that's going on out there, if you didn't already know.

43  
44 **MR. VALENCIANO:** **The motion that I have was to explore the**  
45 **requirements of descending devices to reduce discard mortality.**

46  
47 **CHAIRMAN CAPLINGER:** Can you read that again? I'm sorry.  
48

1 **MR. VALENCIANO:** Explore the requirements of descending devices  
2 to reduce discard mortality.

3  
4 **MR. BOX:** To kind of interrupt, Rudy, just for a second, because  
5 I had a question, for anyone, in regard to discards and  
6 mortality, and I'm going to try to make this short, because it  
7 could go into something else.

8  
9 Assuming that all commercial activity goes on in federal waters,  
10 and also assuming -- What I'm hearing here is that almost 80  
11 percent of recreational catch is in state waters, and is that  
12 reflected in the adjustments for when it's allocated out to each  
13 sector that the rate of mortality would logically be greater on  
14 the commercial side than on the recreational side, or is that  
15 something that's already been addressed that I missed?

16  
17 **DR. CRABTREE:** That is built into the stock assessment and the  
18 release mortality rate.

19  
20 **MR. BOX:** The fact that a lot of the fish comes out of the  
21 state?

22  
23 **DR. CRABTREE:** It is much higher for the commercial fishery, and  
24 that's based, I think, more on the way the commercial fishermen  
25 fish and the observer studies that we've done.

26  
27 **MR. BOX:** Okay. What made me think of this is, in the state  
28 waters, I think we all agree that the fish has a greater chance  
29 of survival to be released, and I can't help but notice, and I  
30 have talked to other people about it, that, out on the market,  
31 in the finished market, when you go into the fish markets and  
32 what have you, you very rarely see big fish, and I think the  
33 recreational guys would be more likely to keep those, for  
34 whatever reason, but I am just wondering if there is any data  
35 that shows that, with the exception of maybe an observer on the  
36 boat, that the commercial guy -- If we're getting an equal  
37 allocation on the actual mortality of probably these big fish,  
38 in particular, and I understand about the twelve-inch limit for  
39 the commercial guys, so they don't want to throw it back, but  
40 I'm wondering, if they want to throw the bigger fish back, is  
41 there -- I guess where I'm going with this is I heard allocation  
42 review come up.

43  
44 I just wondered if this could be part of possibly getting the  
45 recreational guys some sort of a -- Without changing the whole  
46 scenario, getting the recreational fishermen maybe a little bit  
47 bigger slice of the pie, just based on some sort of review in  
48 regard to this.

1  
2 **DR. CALAY:** I believe that, currently, and I can look it up and  
3 be certain, but I believe that, currently, we're talking about a  
4 10 to 20 percent release mortality rate on the recreational  
5 sector versus 50 to 75 percent on the commercial sector.  
6

7 The stock assessment is already aware -- I mean, we are already  
8 provided with discard mortality estimates, and so it's already --  
9 - We know the discards from these fisheries, and we're applying  
10 a discard mortality, which is obtained usually from academic  
11 partnerships, and I think that the catch limit we're providing  
12 is really the landings that you can allow, and we're assuming  
13 that the discards are going to remain proportional to the  
14 landings within a given sector, and so, where you would have any  
15 kind of ability, maybe, to get a larger number of fish is if you  
16 could demonstrate that you can reduce the discard mortality in  
17 some way, even though your discard mortality has changed.  
18

19 **MR. BOX:** So the discards in shallow water and the discards in  
20 federal waters is already calculated into the --  
21

22 **DR. CALAY:** Correct.  
23

24 **DR. CRABTREE:** The statistic of 80 percent from state waters,  
25 that was the case, I think, in 2013 or 2014, and it varies a lot  
26 from year-to-year. For example, I'm sure last year, in 2017, a  
27 much higher proportion of the catch came from federal waters,  
28 because we had that forty-day federal season, and I'm sure, if  
29 we do these exempted fishing permits, or regional management, my  
30 guess is that's going to shift more effort back out into federal  
31 waters, and so it's fluid, and that makes it difficult to make  
32 real management changes, because it's constantly changing. It's  
33 not stable.  
34

35 **DR. FROESCHKE:** The 80 percent was based on the estimate in the  
36 2017 recreational season that Nick and I put together prior to  
37 the additional supplemental season, and so, if it had went on as  
38 it was originally established, that's what was estimated.  
39

40 One other thing, just while I've got it, but I guess I would  
41 just like some feedback, so I could provide the council on your  
42 behalf, but the feeling that I'm getting is that, the concepts  
43 of changing bag limits and size limits and things, you're not  
44 really interested in those kinds of shifts.  
45

46 **AP MEMBER:** I am.  
47

48 **DR. FROESCHKE:** Okay, and so we talked about those last time.

1 If you have some more general recommendations or specific  
2 recommendations, it would be great to get those on the record.

3  
4 **CHAIRMAN CAPLINGER:** We have a motion to explore the  
5 requirements of descending devices to reduce discard mortality,  
6 and I think -- I will just speak as a recreational angler. I  
7 got one of these devices as a test program, and we've been using  
8 it, and it's a Seaqualizer. You set it to your water depth and  
9 drop the fish down, and it's perfect. We have never had a  
10 problem, and we've never seen a fish float up.

11  
12 I think that, as recreational anglers, that we've always been  
13 willing to self-regulate ourselves, and we should be willing to  
14 require these on boats, on recreational boats, even though the  
15 discard is not as great, 10 to 20 percent, but it's still --  
16 That's significant, and, just as a matter of ethics, we should  
17 try and reduce fish mortality at every chance we get.

18  
19 I am absolutely in favor of this, and my question to you all is  
20 should this be mandatory, should this be suggested, and I'm in  
21 favor, personally, of making this mandatory, as long as the  
22 device isn't hundreds of dollars or cost prohibitive, but I  
23 think it is a good thing to do, as recreational anglers.

24  
25 For that point, to that point, if the commercial discard is 40  
26 or 50 percent or worse, those guys can do their part too and  
27 sink some of these fish back down without a big deal, and I  
28 would suggest to the council that, as a fishing group entity,  
29 commercial and recreational, we should be working towards zero  
30 discards. We as recreational anglers will certainly take a  
31 leadership role, but commercial anglers should feel some  
32 responsibility to this as well. Shannon.

33  
34 **DR. CALAY:** Just so we're clear, what we actually use in the  
35 stock assessment is that, in the eastern Gulf of Mexico, prior  
36 to venting, the recreational fishery had a release mortality  
37 rate of 21 percent. After the venting requirement, it was  
38 reduced to 10 percent. It's very similar results in the west.

39  
40 For the commercial vertical line fishery, before venting, it's  
41 74 percent mortality. After venting, it's 55 percent. In the  
42 west, it was even higher. It was 87 percent mortality prior to  
43 venting and 74 percent after. The longline fishery also had 74  
44 percent mortality prior to venting and 55 percent afterwards,  
45 and it was higher in the west.

46  
47 These numbers are all in the stock assessment report, but we  
48 have already considered the fact that the recreational fishery,

1 because it predominantly in shallower water, and the handling  
2 time of the fish is much shorter, and the fish are not remaining  
3 on deck for a long time prior to venting, for example, but the  
4 release mortalities are substantially smaller in the  
5 recreational sector.

6  
7 These numbers were reevaluated at the recent data assessment  
8 workshop for red snapper, and they may have changed somewhat,  
9 but the general magnitudes are similar, and so the challenge  
10 would be to reduce these mortality rates even further in the  
11 recreational and commercial sectors.

12  
13 **CHAIRMAN CAPLINGER:** What is the difference in us catching over  
14 our limit and being penalized and the commercial fishermen  
15 killing a mortality rate of 70 or 80 percent and then having no  
16 issues whatsoever, no ramifications?

17  
18 **DR. CALAY:** I am going to try and answer this correctly, and,  
19 again, I will call on Roy and John and others to add, but we are  
20 asked to produce ACLs in just landed number, and so the  
21 assumption is that we're not directly managing discards. What  
22 we're assuming then is that the magnitude of the landings and  
23 the discards are proportional.

24  
25 As you allow the fishermen to catch more fish, they will also  
26 discard more fish, and that's the assumption we make. If you  
27 restrict landings, you will also reduce discards, but the ACL is  
28 landings only. It's actually what the fishermen are allowed to  
29 land, and so the stock assessment model counts the dead fish.  
30 All removals are counted in the stock assessment model, and the  
31 allocation is applied to the landed fraction, and so we're  
32 basically saying that the --

33  
34 **CHAIRMAN CAPLINGER:** The dead fish, there is no ramifications  
35 for killing fish, because you don't bring them in.

36  
37 **MR. KENNEDY:** Commercial could bring more in if they didn't kill  
38 as many with the dead discards.

39  
40 **DR. CALAY:** Right.

41  
42 **MR. KENNEDY:** That's their problem. They're killing more than  
43 we are incidentally.

44  
45 **DR. CALAY:** I am not entirely certain how it interplays with  
46 allocation. It is true that, if you killed less fish, you could  
47 catch more fish, but I'm not sure how it plays out when you look  
48 at the allocation, because the allocation is applied just to the

1 landed fraction.

2  
3 **DR. CRABTREE:** Don't confuse the mortality rate with the number  
4 of dead discards. The mortality rate in the commercial fishery  
5 is higher than in the recreational, but I think the number of  
6 discards in the recreational fishery is much higher than in the  
7 commercial fishery.

8  
9 The IFQ program has been effective at reducing discards, I  
10 think, in the commercial fishery, by and large. The biggest  
11 problem we still have is in the eastern Gulf with the grouper  
12 fishery, where some of those guys don't have enough IFQ shares  
13 to cover the incidental catch of red snapper that they have. I  
14 think that's gradually getting better over time, but it's not as  
15 good as we want, but it's not just the rate that counts. It's  
16 the number of discards.

17  
18 **MR. TURNER:** May I make a friendly amendment? The motion should  
19 be to explore the "requirement", and take the "s" off, of  
20 descending devices to reduce discard mortality in all sectors,  
21 and that includes commercial, headboat, and recreational.

22  
23 **CHAIRMAN CAPLINGER:** Yes, sir. We have a question.

24  
25 **DR. KAI LORENZEN:** We are doing a study on barotrauma mitigation  
26 measures, and one of the results is that venting is still much  
27 more commonly used than descending, and so about 80 percent of  
28 barotrauma mitigation uses venting tools rather than descenders,  
29 and so there is some confusion, I think, about the usefulness of  
30 venting, because there was a venting tool requirement that was  
31 taken off the books, and people see descenders to be more  
32 cumbersome and more expensive, and they perceive a stronger  
33 social norm to use venting.

34  
35 One of the things, and I'm bringing this up because I think, if  
36 you only make descending devices mandatory, you may actually  
37 lose overall barotrauma mitigation if people reduce venting, but  
38 don't adopt descending. I would suggest to consider moving  
39 descending or venting.

40  
41 **MR. DYLAN HUBBARD:** On that same note, as a partyboat operator,  
42 it's very difficult to use descending devices. We have four  
43 charter boats and two partyboats, and, on a six-pack charter  
44 boat, descending devices are realistic, as long as there's not  
45 sharks around. If there is sharks around, venting becomes  
46 highly regarded as a better option, because you can vent the  
47 fish and throw it away from the shark and it's able to escape.  
48 With a descending device, you're basically just feeding the

1 sharks and increasing dead discards.  
2  
3 In a six-pack atmosphere, without sharks, descending devices are  
4 regarded as a better option, in our opinion, in our experience,  
5 but, in a partyboat setting, it is unrealistic, and it would  
6 increase dead discards, because a venting tool is easy.  
7 Everybody has got one, and it's easy to vent a fish and let it  
8 escape quickly, whereas, using a descending device, you're going  
9 to have to have a rod and -- With a descending device, you're  
10 going to have to stop fishing and walk that fish to that rod and  
11 hook it up.

12  
13 On a partyboat, when you're on a good bite of fish, these  
14 endangered red snapper, we can't get away from them. There is  
15 basically sixty of them on deck, and it just simply won't work.  
16 You can't descend that many fish quick enough before they pass  
17 away, and so venting, I would agree. Venting tools being a part  
18 of this would be very important as an option.

19  
20 **CHAIRMAN CAPLINGER:** I don't think we're saying not to vent. I  
21 think if you are more comfortable and you think that's a better  
22 alternative, then absolutely. The bottom line is we're trying  
23 to reduce dead fish. All I'm saying is that these descending  
24 devices work, and it's new technology. When applicable, they  
25 work great. The question is should we require these or should  
26 it be voluntary, but we ought to use different techniques to get  
27 the fish back down safely.

28  
29 **MR. HUBBARD:** Requiring them on a vessel would not be a bad  
30 thing. I think that would be a wise thing, but I would just  
31 caution the fact that it be very important, especially when  
32 recommending to the council, to include venting as an option.

33  
34 **CHAIRMAN CAPLINGER:** Sure. Okay. Sir.

35  
36 **MR. GARY JENNINGS:** I would suggest that the council look at the  
37 credit that the west coast council gave to recreational anglers  
38 for using descending devices with I think it was rockfish, and  
39 they were able to increase the recreational allocation by the  
40 use of descending devices.

41  
42 **CHAIRMAN CAPLINGER:** That would be one of the goals, yes,  
43 absolutely.

44  
45 **MR. TURNER:** After the word "devices", put "and/or venting".

46  
47 **MR. LANDGRAF:** I hate to nitpick the statement, but should the  
48 word "feasibility" be in there, to explore the feasibility,

1 rather than "requirements"?

2

3 **MR. TURNER:** We want it to be required though.

4

5 **MR. LANDGRAF:** Okay. Fair enough.

6

7 **CHAIRMAN CAPLINGER:** Is that right, everybody, that we want --

8 Yes, sir.

9

10 **MR. HUBBARD:** I apologize that I keep interjecting, and I'm not

11 on the AP, but, as far as feasibility, what we were discussing

12 earlier, what you guys were discussing earlier, was the

13 requiring that one be onboard a vessel, and so having it onboard

14 the vessel -- Just because there is a shark underneath you and

15 you want to use venting, it doesn't mean that you can't require

16 it to be onboard the boat. I think it should still be on the

17 boat. That way, if there is not a shark there, you can use a

18 descending device.

19

20 **MR. LANDGRAF:** I was more talking about what Charlie mentioned

21 about how costly are these devices, et cetera.

22

23 **MR. TURNER:** \$69.95. That's what one costs, retail.

24

25 **CHAIRMAN CAPLINGER:** Are we good with this motion? Do we have a

26 second? We have a second. **All in favor; any opposition. The**

27 **motion passes.**

28

29 **MR. TURNER:** I have a motion.

30

31 **CHAIRMAN CAPLINGER:** Yes, sir.

32

33 **MR. TURNER:** I would like for us to recommend to NOAA that they

34 find a way to give the states authority -- We have, in Texas, a

35 thing called the shrimp buyback program, the shrimp license

36 buyback program.

37

38 I would like us to recommend to NOAA that they give the states

39 the opportunity to do the same thing with commercial quota.

40 It's readily available, and they could take it and buy it,

41 whoever it was, whether it's, I don't know, CCA or some other

42 group, and then reallocate it or take it out of the market

43 altogether, whatever would best serve the fishery.

44

45 **AP MEMBER:** As a management tool.

46

47 **MR. TURNER:** Right, and I know that I just heard a minute ago

48 that somebody -- I think Dr. Crabtree mentioned that they talked

1 about it a few years ago, and it didn't go over, but it worked  
2 in Texas, as far as the shrimping, and that's one of the things  
3 that probably helped the redfish stock, because of all the  
4 bycatch from the shrimpers, particularly with regard to redfish  
5 and trout and so forth for the bait shrimpers, or the bay  
6 shrimpers. The motion is for commercial quotas to --

7  
8 **MR. BOYD:** You want to buy back the permits, or do you want to  
9 buy back the quota?

10  
11 **MR. TURNER:** Well, the poundage or both, either one.

12  
13 **DR. FROESCHKE:** What would happen with the quota once it was  
14 bought by the state?

15  
16 **MR. TURNER:** Then the state would determine what to do with it.

17  
18 **DR. FROESCHKE:** So the state would have to basically become a  
19 quota holder?

20  
21 **MR. TURNER:** Well, it doesn't necessarily have to be the state.  
22 It could be, like I say, an organization or a conservation  
23 group, whatever.

24  
25 **DR. CRABTREE:** I think what you're doing is asking the council  
26 to revisit intersector trading.

27  
28 **MR. TURNER:** I don't know, because I'm not that familiar with  
29 it.

30  
31 **AP MEMBER:** It could be just another management tool that a  
32 state could use.

33  
34 **MR. KENNEDY:** Boy, that's a slippery slope, because you would  
35 really have to be specific on the wording on that for what  
36 organizations or who may be able to buy the catch, because EDF  
37 may have enough money to buy it all, and nobody would ever go  
38 fishing. That may ultimately go that route.

39  
40 That may sound good to some, sure, but there are just so many  
41 possibilities there that I think it would be tough, is all I'm  
42 saying. It would be tough to figure that out.

43  
44 **CHAIRMAN CAPLINGER:** Go ahead, John.

45  
46 **DR. FROESCHKE:** I just had a quick question, but I think that  
47 you can already do this. Like a conservation group could buy  
48 quota today. I don't think the council has to do anything. In

1 order to fish it, you need a permit, but, if you're just  
2 interested in not using it, you could already do that.

3  
4 **MR. TURNER:** Well, again, the idea is to give the state or the  
5 entity the ability to utilize this sector, if you will, for the  
6 best use possible for the fishery and not just buy it and sit on  
7 it. There could be other things that it necessarily could be  
8 used for. I mean, they could use it as a non-profit and allow  
9 people to -- If states take over, which I think is like -- I  
10 don't think the chances of that, with a 75 percent necessity of  
11 a vote, is ever going to happen, but, if they did, then they  
12 would have that flexibility and the ability to do with it what  
13 they will.

14  
15 **DR. FROESCHKE:** I just want to try and understand your intent,  
16 so, when I pass that on, that I don't get it wrong, and so I  
17 think I understand what you're trying to say.

18  
19 **DR. DIAGNE:** In line with what John just mentioned, if the maker  
20 of the motion would just elaborate a little bit to give a way to  
21 the states to buy, I guess, commercial quota and utilize it or  
22 fish it or whatever, but just grant, I guess, that additional  
23 authority, quote, unquote.

24  
25 **MR. TURNER:** It's creating the non-consumptive value.

26  
27 **DR. DIAGNE:** For the option value, the bequest value, all of  
28 those, you can do it today.

29  
30 **MR. MARQUEZ:** Do we want a motion that really is targeting the  
31 states to do this? I mean, we seem like we're putting the cart  
32 before the horse when we're talking about state management, and  
33 that hasn't really happened yet. If that was in place, then it  
34 seems to maybe this would be more appropriate, but we really are  
35 getting at the question of intersector trading, if we want to  
36 broaden this up more, rather than the focus being on the states.

37  
38 **MR. WILLIAMSON:** I want to reiterate my objection to this whole  
39 idea. You've got a public resource there that, if it is  
40 something that the recreational community has a need for, then I  
41 think there should be a concerted effort for a reallocation of  
42 this public resource to the public, which the private sector is,  
43 and not a commercial sector.

44  
45 The idea of the states going out and buying a public resource  
46 with my tax dollars offends me greatly. I am offended by the  
47 give-away program of the council to endow a few, initially,  
48 without any program to redistribute it to the other commercial

1 folks who would like to have some of it, and it's held by a few  
2 folks. I know I'm singing to the choir here, but I just wanted  
3 to voice my opinion and put it on the record that this motion,  
4 to me, it just makes no sense. Thank you.

5  
6 **CHAIRMAN CAPLINGER:** That is a great point. That is a great  
7 point, and we have already given the go-ahead to talk about  
8 reallocation, and we've already made that statement, haven't we,  
9 John? Isn't that what you're going back with, that we have an  
10 allocation issue and that needs to be readdressed?

11  
12 **DR. FROESCHKE:** Yes, you made an earlier motion about that, if I  
13 recall.

14  
15 **CHAIRMAN CAPLINGER:** Okay, and so that is already there. I  
16 think something like this though, Troy, could at least -- It is  
17 another tool, and it is not ideal, because it is a public  
18 resource, and those individuals who have been given it don't pay  
19 any royalties, like you would timber or minerals or anything  
20 else.

21  
22 **DR. FROESCHKE:** Okay, I guess you did not make a motion yet on  
23 revisiting allocation.

24  
25 **CHAIRMAN CAPLINGER:** Okay. Well, that will be next. Let's go  
26 back to the motion that Mark put up. Does anyone -- Can we vote  
27 on this? Is there a second for this, this intersector trading?  
28 No? We do not want to pursue this, and is that right? Okay.  
29 That motion does fail.

30  
31 We do need a motion to -- Kellie, why don't you help us with  
32 this? A motion to review the historic allocation between the  
33 commercial and recreational sectors.

34  
35 **MS. RALSTON:** Maybe we could say for the council to reconsider  
36 red snapper allocations and incorporate a discussion of a broad  
37 suite of factors in their evaluation, and so the implication  
38 there is it's broader than it was with the previous Amendment 28  
39 conversation. Feel free to wordsmith that.

40  
41 **CHAIRMAN CAPLINGER:** Assane, yes, sir.

42  
43 **DR. DIAGNE:** Just a question, if I may. If you guys could help  
44 in listing some of those factors, that will be great, I think,  
45 to make this more specific, if you have some of those factors in  
46 mind.

47  
48 **MS. RALSTON:** I think if you could look at social, economic,

1 historical catch, and, if anybody else has any other ideas, I'm  
2 happy to include those, but I just remember -- Unfortunately,  
3 Roy is in the other room, but the ruling on the lawsuit had to  
4 do with the fact that there were certain things that weren't  
5 considered and fully discussed, and so perhaps -- She was  
6 specifically referring to the fact that the commercial harvest  
7 was constrained under the IFQ program and that the council  
8 didn't give that full consideration. I know there's some  
9 disagreement about how that might play in, but, in order to  
10 avoid future concerns and conflicts, I think that does need to  
11 be addressed.

12  
13 **MR. BROWN:** We could look at the change in effort, the change in  
14 how many commercial fishermen are out there today versus  
15 recreational fishermen when the data was originally looked at.

16  
17 **MS. RALSTON:** Yes, and it seems to me that the big component is  
18 really looking at that historical basis and then also updating  
19 it with current information as far forward as we possibly can,  
20 and so I don't know how you capture that.

21  
22 **MR. MILLER:** I have a question, just for my knowledge, I guess.  
23 How much of the commercial fish are sold outside of the five  
24 Gulf states? Does anyone know?

25  
26 **DR. FROESCHKE:** I don't know. I don't know that there are many  
27 dealers outside of the Southeast Region. You have to sell a  
28 commercial fish through a licensed federal dealer. Do you mean  
29 that is consumed in Chicago?

30  
31 **MR. MILLER:** Yes, and it's a federal resource. Someone in  
32 Chicago can order a red snapper, right?

33  
34 **DR. FROESCHKE:** Is Jason Delacruz still here?

35  
36 **MS. KAREN HOAK:** No, he's gone.

37  
38 **DR. FROESCHKE:** I think he was the one -- They had those tag  
39 things, where eventually the tag followed the fish all the way  
40 to market, and so, when you got your meal, you could -- Gulf  
41 Wild is what it was called. You could scan it with like a QR  
42 code and see where that fish was caught and all that, and so it  
43 seems like the opposite would also be true, that you could track  
44 where it eventually ended up, but I don't have that information.

45  
46 **MR. BOYD:** I think it depends on which fish house they go into.  
47 I know that there is a large operation in Florida who sells  
48 mostly up the east coast, and I know our guys, our commercial

1 guys, in Texas sell quite a bit to Sysco, a food service  
2 company, and then also they sell a lot locally into smaller  
3 grocery stores, and so I think it has something to do -- I think  
4 Harlan sells mostly to restaurants in the New Orleans area,  
5 doesn't he? Roy, do you know about that?

6  
7 **DR. CRABTREE:** I think Harlan mostly sells catfish. I don't  
8 know, but we might have some data on where red snapper goes, but  
9 I am not sure if we do or don't.

10  
11 **MR. BOYD:** I think it has to do a lot with where they offload  
12 those fish and then where they go.

13  
14 **MR. MICHAEL MCDERMOTT:** I just wanted to get in line with the  
15 motion. I know we're still hashing this one over, but I think  
16 we need to make some motion to fast-track the Snapper Check and  
17 Tails and Scales data to be accepted. I know, when I reviewed  
18 the PowerPoints that were in our materials, there was like a  
19 200,000-pound disparity in the Tails and Scales data and the  
20 MRIP data, and there was like a million-pound disparity in the  
21 Snapper Check and the MRIP data for Alabama, and so that will  
22 get us some fish right there, if we can get that fast-tracked.

23  
24 **CHAIRMAN CAPLINGER:** All right. Let's vote on this motion.

25  
26 **MR. KENNEDY:** Can I add one more thing? The most important  
27 thing they need to consider is the increased participation in  
28 the recreational sector here when they're reallocating, because  
29 the commercial sector is fixed participation, and the  
30 recreational sector is ever-increasing, and that's why we need  
31 reallocation consideration.

32  
33 **AP MEMBER:** I agree. That's why we're here, right?

34  
35 **CHAIRMAN CAPLINGER:** Can we add that to the motion?

36  
37 **MR. WILLIAMSON:** I would make a friendly amendment to this  
38 motion to the effect of reconsider red snapper allocation,  
39 including all relevant factors, not limited to the following.  
40 Including, but not limited to.

41  
42 **CHAIRMAN CAPLINGER:** It's in there. Including all relevant  
43 factors, but not limited to the following. Is that right?

44  
45 **MR. WILLIAMSON:** Yes.

46  
47 **CHAIRMAN CAPLINGER:** Is that correct?

48

1 **MR. WILLIAMSON:** After "allocation", change that to "considering  
2 all relevant factors".

3  
4 **CHAIRMAN CAPLINGER:** Okay. Do we have a second on this? We  
5 have a second. **All in favor; any opposition. The motion**  
6 **passes.**

7  
8 To Michael's point about getting each state up to speed and  
9 getting their management plan or management tools certified,  
10 should we make a motion to the Gulf Council asking them to make  
11 their best efforts to work together to come up with a plan for  
12 state management of red snapper, because my fear is that they're  
13 going to get so caught in the politics of my snapper versus your  
14 snapper and your line versus my line and all that that we're  
15 going to have a mess. Is that something that we should --

16  
17 **MS. CAMILLA SHIREMAN:** You have a motion. Your first motion was  
18 to support state management of all recreational red snapper.  
19 Basically, it's a statement of support.

20  
21 **CHAIRMAN CAPLINGER:** Sure.

22  
23 **MS. SHIREMAN:** If you want to reword it -- It was to support  
24 state management of all recreational red snapper.

25  
26 **MR. MCDERMOTT:** The state management and the data collection  
27 methods, like the Snapper Check and the Tails and Scales, are  
28 two separate things, as far as I understand it, and so they  
29 could fast-track the data collection methods and spend as much  
30 time as they want debating the --

31  
32 **MR. LANDGRAF:** Your motion, your point, is more specific to your  
33 state, because it's the state with the most distance between  
34 each of the two datasets.

35  
36 **MR. MCDERMOTT:** There is a big disparity in Mississippi and  
37 Alabama. It's a million pounds in Alabama, and it's 200,000  
38 pounds in Mississippi. They said we harvested like 275,000, and  
39 Tails and Scales is saying we harvested 75,000 pounds, and so  
40 that's like 1.2 million pounds between Mississippi and Alabama.

41  
42 **MR. LANDGRAF:** Your statement is around closing the gap between  
43 the two, to have some consistency in the numbers.

44  
45 **DR. CRABTREE:** If I could, one year's estimate from Tails and  
46 Scales, though, was in fact higher than the MRIP estimate, and  
47 so the catch estimate from Mississippi is extremely uncertain,  
48 and so I would be amazed if they weren't -- That doesn't mean

1 that they're giving different answers. We, effectively, don't  
2 estimate a specific catch for Mississippi that's usable, because  
3 there is so few fish caught in Mississippi.

4  
5 **MR. KENNEDY:** Did you say the state plans should be approved  
6 soon, this year?

7  
8 **DR. CRABTREE:** Yes, we expect that Tails and Scales and Snapper  
9 Check will likely be certified sometime during the year, but I  
10 don't know when.

11  
12 **CHAIRMAN CAPLINGER:** Yes, John.

13  
14 **DR. FROESCHKE:** So two points. One, I think it would be very  
15 helpful, in terms of the state management, if you had a  
16 recommendation about how you thought the council should go about  
17 doing the allocation and whether it should be a landings-based  
18 or something else or a long time series or some of those  
19 options, if you had some thoughts about what you thought would  
20 be the best way, and that's where the council has really  
21 struggled.

22  
23 The other point is I'm just going to ask Shannon -- Remember,  
24 when landings are changed historically, say that you revise and  
25 say we caught 200,000 pounds less in some state, it needs to go  
26 through the stock assessment to figure out how many days and  
27 things you would get in a season, because that really -- If you  
28 caught less, the fishing mortality is the same, and so it must  
29 mean that the model is going to estimate the productivity is  
30 less, and could you just sort of elaborate on that, just so  
31 everyone is clear?

32  
33 **DR. CALAY:** That is a very -- People often assume that, if the  
34 landings are in fact lower than what is in the stock assessment  
35 model, that means that they will get more fish. Actually, in  
36 general, the opposite is true. If the landings are in fact  
37 lower, when you put that into the model, it typically estimates  
38 that the standing stock was lower or the productivity of the  
39 stock is lower, and that usually leads to catch recommendations  
40 that are in fact lower than what you had before.

41  
42 It's a counterintuitive effect of stock assessments that the  
43 higher -- I don't want to lead how people could misinform port  
44 samplers, but, in general, the higher the removals, the more  
45 productive the stock must be, to some extent, and so those  
46 removals actually scale your catch recommendation, to some  
47 extent. I mean, I am oversimplifying, because there are always  
48 situations where the stock is depleted and requires a recovery

1 plan, but it's not a simple relationship, where, if the removals  
2 are lower, then you can expect the catch limits to increase.  
3 It's not that simple.

4  
5 **DR. CRABTREE:** If, for example, you're going to use catch  
6 history to decide the state-by-state allocations, if you believe  
7 Alabama's catches have been overestimated, then you need to  
8 correct those back in time, or you're going to over-allocate  
9 fish to Alabama, and so that's the question. Does Snapper Check  
10 -- Is the reality that their catches have been lower all the way  
11 back in time, or is this something that just happened?

12  
13 I don't think we know the answer to that, but it plays into how  
14 all of this works, but you can't create fish just by switching a  
15 survey from one method to the next. That doesn't put any more  
16 fish in the water.

17  
18 **CHAIRMAN CAPLINGER:** On our third task, improve fisheries data  
19 collection, do we want to say something like recreational  
20 anglers would -- We encourage the Gulf Council to look at ways  
21 to electronically or to voluntarily electronically report fish  
22 or somehow we are willing to look at any method of improving the  
23 data collection, so that the modeling and stock assessments can  
24 become more accurate, or is there something that we should say  
25 in support of data collection, that we're willing to take this  
26 on, as recreational anglers?

27  
28 **MR. MILLER:** I may have missed it earlier, but, the ten-million-  
29 dollar effort that's undergoing, that's going to, obviously,  
30 play into this. Is there any input that we can give to that or  
31 recommendations or lobby for additional funding for it? Is  
32 there some discussion on that?

33  
34 **CHAIRMAN CAPLINGER:** I think it's in progress.

35  
36 **DR. CALAY:** Let me just tell you that we think, just from the  
37 stock assessment perspective alone -- The objective here is to  
38 create a point estimate of the absolute magnitude of abundance  
39 of red snapper, and that is a useful piece of information,  
40 because we can fit that to the stock assessment. It will help  
41 us reduce uncertainty.

42  
43 There is also information that Roy was discussing about maybe  
44 there will be tagging that occurs and other things that we can  
45 achieve out of that ten-million-dollar effort, but I think that,  
46 largely, there is already a steering committee for that, and it  
47 might be hard, at this point, to change the direction of how  
48 that's headed, but there is always a need for additional

1 research.

2  
3 I do think it would be helpful to understand that, as we  
4 increase the regulatory complexity, there is a need to enhance  
5 our fishery-independent sampling information, and so enhance  
6 fishery-independent age composition and length composition and  
7 indices is helpful.

8  
9 You also need to realize that, if you want to essentially  
10 stratify this assessment into five areas, that does actually  
11 increase the amount of information you will need to conduct a  
12 similar stock assessment across all five of those areas, and so  
13 now maybe you're looking at whether things like reproduction  
14 differ between these areas, and that's a very difficult question  
15 to address correctly. That's an expensive question to address.

16  
17 This state management program is likely to incur additional  
18 costs to maintain the current complexity and the current quality  
19 of the stock assessment. In order to do that, multiplied by  
20 five, you're going to have to -- There will be additional  
21 resources required. If you want, I can try to give you some  
22 kind of a list of what I think are the highest priority items,  
23 but --

24  
25 **CHAIRMAN CAPLINGER:** Electronic reporting or electronic data  
26 collection, something that an angler comes into the dock and  
27 says, okay, I've caught -- Like iSnapper.

28  
29 **DR. CALAY:** One thing that is very -- One of the things we feel  
30 about the stock assessment is the least accurate part of the  
31 information is our information about discards, the magnitude of  
32 discards, how large are the discards. How big are these fish?  
33 How old are these fish? Any information that we can obtain from  
34 the fishermen about discarding is helpful. We have very small  
35 observer programs for these discard estimates, and so that would  
36 certainly be very helpful.

37  
38 **MR. DUVALL:** As far as the Snapper Check, two of the last three  
39 years, my boat has been the most reported in Alabama, and so we  
40 report every trip we make, and I think it's very important, and  
41 it's easy to do. It takes like -- We're idling into the dock,  
42 and we get on our phone and we do the report, and it does ask  
43 for your discards, how many did you discard dead and that type  
44 of information, and I think, as recreational anglers, it's our  
45 responsibility to provide the data, and so anything we can do  
46 like that to encourage or require, whatever you want to call it,  
47 to get good information, we need to recommend that, I think.

48

1 **CHAIRMAN CAPLINGER:** I agree, and it engages the fishermen, and  
2 I think, if they feel like they're a part, then they will be  
3 more willing to help, more willing to report.

4  
5 **MS. RALSTON:** I just threw this together to see what you all  
6 think about this. **To request that the council explore voluntary**  
7 **angler reporting options of harvest and discards and how that**  
8 **information can best be incorporated into stock assessments and**  
9 **management decisions.**

10  
11 **MR. LANDGRAF:** Is that for all states or with applicable states,  
12 like Louisiana has the LA Creel, which is already an approved  
13 method?

14  
15 **MS. RALSTON:** I would say it's for all states. It would be  
16 separate from the state reporting, and so you would be looking  
17 at some sort of a phone app that you could voluntarily report  
18 your information.

19  
20 As Roy said, what we need to understand is how that voluntarily-  
21 reported data comes in and how do we calibrate that with the  
22 harvest information that we're getting from the state programs,  
23 that we're getting from MRIP, and then how can we take that and  
24 use it, whether it's to inform discard mortality estimates,  
25 whether it's to kind of make our estimates of harvest more  
26 robust, and those sorts of things.

27  
28 **CHAIRMAN CAPLINGER:** All right. Do we have a second? We have a  
29 second. **All in favor; any opposition. The motion passes.** We  
30 have fifteen minutes to get your motions in. We're running out.

31  
32 **MR. KENNEDY:** I will make one. Don't start writing it yet, but  
33 just a little background. We went through many years of  
34 decreased creel limits on red snapper, and it has resulted in  
35 increasingly-short seasons, and so that's counterintuitive.  
36 It's not what they thought would happen.

37  
38 You think, if you reduce your creel limit, you're supposed to be  
39 able to fish longer, but it doesn't work like that, and so, at  
40 our last -- Maybe at our last panel meeting, or maybe the last  
41 council meeting, Dr. Crabtree suggested that, if the stock gets  
42 fished down a little bit, then the size of the fish would go  
43 down and we wouldn't reach the quota as much, and that's one  
44 thing to consider.

45  
46 **The other thing to consider is, if we increase the creel limit,**  
47 **perhaps we'll protect more of the bigger fish, and so maybe we**  
48 **can ask the council to consider increasing the recreational**

1 creel limit on red snapper say to three fish with one fish over  
2 twenty inches, and the other two fish have got to be under  
3 twenty inches.

4  
5 That way, I don't think our pound catch rate would go up, but  
6 perhaps that would give us a longer season, something in that  
7 regard, going the total opposite direction that we keep going,  
8 and so ask the council to consider a three-fish recreational bag  
9 limit with a two-fish twenty-inch maximum with one fish over  
10 twenty inches.

11  
12 **CHAIRMAN CAPLINGER:** I have no idea how that would work.

13  
14 **MR. KENNEDY:** Maybe it will go in the other direction.

15  
16 **CHAIRMAN CAPLINGER:** A comment from me would be it would hard to  
17 catch any under twenty inches where I fish, but I tell you that  
18 you bring up a good point, and something we discussed earlier,  
19 and that is, if there was a way that we had a slot and that we  
20 maybe either did not keep the big fish, or it would be one per  
21 boat, instead of you going out and catching six twenty-five-  
22 pound snapper, or twenty-pound snapper, and one big fish, and  
23 you focus on smaller fish, or a smaller size limit, and maybe  
24 you just kept one to bring back to the dock.

25  
26 I don't think there is any -- The meat quality of those big fish  
27 is not there, and to bring back ten or twelve of these big fish,  
28 I just think it's just -- The signal is kind of ethically poor.

29  
30 **MR. KENNEDY:** It seems like the average size has gotten close to  
31 ten pounds, and so, basically, that means a person's limit is  
32 two ten-pound fish, and so each person brings twenty pounds in.  
33 Well, the idea is to fix it so that you make people bring in two  
34 three-pounders and one ten-pounder. You're bringing back  
35 sixteen pounds instead of twenty pounds, and that train of  
36 thought might fix it so that we get more days, being that the  
37 other train of thought is continually decreasing our limit  
38 results in fewer days.

39  
40 It doesn't have to be twenty inches. It can be twenty-four  
41 inches, but I just want to force people to bring less pounds in,  
42 and maybe that will get us more days, because, in the stock  
43 assessment deal, we can't win.

44  
45 I am hearing, both options, we're fouled. If we catch more  
46 pounds, great, the fishery is thriving, but we reach our quota  
47 too quick, and we get less days. If we catch less pounds for no  
48 apparent reason, that means the fishery is stressed, but we

1 don't reach our quota as quick, and so we should get more days,  
2 but we might not, because, if the fishery is stressed, then the  
3 stock assessment is going to be worse.

4  
5 What we have to do is figure out a way to catch less pounds, but  
6 for a reason, so that we don't get tagged with the stock is  
7 stressed and making us catch less pounds.

8  
9 **CHAIRMAN CAPLINGER:** Shannon, what do you estimate when it's a  
10 two-fish limit and you put that into the model? What size fish  
11 are you estimating that each recreational angler brings in? I  
12 mean, is that a six-pound fish or --

13  
14 **DR. CRABTREE:** The average fish size differs depending on where  
15 you are, but I think that the average has been around eight  
16 pounds or something like that. It varies depending on where you  
17 are, but I think the average, overall, is somewhere in the  
18 neighborhood of eight pounds. It varies from year-to-year.

19  
20 **MR. KENNEDY:** But it's growing, it seems like, every year,  
21 right?

22  
23 **DR. CRABTREE:** I wouldn't say every year, but the general trend  
24 over the past decade has been up, but it's different on charter  
25 boats, and it's different on headboats, and it's different on  
26 private boats. It's different east versus west. It's based on  
27 fish that are actually measured dockside by the state people who  
28 do the dockside intercepts.

29  
30 **MR. LANDGRAF:** My comment, I actually, personally, I like that  
31 idea of increasing the creel limit.

32  
33 **MR. KENNEDY:** Do something out of the box that's opposite of  
34 what we've been doing.

35  
36 **MR. LANDGRAF:** Right. Well, I mean, I was born in a landlocked  
37 state and fished freshwater, and every lake that I ever went to  
38 had some kind of size limit or slot limit. Even on the coast,  
39 you've got trout limits, and so, to me, size limits are -- Even  
40 with snapper, as they are now, right? So having something like  
41 that between that sixteen and twenty or twenty-two --

42  
43 **MR. KENNEDY:** A minimum size limit, that just makes us upgrade  
44 and kill bigger fish, which is counterintuitive when you're  
45 trying to protect the species.

46  
47 **MR. LANDGRAF:** Maybe we don't actually put the size up there.  
48 Maybe that's something that more science can help justify.

1  
2 **MR. KENNEDY:** Yes, and we want to keep one big fish and the  
3 other one can be two little ones. I would put that out there,  
4 maybe, a three-fish bag limit with two small fish and one big  
5 fish, with sizes to be determined.  
6  
7 **MR. LANDGRAF:** To me, a seven or eight-pound snapper is the  
8 perfect fish, and it's --  
9  
10 **CHAIRMAN CAPLINGER:** Marcus, rather than say three-fish bag  
11 limit, do you want to say explore --  
12  
13 **MR. KENNEDY:** Increasing the current two-fish bag limit.  
14  
15 **CHAIRMAN CAPLINGER:** Yes, or explore a slot limit to see if --  
16  
17 **MR. KENNEDY:** Not a bonified slot limit. I don't want to say  
18 that we can keep three fish between twenty and thirty inches. I  
19 would like to see us be able to keep two fish, or three fish,  
20 under a certain size and one fish over that. I want to always  
21 allow somebody to keep that big one that's probably going to be  
22 put off dead anyway.  
23  
24 **MR. LANDGRAF:** In Louisiana, that's like our redfish. We have  
25 one over twenty-seven, and the other four are between sixteen  
26 and twenty-seven.  
27  
28 **MR. KENNEDY:** It's like the comment was made earlier. Nothing  
29 gets on people's goat worse than catching a really nice  
30 something-or-other and having to send it floating off,  
31 especially a big snapper.  
32  
33 **CHAIRMAN CAPLINGER:** When I say, "slot limit", it means that you  
34 could keep one or some amount above, but you don't have to keep  
35 all of them that size.  
36  
37 **MR. KENNEDY:** Yes, one big one and the rest of them little.  
38  
39 **CHAIRMAN CAPLINGER:** You shouldn't be encouraged to keep all of  
40 them that size. That's what you're inferring to.  
41  
42 **MR. KENNEDY:** Right now, we're forcing upgrading, and so doing  
43 this will take some of the pressure off of doing that.  
44  
45 **MR. MCDERMOTT:** I agree with the spirit of the motion that we  
46 need to do something different. I think I said it, the first  
47 time we met, that, if we continue in this model, you're going to  
48 catch your limit from the couch, and that's true, because you

1 are assigned a certain -- There is too many assumptions in there  
2 and so, obviously, we're going to catch over our limit, but the  
3 only concern I have about this is possibly, possibly, trading  
4 some of the smaller fish dead discards for now larger dead fish  
5 discards, and that's all. That's my only comment on that.

6  
7 **MR. LANDGRAF:** That was the point that I was going to make.  
8 Aren't you going to increase your discard problem by having a  
9 slot?

10  
11 **MR. KENNEDY:** I doubt it, but that's why I said I don't want a  
12 slot limit. One of any size that's outside the slot --

13  
14 **MR. LANDGRAF:** Are you going to throw away, throw back, three  
15 ten-pounders trying to get the other two?

16  
17 **MR. KENNEDY:** No.

18  
19 **MR. LANDGRAF:** So you can keep them all?

20  
21 **MR. KENNEDY:** Like I said, currently, the system ain't working.  
22 We made that same argument against the current deal. I've just  
23 got to do something, because we've got new problems that they  
24 ain't even thinking about, and I hate to even mention them to  
25 them, but we're training sharks and porpoises to come to boats  
26 now to eat our fish when we throw them back, at least off of  
27 Alabama, inside of a hundred foot, where the fish have the best  
28 chance to live.

29  
30 We have maybe five minutes to get our fish and then leave,  
31 because the porpoises come. If you've got a slow boat, they  
32 will follow you to the next spot, and the same thing with the  
33 sharks. I can't believe we're training sharks, but I think  
34 we're doing that too, because they will sit there, and I don't  
35 care if the fish is half dead or alive, but the things eat them,  
36 and so we've just got to do something different.

37  
38 I say increase it over two, but I just want it over two, where  
39 we can keep three or four, and then all of them except one that  
40 we keep will be the smaller version, and then one will be the  
41 bigger version, and I don't think that we're going to increase  
42 our discards or anything significantly. They will do the number  
43 crunch on it, and no telling what their number crunch will come  
44 out to be, but at least it will be different than what it has  
45 been, going in the total opposite direction, because what  
46 they've been doing is resulting in an increasingly small season.

47  
48 **CHAIRMAN CAPLINGER:** All right. Do you want to take a stab at

1 this? You've got two minutes.  
2  
3 **MR. BOX:** Charlie, can I say one thing? First, this is a slot  
4 limit, because it's the minimum, and you said you didn't want a  
5 slot.  
6  
7 **MR. KENNEDY:** A slot limit plus an over.  
8  
9 **MR. BOX:** The slot is the minimum, whatever is legal, and you're  
10 creating the upper end, and only one over that, and so it's a  
11 slot.  
12  
13 **MR. KENNEDY:** Yes, a slot plus an over, yes.  
14  
15 **MR. BOX:** Do we want to get into making motions like this, when  
16 it seems like the other motions that we were making were pushing  
17 for state management and letting the states have the tools and -  
18 -  
19  
20 **MR. KENNEDY:** John asked us for with specifics like this.  
21  
22 **DR. FROESCHKE:** Well, I guess I didn't prompt a particular  
23 motion. It's just that, at the first meeting, we had a sort of  
24 full range, based on that report that you all reviewed, and so  
25 state management is one option. There are other of these  
26 controls, bag limits and size limits and things, and so I just  
27 wanted to not get off the radar, but you guys are clear to make  
28 any recommendations, or not, that you feel is appropriate.  
29  
30 **MR. BLANKENSHIP:** I kind of have the same concern that Ray does.  
31 I mean, going back again, this is my specific fishing that I do,  
32 and there is sometimes that I go to some places that I go, and I  
33 guess maybe it's the fishing method, and maybe I would have to  
34 go back to using double hooks and cut bait, if you wanted to  
35 catch small ones, but I can go to a spot and not catch anything  
36 under twenty to twenty-five inches.  
37  
38 **MR. KENNEDY:** There's a lot of people that ain't like us.  
39 That's the way we are, and we go and everything is ten to twenty  
40 pounds and that's it.  
41  
42 **MR. BLANKENSHIP:** I'm not exceptional. I'm just your average  
43 old sixty-five-year-old fisherman that don't go out more than  
44 ten or fifteen miles and still catch them like that, and so I  
45 would hate for us to recommend something that, like Ray was  
46 saying, where people are going to go out there and discard  
47 oversized just to catch something smaller.  
48

1 **CHAIRMAN CAPLINGER:** We've got another comment from the back.  
2  
3 **MR. RUSS DUNN:** Just one totally outside-of-the-box thought, if  
4 you're interested in looking at pounds, is what about an  
5 aggregate pounds limit per angler, instead of a fish limit?  
6 Instead of two fish, you get fifteen pounds or twelve pounds or  
7 whatever, and you could apply that by the angler or by the boat  
8 or whatever. That way, you keep whatever it is you catch, be it  
9 small or large, to whatever that aggregate per angler pounds  
10 limit, and I don't know of any analysis that's ever been done on  
11 the idea or anything, but it's one --  
12  
13 **CHAIRMAN CAPLINGER:** I don't know how you would -- The  
14 enforcement might be a disaster.  
15  
16 **MR. KENNEDY:** But that would keep them from keeping the big  
17 fish.  
18  
19 **CHAIRMAN CAPLINGER:** Okay, and so, like Ed mentioned, in  
20 Louisiana, it's a slot, and we have a five-redfish limit. Only  
21 one can be over twenty-seven inches. The rest have to be  
22 between sixteen and twenty-seven inches. Is that kind of what  
23 we're talking about here, or do you want to -- Instead of  
24 getting specific, do you want to just say that we ask the  
25 council to consider other options, other bag limits or other  
26 size, slots --  
27  
28 **MR. KENNEDY:** Just increasing the two-fish bag limit with the  
29 slots is fine.  
30  
31 **CHAIRMAN CAPLINGER:** That could perhaps increase our  
32 opportunity, and I hate to catch three fish and then, all of a  
33 sudden, we go from three days to a day.  
34  
35 **MR. LANDGRAF:** I think, just like you posed it, you can consider  
36 increasing the bag limit, for example, and list that example.  
37  
38 **MR. KENNEDY:** That will be great, yes. Consider increasing the  
39 current recreational bag limit, for example, to three fish, with  
40 two fish under twenty-six inches and one fish over.  
41  
42 **MR. LANDGRAF:** Yes, and we all don't have to agree on everything  
43 in here.  
44  
45 **MR. KENNEDY:** I just wanted to do something different.  
46  
47 **MR. LANDGRAF:** We can throw it up there.  
48

1 **CHAIRMAN CAPLINGER:** We don't know what a twenty-six-inch fish.  
2  
3 **MR. LANDGRAF:** I don't know that I know either.  
4  
5 **CHAIRMAN CAPLINGER:** Exactly.  
6  
7 **MR. VALENCIANO:** We're already telling the state to manage the  
8 stock. I don't see the need for this, and, if you compare it to  
9 redfish, you don't have a mortality problem with redfish.  
10 You're catching them in three feet of water. You throw them  
11 back, and he goes off and swims off. You can't compare the two.  
12  
13 **DR. FROESCHKE:** At the risk of speaking on behalf of Dr. Shipp,  
14 I asked him if there was anything that he wanted me to convey on  
15 his behalf, and he said the one thing that he was going to  
16 emphasize, if he were here, was the concept of depth and  
17 distance management. We know that bigger fish tend to be in  
18 deeper water, and that perhaps changing the way we fish and  
19 restricting that to shallow waters, in some mechanism, could  
20 achieve both a reduced catch rate and direct towards smaller  
21 fish. That might be more of -- I think you would benefit from  
22 having him here to speak on his behalf, and perhaps, sometime  
23 soon, we could do that, but just to think about it.  
24  
25 **CHAIRMAN CAPLINGER:** I think, when we talked last year, you  
26 talked about an area offshore that would essentially be a  
27 breeding ground and off limits, maybe 300 feet and deeper, or  
28 400 feet and deeper, or something like that. Is that right?  
29  
30 **DR. FROESCHKE:** Yes, and, if you think about it, the way that  
31 red drum -- Red drum are basically depth and distance. It's not  
32 necessarily depth. It's offshore, most of those, but you can't  
33 catch them in federal waters, and obviously those exact  
34 boundaries certainly would not work for red snapper, but I think  
35 that's the concept that has been introduced.  
36  
37 **CHAIRMAN CAPLINGER:** Okay. We have a motion on the table right  
38 now. Do I have a second?  
39  
40 **MR. LANDGRAF:** I will second the motion.  
41  
42 **CHAIRMAN CAPLINGER:** All in favor; all opposed. The motion  
43 fails.  
44  
45 John, are we done? Is there anything else? All I would like to  
46 say is I know this is a big effort. It's a big effort for you  
47 all to come, and these were pretty tough traveling scenarios,  
48 and we certainly appreciate you coming and doing this, because

1 this is the only way we are going to get anything changed, and,  
2 like I said, I'm a cup-half-full guy, and I heard a lot of good  
3 things, and I think we've come a long way in just a year.

4  
5 Maybe next year things will be even better, but I want to thank  
6 Dr. Crabtree for this opportunity, and I want to thank Shannon  
7 and Assane, and I want to thank Ava, and, of course, John.  
8 Thank you so much. Karen, thank you for keeping me on track.  
9 Kathy certainly was a big help in getting this organized and  
10 getting everyone here, and so this is a good opportunity for us,  
11 and don't think that we don't appreciate it.

12  
13 Sometimes it may seem contentious, and it may seem like maybe  
14 we're not grateful, and it is because we have been frustrated  
15 for quite some time. It is certainly not personal. It is an  
16 opportunity that we appreciate, and so I can't thank you enough  
17 for being here, everybody.

18  
19 **MR. WILLIAMSON:** I don't think that our work here is done. I  
20 just want to point out that the headboat snapper boat people  
21 spent over three years to get where they are today. We have had  
22 two meetings, three days, and there are a whole bunch of things  
23 that are getting ready to happen with respect to the Modern Fish  
24 Act and with respect to the ten-million-dollar study, and we  
25 haven't even heard what the numbers are going to be for this  
26 latest MRIP, and so I suggest that we meet again, approximately  
27 the same time we did the first time.

28  
29 I mean, there's a whole lot of unfinished business, plus the  
30 council is going to be meeting, at least once, between now and  
31 May or June, and so I just want to point out to you that, in my  
32 opinion, we haven't even begun to address the issues, and it  
33 will be very interesting to see what happens in Congress and  
34 with the states and the reports that are coming up in the next  
35 couple of weeks.

36  
37 **MR. LUITJEN:** I think Key West for the next meeting.

38  
39 **MR. WILLIAMSON:** I like this travel business, but I mean,  
40 honestly, and I believe this so strongly, but you can have it in  
41 San Antonio and I will just drive down to wherever you're at.  
42 That's fine, but we do need to keep on working on this stuff.

43  
44 **DR. CALAY:** I wanted to thank everyone for the opportunity to  
45 speak. I found this meeting actually productive, and I thought  
46 your questions were both very interesting and also extremely  
47 appropriate, and so I was very pleased by what I heard, and I  
48 actually learned quite a bit, too.

1  
2 I also wanted to stop by saying that we are currently conducting  
3 the 2018 red snapper assessment, and the assessment webinars are  
4 open to the public. They are open to anyone who wants to  
5 participate, and I think that the announcements can be found on  
6 the Gulf Council website.

7  
8 Yes, they can, and so feel free, if you are interested in  
9 participating in that process, to register for the webinars.  
10 You can listen only, if you want to, and so it is a very open  
11 process, and we actually encourage the participation of the  
12 fishing community. That has been a very productive  
13 collaboration, and so you're very welcome.

14  
15 **CHAIRMAN CAPLINGER:** Thank you. Do we have a motion to adjourn  
16 or any other new business? Then we have a motion to adjourn.

17  
18 **MR. MARQUEZ:** Hold on. **I'm told that I need to make a motion to**  
19 **meet again down the road at some time that they determine.**

20  
21 **CHAIRMAN CAPLINGER:** Okay. Does our budget allow for another  
22 vacation? Okay. Then we have a motion to continue these  
23 meetings, and it's seconded. All in favor; any opposition. **The**  
24 **motion passes.** Within a year?

25  
26 **MR. MILLER:** Charlie, I'm in it for the long haul, but when we  
27 signed up, it was a two-year commitment. Are we bound to just  
28 two years? Is the nature of our existence two years, period,  
29 twenty-four months?

30  
31 **DR. FROESCHKE:** This committee was an ad hoc committee, and it  
32 would be reviewed and potentially renewed, or reappointed, in  
33 two years, and so the council could do a few things. They could  
34 disband the group and say the work is done, they could renew the  
35 AP and then reappoint, and people would have to reapply and be  
36 reappointed, or they could -- That is the council's choice.

37  
38 **MR. MILLER:** When is our two years up?

39  
40 **DR. FROESCHKE:** I believe it should be April of 2019.

41  
42 **DR. SIMMONS:** The ad hoc APs are reviewed every year, and so the  
43 council will be reviewing all of the ad hoc APs at the January  
44 council meeting, and so ad hoc is every year, but, typically,  
45 the council keeps the group until your work is done or they're  
46 satisfied with the recommendations that have been provided by  
47 the group.

48

1 (Whereupon, the meeting adjourned on January 18, 2018.)  
2  
3 - - -