SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

SNAPPER GROUPER ADVISORY PANEL

Crowne Plaza Hotel
North Charleston, South Carolina

APRIL 8-10, 2014

SUMMARY MINUTES

Snapper Grouper Advisory Panel Members:

Robert Johnson, Chairman
Jim Atack, Vice-Chairman
Robert Thompson
Mark Brown
Bill Cole
Phil Conklin
Don DeMaria
Kenneth Fex
Richard Stiglitz
Rob Harris
David Moss
Red Munden
Scott Osborne
Rodney Smith
James Freeman
Jack Perrett
Jimmy Hull

Council Members:

Ben Hartig
Dr. Michelle Duval
Mel Bell
Chris Conklin
Jack Cox
Charlie Phillips
Doug Haymans

Council Staff:

Bob Mahood
Gregg Waugh
Amber Von Harten
Kim Iverson
Myra Brouwer
Roger Pugliese
Dr. Mike Errigo
Dr. Kari MacLauchlin
Dr. Brian Cheuvront
John Carmichael
Mike Collins
Julie O'Dell

Observers/Perticipants:

John Hunt
Dr. Marcel Reichert
Chris McCaffity
Lt. Mike Mastrianni
Stacey Harter
Tracey Smart
Dr. Joey Ballenger
Mike Burton
Dr. Will Heyman

Additional observers attached

The Snapper Grouper Advisory Panel of the South Atlantic Fishery Management Council convened in the Crowne Plaza Hotel, North Charleston, South Carolina, Tuesday afternoon, April 8, 2014, and was called to order at 1:30 o'clock p.m. by Chairman Robert Johnson.

MR. JOHNSON: Okay, guys, the first thing we're going to do is we've got some new faces on the AP; so I'm going to start with Jimmy Hull down there on the end and we're going to come around this way. Speak your name into the microphone and what you do and what sector you're from.

MR. HULL: My name is Jimmy Hull; I'm from Ponce Inlet, Florida; and I'm a commercial sector. I also have a seafood market and restaurant.

MR. FREEMAN: Jim Freeman; also from Ponce Inlet, Florida; commercial sector; subcommittee on the wreckfish.

MR. CONKLIN: Phil Conklin; grouper snapper; commercial; wholesale/retail seafood.

MR. OSBORNE: Scott Osborne; commercial fisherman; Stuart, Florida.

MR. PERRETT: I'm Jack Perrett from Georgia; recreational fisherman and diver.

MR. MOSS: David Moss; Fort Lauderdale, Florida; recreational fisherman.

MR. MUNDEN: I'm Red Munden from Morehead City, North Carolina. I'm retired from the North Carolina Division of Marine Fisheries as a fisheries management biologist.

MR. BROWN: Mark Brown here in Charleston; commercial and recreational.

MR. STIGLITZ: Richard Stiglitz; Florida Keys; commercial fishing.

MR. FEX: Kenny Fex; North Carolina commercial fisherman.

MR. ATACK: Jim Atack; North Carolina; commercial and recreational spearfishing.

MR. JOHNSON: Robert Johnson; I'm a charterboat operator out of St. Augustine, Florida.

MS. BROUWER: I'm Myra Brouwer; council staff.

MR. COLE: I'm Bill Cole from Greensboro, North Carolina. I'm retired from U.S. Fish and Wildlife Service and National Marine Fisheries Service; and that's about it.

MR. HARRIS: Rob Harris; Key West; recreational and for-hire.

MR. DeMARIA: Don DeMaria; Summerland Key; commercial and spearfishing.

MR. SMITH: Rodney Smith; Satellite Beach; media.

MR. THOMPSON: Robert Thompson; Murrells Inlet, South Carolina; charter/headboat; recreational.

MR. HARTIG: Ben Hartig; Chairman of the South Atlantic Council, and welcome to you all. Thank you for your continued dedication to this process, and I hope you don't mind me sitting at your table, because there was no room elsewhere.

MR. JOHNSON: We're going to have approval of the agenda, but there are going to be a couple changes; Myra, if you could tell them what those are going to be.

MS. BROUWER: We thought that to start things off right after we do the election of Chair and Vice-Chair; we're going to have Kim Iverson, who is our Public Information Officer, give us an overview of the council process and how the APs are involved and stuff for the benefit of the new AP members that are here today.

Then we're going to do our update on the recently completed snapper grouper amendments. That should be fairly brief, but it will give you guys a chance to ask questions and just see where we are with the various amendments that have recently been submitted or the ones that we're still working on.

Then we'll have John Carmichael give his presentation to you on Regulatory Amendment 21, the one that changed the MSST definition. If you recall, that was an amendment that you guys didn't get the chance to see prior to the council approving it in March. It was sent to you via e-mail, and I think there were some misunderstandings as far as what the council was trying to do with the action they took in that amendment.

We wanted to make sure that John was here to present to you guys why the council took the action they did and to give you the opportunity to ask questions and understand how that was all done. We'll do that; and then there is another presentation that is not on the agenda that Chris McCafferty is going to give.

He is going to be talking about these fish-descending devices that from I understand the Pacific Council has recently approved to use. Then we're going to get into Regulatory Amendment 16, which is the one that is going to readdress the closure on black sea bass pots. Those are the only changes so far to the agenda.

MR. JOHNSON: Thank you, Myra. I would like to tell the group a huge thanks for bearing with me for the last couple years as your chairman. It has been a great privilege representing you to the council, and I hope I've done a somewhat decent job. At this time we are going to elect a new chair and vice-chair that will serve at the next AP meeting.

We sent out an e-mail – I hope that people received it – soliciting names. From what I saw, the group was very supportive of the vice-chair taking over the chairmanship. The other thing that was also brought to bear was Kenny Fex being the Vice-Chair. If somebody wants to make a motion or talk about that or if they have any other names they want to throw in the mix.

MR. COLE: To formalize it, Mr. Chairman I'm going to move the selection of Jim Atack as Chair, and Kenny as Vice-Chair; and then I'm going to move that nominations be closed and we elect by acclamation.

MR. JOHNSON: Do we have a second; seconded by Phil. All in favor. Okay, thank you so much.

MR. COLE: See how fast we can do it?

MR. JOHNSON: While Myra is finishing typing; I will say that it does take a lot of work. It takes some time. Remember these, guys, it is a little bit more of a job than I anticipated when I first took it on.

MR. COLE: Mr. Chairman, and toward that; I think that we have to really recognize the time and effort that you have put into it. You've not only put in time here, you've put it in numerous, numerous public hearings; and you've actually had to make a couple of trips to D.C. on our behalf. On behalf of all of us and I'm sure of the council, we thank you. You really have done a great job. (Applause)

MR. JOHNSON: Thank you; that is very gracious. Okay, I approved the minutes from the last meeting. Now that you have all clapped and you are being so nice to me; I hope there were no objections to that. If not, we'll move on. Seeing none; Kim.

MS. IVERSON: Thank you for being here this afternoon. We have some new members on the advisory panel as you were introduction yourselves at the table. My name is Kim Iverson; and I'm the Public Information Officer with the council; and welcome. We thought it might be helpful to just kind of give everyone a quick overview of the council process in a nutshell – that would take the whole afternoon if we went into a detail – and the role of the advisory panels.

If time allows, I want to show you some kind of neat things that you can use on the website to access some information that you can impress your fellow fishermen with and help my job as far as getting the word out that this information is available online. What I wanted to do this afternoon briefly is just kind of go over the council process and the involvement; how the advisory panels fit into that process, and what your role is as you sit around this table for the next couple of days.

Of course, the regional management councils were established under the Magnuson-Stevens Fishery Management Act back in 1976. There are eight regional councils and the tagline for this South Atlantic Council is to conserve and manage. The council's role is to develop fishery management plans and subsequent amendments. This is just a map showing the eight regional management councils and their jurisdictional boundaries.

If you start at the top right-hand side with the New England Council in red; then move down you will see the Mid-Atlantic Council's jurisdictional area in yellow, and the South Atlantic Council in blue. The Caribbean Council's jurisdiction is indicated here; and the Gulf Council's area of jurisdiction here. On the west coast is the Pacific Council; and the North Pacific Council that encompasses federal waters around the entire State of Alaska. The Western Pacific Council

encompasses Hawaii and the American Territories, including Guam, Northern Marianas Islands, et cetera.

There is a lot of responsibility within the eight regional management councils. We're going to focus this afternoon briefly on the South Atlantic Council whose jurisdictional boundaries extend from the Virginia/North Carolina Line down to the Dry Tortugas on Florida's east coast. It is difficult to see on this slide, unfortunately, but the red line-out delineates the EEZ, the exclusive economic zone or federal waters.

It runs from 3 to 200 miles offshore; and as you get down off of southeastern Florida, it bumps in, of course, to encompass the Bahamian National Waters, so it does move in. It is a range from 3 to 200 miles in the South Atlantic. The council has management plans that it is responsible for, including the Coastal Migratory Pelagics, which includes the king and Spanish mackerel and cobia; the Coral FMP; dolphin and wahoo; golden crab, which is a small commercial fishery primarily prosecuted off the southeastern coast of Florida; the habitat plan, the Sargassum Plan.

There is actually a plan for sargassum. Sargassum was harvested a few years ago, actually several years ago off the coast of North Carolina, and the council was responsible for developing a fishery management plan to limit that harvest. The Shrimp Fishery Management Plan includes the penaeids, the pink, brown, and white shrimp, as well as rock shrimp.

Snapper grouper you are familiar with. The Spiny Lobster Fishery Management Plan is primarily prosecuted off the coast of Florida and in conjunction with the Florida Fish and Wildlife Conservation Commission. Then there is a multi-volume Fishery Ecosystem Management Plan that has been developed and is currently under review and update.

Who are the council members, where did they come from, how did they get here, and what do they do? I think you understand a little bit more of what the council members are responsible for; but they were made up of recreational and commercial fishermen from the four southeastern states. State marine resources agencies each has an appointee to the council.

Then there are federal partners, the U.S. Coast Guard; the U.S. Fish and Wildlife Service; NOAA Fisheries, the Regional Office – Dr. Crabtree is the representative for that office – the Atlantic States Marine Fisheries Commission and the Department of State. With the exception of the four agencies, the Coast Guard, U.S. Fish and Wildlife, ASMFC, and the Department of State, the others are voting members. There are 13 voting members.

Our current chairman is Ben Hartig, and he is a full-time commercial fisherman from Hobe Sound, Florida, and Dr. Michelle Duval, who is the council Vice-Chair, and is the North Carolina Division of Marine Resources representative. There are obligatory and at-large members, and those are nominated by the governors of each state and then appointed by the Secretary of Commerce. Members serve three-year terms.

It is very important to remind people as you are out talking to the public that these council members actually are full-time fishermen, some of them, and they work for the Division of Marine Fisheries for different states, and they have other jobs outside of their role as the council. The council functions under committees.

The council meets four times each year. You can always mark your calendar by the dates that the council meets. It meets the second week in March in Georgia; it meets the second week in June in Florida. Generally the council tries to meet in North Florida one year and then South Florida the next. This year we're meeting in Ponte Vedra Beach, Florida, the second week in June. Next year it will be in Key West, so trying to go up and down because Florida is a big state to cover.

The council meets the second week in September in South Carolina and then the second week in December in North Carolina. Those dates are scheduled far in advance. Sometimes fishermen and the general public don't understand that we may be in North Carolina talking about spiny lobster; but that North Carolina meeting was scheduled two or three years in advance. It is difficult to get hotel rooms and schedule things in advance.

Sometimes that happens. It is not a good thing necessarily but it does happen, because these meetings are scheduled far in advance. The South Atlantic Council meets generally for five days. The majority of those meetings consist of committee meetings. All the council members serve on various committees.

There is a Snapper Grouper Committee, Mackerel, Shrimp, Dolphin Wahoo, Law Enforcement, Habitat, AP Selection. There are different committees and their job primarily is to do – as I tell the public, they make the sausage. That is where the committee work is done. At the end of the meeting week on Thursday afternoon, generally speaking, the council will go into Full Council, at which time the council will vote on the issues at hand.

The Full Council is responsible for the final decisions. You can have a discussion at a committee level on Tuesday and at Full Council that discussion can continue and change. I always tell people to listen – if you're listening on the webinar or you're attending a meeting, listen in for the final discussion at Full Council, because things can change throughout the meeting week.

The council is mandated or has policy mandates that it must work under. The Number 1 policy, of course, is the Magnuson-Steven Act. There are 10 national standards. This Act is amended periodically. In 2007 it was reauthorized, as many of you are familiar with. It sets to end overfishing and establish annual catch limits and accountability measures. I'm not going to go into that today again. I could go through this afternoon and we could talk about this for the next three hours.

Under other policies that the council has to work under, the National Environmental Policy Act, or NEPA – you will hear a lot of acronyms. There is nothing wrong with asking any of the staff members what an acronym means. Even after three or four years, sometimes something will come up and there is absolutely nothing wrong with saying, Kim, what is NEPA, or what does this mean, what is SEDAR, what does it stand for?

Sometimes I've been working with the fishery-independent sampling program, MARMAP, and it will just draw a blank; and I cannot remember what it stands for. There are a lot of acronyms that will be flying around the room; and if you don't understand something, please just don't hesitate to ask – again, the Marine Mammal Protection Act, Endangered Species Act; lots of mandates that the council has to work under.

The management plans and the amendments; as the council goes through the considerations and the alternatives, they have to consider the biological needs and the mandates from the policies that we just discussed and also the economic impacts and social impacts. The council staff resides here in Charleston, South Carolina. There is a full-time economist, Dr. Brian Cheuvront, who is here; and then Dr. Kari MacLauchlin, who is here, is the council's social scientist.

The council staff members are over here against the wall, and some of the council members will be free to introduce themselves later. We have a 14-member staff that is located off of Leads Avenue, which is one exit out from the airport from where you came in. We're not very far away; and you are always welcome to stop by the council office.

The council also gets input from its Scientific and Statistical Committee, the SSC. This is a group picture of the SSC. They are scientists and other persons that are familiar with the stock assessment program and stock assessment biology. These SSC members review the fishery management plans and amendments as needed.

The SSC is responsible for setting the acceptable biological catch and overfishing levels for species once stock assessments have been established. Those stock assessments are done through the SEDAR, the Southeast Data Assessment and Review Stock Assessment Process. Again, lots of acronyms if you are new to the table that will be thrown out here, but after a while I think you will become more and more familiar.

Public participation is key. It is mandated in the original Magnuson-Stevens Act that this is a public participation process and an open and transparent process. The National Environmental Policy Act dictates that alternatives are always on the table. The council cannot simply say we want to – I will just use this as an example – increase a size limit or decrease a bag limit.

There have to be alternatives; those alternatives have to be analyzed and reviewed; and public input is key to this process. There are 11 advisory panels. The advisory panels are set up to provide grassroots information and recommendations to the council's committees. The 11 advisory panels are listed there.

I am not going to read through them again, but they vary; everything from the Information and Education Advisory Panel and the Law Enforcement Advisory Panel to the Snapper Grouper Advisory Panel that you are members of. These advisory panel members are made up of commercial and recreational fishermen, charter captains, wholesale seafood dealers and operators, representatives from environmental organizations. Each of the species' specific advisory panels has an NGO representative. Your representative, Gretchen Martin, unfortunately, was not able to be here at this meeting.

Each AP that is species-specific has an environmental representative. Scientists and anyone interested; there are open seats right now on the advisory panels that are being advertised. May the 2nd is the deadline; so if you know of anyone that is interested in applying, please have them contact me and I will be glad to talk to them about it.

What are the duties and the objectives? The council has a SOPPs, Standard Operations and Policy and Procedures; and in there the duties of the advisory panel members are outlined: offer continuing advice on the assessments and specifications contained in the fishery management

plans and amendment; in regards to the capacity and extent to which fishing vessels will harvest the resources considered in the fishery management plans; the effective measures on local economies and social structures; potential conflicts between user groups; and enforcement problems. These are outlined within the council's SOPPs.

When you were appointed to the advisory panel, some of you several years ago, you should have received a copy of the SOPPs; and if you would like a copy, please let me know. The advisory panels provide recommendations and report through a formal report at the council committee. The advisory panel chairman will attend that council meeting and provide that report and help answer any questions or clarify any questions that the council may have.

The recommendations are considered by the committee for the development of the fishery management plan and amendment. I put this in here for my benefit; that the advisory panel members, once you sign up to be an advisory panel member and you're appointed, I use you as an information source. If I get a question from the members of the public and they want to talk to somebody locally, you are on the list now.

I send them to our website or I will provide them with individual contact information and say, "You know, you may want to contact Scotty Osborne, because Scotty has been fishing for golden tilefish for a long time; and he knows a little bit more about that market down in his area. I'm going to give you his number."

Just to let you know; you're on the list; and you may get a call and someone call you and say, "Kim Iverson said to give you a contact". It works both ways. If you have wonderful pictures, anything that you want to share with me that you would like to get out to the public, please, by all means, contact me.

I want to thank the people that are the table, especially Don DeMaria, who sends me awesome underwater fish pictures. It is a two-way process there. The fishery management process is complicated. Again, I am not going to go through it completely, but I wanted to kind of walk you through step by step.

There is identification of a management issue. In some cases a stock assessment is completed and the council has to take action. There is public scoping input from the advisory panels. The reason I put the asterisk there is because it is not one time. In most cases, the advisory panels will discuss things at least once, sometimes twice.

Generally speaking, you meet in the spring and the fall, and you may see the same amendment a couple of times or the alternatives within that amendment. The council staff is responsible for preparing a public hearing document with the management alternatives that we talked about. There are public hearings and written comments. If people can't attend the hearings, they can send in written comments via e-mail. The amendment or the fishery management plan is then approved by the council after getting the input.

When the council approves an amendment; that does not mean that it is law. It goes to the National Marine Fisheries Service; it has to be reviewed by the National Marine Fisheries Service; and then goes up to their headquarters where it is goes through the secretarial review process.

The Secretary of Commerce ultimately approves the amendments or the fishery management plans; and regulations are implemented by the National Marine Fisheries Service. The council does not have law enforcement capability. It does not enforce regulations; it does not implement regulations; it does not have a research vessel; and it is not responsible for research and monitoring or tracking data.

In the federal regulatory process, it is a bottom-up process. The stock assessment done through the SEDAR process will oftentimes start the process from which the council has to take some sort of regulatory action. There could be other issues; there could be social issues; there could be economic issues.

The council right now is dealing with an amendment dealing with allowing fillets of fish to come in from the Bahamas. That is not a stock assessment issue. That is a wish that some of the fishermen came to the council and said, "We would like to be able to bring our fillets of dolphin and wahoo."

That doesn't necessarily have to go through an SSC review, but it would come before the advisory panels. There will be a public hearing and some public comment on that issue. Then it goes to the council. The council is responsible for gathering the information from the scientists and fishermen and the stakeholders and developing the management plans and amendments – council is kind of the middle guys here – and then they forward those approved amendments or FMPs to the Secretary of Commerce for final approval and implementation through the National Marine Fisheries Service.

If there are any questions I will be glad to answer them. I just wanted to go through and kind of give you a quick overview. I don't know if we have time, Mr. Chair, but I was going to perhaps see if there were any questions and then show you a couple of resources that you may be able to use. Does anybody have any questions? That is it in a very quick nutshell.

One of the things that I get asked a lot – and Amber Von Harten, who is the outreach specialist; who is over on this side of the room; and most of you know Amber. Amber came to work with the council a couple years ago. She was a Sea Grant Extension Agent with South Carolina Sea Grant, so she has a fisheries background and just recently completed – well, she has not completed, but almost completed all the port meetings that the council has through its visioning project. Amber will be talking with you about that a bit more later on.

But we have three key resources in dealing with fisheries and looking at what is open, and what is closed and fisheries regulations. One is the council's website. If you haven't had a chance to go through and look at the information that is available there, I would encourage you to do so. Then the NOAA Fisheries website – Myra, can I just pull up the website? I don't know if we'll be able to get on, but I will be here at the meeting and we may be able to show you how you can go through the council's website. On the top left-hand side is a section called Regulations and Fish ID. If we have a chance to pull it up, we will.

But you can go there and have a link – there are two links that will take you to tables within the National Marine Fisheries Service Website, and that is what that small diagram is there at the top right-hand side. That actually gives you the annual catch limits as they are updated by the

National Marine Fisheries Service periodically for both the commercial and recreational fisheries.

You can see how far along you are, say, for black sea bass; is black sea bass open? Yes, black sea bass is still open, thank goodness, for both commercial and recreational fisheries. But you can go in and see what percentage of black sea bass have been landed to date both from commercial and recreational and kind of keep abreast of when that catch limit may be met and a fishery closed.

On that table – again, I apologize because we don' t have it set up with the live feed so I can show you literally, but you can go and also see what fisheries are opened and closed and track the catch limits. Also, if you haven't already done so, if you have a smartphone, you can download the regulations' application, the South Atlantic Fishing Regulations Application.

It is available in both Android and Apple platforms. It is great; you will be kept abreast of all the openings and closing, what is open, the size limits, bag limits, managed areas. There is a wealth of information on that application; and once it is downloaded, you just update it. You can go offshore. Even if you don't have cell signal, you can access the latest information.

I just wanted to show you those three resources that you have. And again I've got my computer back here; and at a break if you say, "Well, Kim, how do I get to this annual catch limit page with NOAA Fisheries"; I will be glad to show you. Does anybody have any questions on that?

MR. SMITH: Kim, are you done with your PowerPoint yet? Okay, that wasn't my question; but to lead in I'm going to let my pants down and be a little ignorant here, but maybe I should learn something. We had a discussion about the hog snapper. The AP's motion and suggestion to the council about upping the size limit for hog snapper; we haven't seen any movement on that. Explain to me why it is where it is and why we haven't moved forward with it. It has been a couple years.

MS. IVERSON: That is a good question, Rodney, and I'm glad you asked that; because it is really important to remember it is a bottom-up process. The council's advisory panels; all of them are just that, advisory panels. They are there in an advisory capacity. You can make recommendations.

The recommendations are given verbatim through the report. There will be a report; and council staff works with the chairmen of the advisory panels to put together a report. That advisory panel chair, as I said earlier, goes directly to the committee and provides that report and a list of recommendations and the motions that are approved at your meeting. Then the council's committee will have discussions.

That recommendation is given to the committee; and then they would have discussion on that. The council's committees, if you've been to a council meeting, you've listened, and they are very deliberate about putting on the record the rationale behind why they do or don't do certain things. In this particular case with hogfish, I believe they are waiting on the assessment to come through and be reviewed before taking action.

Also both the Gulf Council and the South Atlantic Council have put together a Joint Committee on South Florida Management Issues; and hogfish is one of those species that will be looked at from that joint committee; recognizing that hogfish are primarily harvested in South Florida. There are hogfish that are harvested throughout the South Atlantic Region; but it will be addressed by the South Florida Management Issues Joint Committees between the South Atlantic and the Gulf Councils; and the stock assessment is forthcoming.

Again, let me point out to you also that the meeting minutes from this meeting, from any of the council committee meetings, and the council meetings are always available. You can e-mail me, you can e-mail any of the staff members and request a copy of the meeting minutes, and they are verbatim. They are transcribed.

The audio files are available the next day; so if you want to hear the discussion, you can also listen online. All the council meetings are accessible via webinar, so you can actually listen to the conversations as they occur and follow along online. That is for any member of the public, not just to AP members; it is an open and transparent process; so if you want to hear the discussion, you can request a copy of the meeting minutes.

The transcribed versions are generally available about two weeks after the meeting. It takes a couple of weeks for the contractor to get them back. Then you can do control F and find hogfish discussions and follow along there, too. The AP recommendations are always considered by the committee as part of the report and discussed generally.

MR. DeMARIA: It just seems like something like this hogfish issue that has a lot of support for raising it from all sectors. There may be a few opposed, I'm not sure; but when the fishing public comes to the council with that much support, it seems like they would act and not just kick the can down the road, which is basically what they're doing.

It has been disturbing to a lot of people especially in South Florida to recommend this time and time again in numerous meetings and then just nothing happens. I suspect at some point, you know, drag on and on and on, and then there will be a stock assessment and it will be, oh, my God, they're overfished; we better close them down or something like that. That is what we're trying to avoid here, but yet the council doesn't seem to react to it at all. It is kind of discouraging.

MR. HARTIG: If I may; I was going to try to stay out of your business, but I will speak up here. It is not like the council doesn't want to do anything for hogfish. Really, we had a little bit of information come to us prematurely out of the assessment that says we have three distinct groups of hogfish now; one off of southwest Florida, one off the Keys, and one in North Carolina; that all could have different management on each one of those genetic groups. That is one of the things that we're considering; that we knew ahead of time, before going into that, we would want to consider when that stock assessment comes to us.

You could essentially do different regulations for each genetic group based on the productivity of each group, the differences in each area and things of that nature; so that is one of the reasons we haven't moved forward. But I do acknowledge Don's frustration with we haven't heard – I don't think of anyone that I've come in contact with who didn't want to change it at least to 14 inches, so I can see that.

I think the council didn't want to have to address this – you know, if we go ahead with a 14-inch size limit now and we come back and find that we may have to do some different regulations shortly after we get the hogfish assessment; we didn't want to have that problem that we had to deal with. That is the main reason.

I know it has drug on a long time, and I understand the frustrations, but it is not because the council doesn't want to do something. It is because the council doesn't want to do something that wasn't right for the different groups that we're going to be managing in the future. That is the difference.

DR. DUVAL: Just one more thing; I just want to remind folks that we did actually have an action in Regulatory Amendment 14 to do exactly that; to look at the hogfish size limit. Because we knew that this assessment information was going to be coming back, we did elect to take it out for all the reasons that Ben said. It has definitely not fallen on deaf ears; I just want to assure you that.

MR. JOHNSON: For Michelle and Ben and the other council members here; a lot of us have been through a lot of pain, all these closures and all these limits. I think trying to look at things a little more proactively than reactively; if I had to complain about the process, sometimes it is like we react after the fact. I don't know any other way to put it. That was the AP's purpose on not only hogfish but on gray triggerfish as well.

MR. SMITH: Since I initiated it, I'll try to finish it up. It is ironic. In Florida – and nobody wants to hear it how they do it back at home; but in the 1980s you were allowed 50 redfish 12 inches long. Then in one day it became a game fish, and we went to none for about 22 months out of 24 months. Then it was 1 fish between 18 to 27 inches from here on out.

It has fluctuated just a little bit since then. Now this was 20 years ago; and that is the state government. But here we are at the federal side – and I'm not complaining to anyone; I'm just making an observation. If this is all these people in this room doing this and then the council doing this and here is the fish that continues to suffer; I guarantee there are a lot of other fishermen out there and fish and habitats that are suffering because of the same type as, what did you refer it to, kicking the can down the road. Somewhere, hopefully, we are going to make some progress and we quit kicking the can down the road before it is too far down the road. This isn't against you, Robert or Kim; you know that. It is not a personal vendetta, but it is kind of like smoke and mirrors.

MR. JOHNSON: I understand, Rodney, but we can handle this under other business. I want to turn it back over to Kim and let her get finished here.

MS. IVERSON: I just wanted to show you quickly we're up online now. Most of you are familiar with the council's website; but under the Regulations and Fish ID Section; regulations by species here; if you click here, it is going to take you to a wealth of information, including information on the mobile application that we mentioned earlier. Then there are PDF versions of the commercial regulations and recreational regulations here.

You just click on these links and they will download single page, front and back, regulation summaries for the snapper grouper species. There is a regulation brochure that is available for

download on the Deepwater MPAs that has maps and coordinates for all of those, a rack card; a simple rack card on the Oculina Bank Experimental Closed Area and the Habitat Areas of Particular Concern and the restrictions there.

Then you can go down regulations by species. Any of these species, if you click on them, you will get a page that will show you. I'll do this for almaco jack. There will be a description, biological description, and then a list of the commercial and recreational regulations. Once you download the regulations' application, you will see the information presented in much the same format.

I did want to take you to the page within the National Marine Fisheries Service Southeast Regional Office. Here are two links right here that are going to take us – it says annual catch limit monitoring, commercial and recreational. We'll just click on the commercial. It takes you directly to the NMFS Southeast Regional Office Website and the table that tracks annual catch limits.

Here you can see what is opened, what is closed, if a trip limit has been reduced, the catch limit, the percent of the annual catch limit that has been caught to date based on their logbook reporting. You scroll down, because a lot of times they will say, "Well. I don't see anything on black sea bass"; but on all of the websites you have to continue to scroll. I just wanted to show you those as resources and let you know that they are available. That is a quick overview, and again I will be glad to show you where they are. I will be here at the meeting.

MR. JOHNSON: Thank you, Kim. Myra.

MS. BROUWER: The next thing I wanted to do is just give you an update of where we are and some of the snapper grouper amendments that have recently been submitted or that are still under development and what is happening with those. Regulatory Amendment 14 was submitted to NMFS a while ago. We still haven't heard.

There is not proposed rule out there yet; but this is the one that would modify the commercial and the recreational fishing years for greater amberjack to begin March 1st. It would modify the recreational fishing year for black sea bass to begin April 1st. It would modify the accountability measure for black sea bass to where NMFS is going to predict how long the season is going to last and announce the length of the season on or before April 1st.

It is going to change the commercial fishing season for black sea bass as well to where there is going to be a trip limit for the hook-and-line sector from January to May. Then pots open up in May; and that trip limit for pots is 1,000 pounds. Then, of course, there is still the prohibition on the use of pots beginning November 30th. The council considered changing the commercial fishing seasons for vermilion; but they chose no action as their preferred so that is staying the same.

Then they put in a step-down trip limit for gag. It is 1,000 pounds and then it goes down to 500 when 75 percent of that commercial ACL is met. They also modified the recreational accountability measure for vermilion; because the recreational season closure was taken away and so there was no in-season accountability measure.

Now what is going to happen is if the total ACL is exceeded. then there are going to be accountability measures that kick in. That amendment is, like I said, still in the process of going through the National Marine Fisheries Service approval process. We're going to talk a lot more about Regulatory Amendment 16.

This is the one that I mentioned already that looks at what to do about the current closure on the use of pots from November 30th through April 30th. That was put in place through Regulatory Amendment 19 when the black sea bass ACL was increased as a result of the stock assessment. We'll be talking about that one in more detail in a little bit.

Then there is Snapper Grouper Regulatory Amendment 17. This is the one that was initiated as a result of the council taking action to remove the 240-foot closure. The intent originally was to establish MPAs to protect populations of speckled hind and Warsaw grouper and reduce bycatch mortality for those two species.

The amendment, as you know, has been in the works for over a year; and the purpose and need was revised. We're going to spend probably much of all day tomorrow talking about MPAs and Regulatory Amendment 17; so I am not going to go into detail there either. We're also going to talk about Snapper Grouper Regulatory Amendment 20.

This is one that is going to address any changes needed to snowy grouper management as a result of a stock assessment that was completed recently. Again, we'll be going into more detail on this one. Originally we had included mutton snapper in here as well; but that amendment was delayed a little bit and so the council had chose in March to go ahead and proceed with potential changes to management of snowy grouper as a result of the stock assessment.

Snapper Grouper Amendment 22; this is one that we've talked about before. The AP has been very interested in its development. It is the one that would consider a recreational harvest tag program for deepwater snapper grouper species. For those things that have a very low recreational ACL like snowy grouper and golden tilefish, wreckfish; those species, the council wanted to consider establishing a tag program to make sure that the harvest remains at or below the ACL.

What has happened with that amendment is there is indication that a tag program of this nature can be considered a limited access privilege program. If it is indeed a type of limited access privilege program, then there are certain requirements that need to be followed in order to establish it.

We're still awaiting further guidance from NOAA General Counsel to determine whether this particular program that the council is considering would fall under the category of a LAPP. Back in March, Monica gave an update to the council; and at that point she indicated that NOAA General Counsel had been in the process of coming up with guidelines that can be applied – nationally relevant guidelines for any kind of such program that is going to be implemented. She didn't really have an answer for the council at that time, so we're going to hear again from here in June; and then we'll decide how to proceed with this amendment. That is where we are on the tag program.

We're going to talk a good bit about Snapper Grouper Amendment 29 at this meeting. This is the one that would adjust the ABC Control Rule based on the recommendations from the SSC. It would then apply that new methodology for species that don't have stock assessments in order to determine the ABC for those species. This is the one that contains management actions for gray triggerfish.

Again, this is something that the AP had been very adamant that the council needed to consider. There was an assessment that was being done for gray triggerfish last year. Then the analysts ran into problems with the aging for triggerfish. There was some discrepancies that needed to be sorted out before the assessment could proceed.

That assessment had to be halted; and the council decided that they did not want to wait any longer to consider management measures for gray triggerfish specifically because the AP and the general public had been saying that there needed to be some management measures put in place even if the assessment wasn't complete yet.

If I'm going too fast, feel free to stop me and ask me questions. A lot of these are familiar to most of you. Snapper Grouper Amendment 32 is one that would establish, if necessary, a rebuilding plan for blueline tilefish. Blueline tilefish was recently assessed and was found to be undergoing overfishing and be overfished.

This is where we get into the discussion of the minimum stock size threshold. It is very slightly overfished to where if you change the definition of that threshold, then it can be determined to not be overfished. That is what happened under Regulatory Amendment 21, which we'll talk about in a little bit.

If a species is overfished, then the council has two years from when they're notified of the status to put in a rebuilding plan. If it turns out that Amendment 21 is approved with a new definition for this minimum stock size threshold, which is the overfished level, then there would not be a need for a rebuilding plan for this species; but you still have to end overfishing.

There are going to be some management measures included in Amendment 32 that are aimed at ending overfishing of blueline tilefish. Are there any questions on that one? We'll get into a little bit more detail about that when we talk about Regulatory Amendment 21. Here is Regulatory Amendment 21 that I've mentioned already.

This is one where the council kind of followed a precedent where they have chosen to establish the minimum stock size threshold at 75 percent of Fmsy – of SSBmsy specifically for species that have low natural mortality. What happens is when a species has a low natural mortality and you use the previous definition of MSST, which is 1 minus M, M being the natural mortality; there is a chance that even regular, normal fluctuations in recruitment over time are going to make it so that whatever target species we're talking about is considered overfished one year, and maybe next year it is not overfished; and so it is just too volatile, I guess.

The SSC recommended that for such species with low natural mortalities, it would be appropriate to establish that MSST at 75 percent of SSBmsy. The council has already done that for a couple of species. They did it for golden tilefish fairly recently under Regulatory Amendment 12.

They've done it for snowy grouper; and I believe there is one more, red grouper. This is something that has already been done for other species; and Regulatory Amendment 21 took care of some other species that also have low Ms to establish the MSST at that level. John is going to tell us a whole lot more about that in a little bit.

Then there is Snapper Grouper Amendment 33, which is the one that Kim mentioned, that addresses transporting of fillets from the Bahamas. Right now vessels are allowed a total of 60 pounds of snapper grouper fillets to be transported back to the states. There is no way of identifying those fillets, however, and so this amendment looks at options for how to address that; if there needs to be provisions to have the skin intact or how can enforcement keep better track of snapper grouper fillets that are brought to the U.S. Brian is going to talk about that amendment sometime this week in a lot more detail.

The next one also is dealing with basically just bringing consistency to all the accountability measures. When the council put in accountability measures, they did so as amendments were developed to deal with various issues. For example, when the Magnuson Act was first reauthorized in 2007, the council had to really hurry up and put in an amendment to put in the ACLs for species that were undergoing overfishing.

Amendment 17B took care of that. Some accountability measures were put in place early and some were put in place late. As a result, there has been inconsistency in how the council deals with accountability. This amendment is going to bring some consistency back to all the accountability measures for snapper grouper species.

Again, this is another one that Brian is going to talk to us about a little bit more. There are a couple more. There is a headboat reporting amendment that was approved last year and actually became effective January 27 of this year; and is one that requires electronic reporting for headboats, weekly reporting. Then there was also a dealer amendment that has just been approved; and it is going to be effective on May 7.

That one has put in one permit for seafood dealers to make it consistent with the Gulf. There is now going to be just one permit for the South Atlantic and the Gulf. It also has weekly electronic reporting requirements. I'm sorry; it is August that it is going to be effective. Any questions?

MR. JOHNSON: Thanks, Myra. We're going to let John Carmichael do his magic.

MR. CARMICHAEL: I just have a little presentation here. We'll have a little science class on MSST. It shouldn't be too hard, not too complicated, just a few slides. MSST stands for the minimum stock size threshold. Essentially this is just our overfished ruler. This is the value by which the council uses or the SSC uses to decide if a stock is actually overfished or not. The way it works is you want the biomass to be high; so if the biomass is too low, it is below the minimum stock size threshold, just as the words imply, then you determine that the stock is overfished. That is really all it establishes. Then we know that if the stock is overfished, well, that brings down a whole bunch of other criteria about rebuilding that stock.

The background on this is it really goes back to the Sustainable Fisheries Act, which was the '96 reauthorization of Magnuson. It is mentioned a lot in what is often called Restrepo et al; and that

was a technical guidance document on many of the concepts that were in the SFA. The SFA began really in federal management the idea of the precautionary principle and these reductions from the biomass at MSY and the fishing mortality rate at MSY and the optimum yield and all those different acronyms that people were just getting a good handle on before we brought out new ones with the last Magnuson Act.

In there they have a good write-up of kind of the justification and what this MSST should be doing. They mention that it probably shouldn't below half of the MSY stock size. That was kind of a starting point for it. Another thing that is mentioned – and this really makes a lot of sense is that it should be the level of which the stock can rebuild in ten years.

If you remember, we have the ten-year rebuilding requirement that you would like stocks to rebuild in ten years if possible. You are allowed to take longer if it can't be done in ten years with no fishing. The idea was not to let the stock go below a level which you could rebuild it in ten years. That sounds really good; and as we've looked at this over time; that has sort of been a concept that has been in the back of people's minds.

When the Science Center first looked at different MSST alternatives several years ago; that is one of the directions they were going is to say you should tie it to how long you will tolerate for your rebuilding time. Well, the problem with that is it is really difficult to estimate rebuilding times. It is difficult to estimate stock productivity; it is difficult to estimate stock biomass.

We often do this in stocks that have been fished down, as we call it, where landings have come down over time. That is the reason we're doing the stock assessment. There is some sense of concern with the stock; so you have your stock at its low biomass levels often when you determine and find out the first time that this stock is overfished.

That is just the nature of where we are in our process. Many of our stocks have not been assessed; so when we do an assessment and determine a stock is overfished, it is often on that first assessment. In those cases we really don't always have a good idea of the productivity of the population because of where we're observing the stock and because of the nature of the data and the time series and everything that goes into that.

Anyone who has been around here for a while and you saw things like mackerel over time and the few stocks that have assessments that goes back even longer than SEDAR; you've seen how perceptions of stock biomass and stock productivity change over time as we learn more about them.

The bottom line is it is really hard to estimate that value to say when you can rebuild at ten years. What they ended up doing is having this proxy definition where they said, well, it should be the greater of either 1 minus M times Bmsy or this half of Bmsy; that is what ended up in the language and what has been applied in many cases. What that is bringing in now is the concept of M and what does M have to do with all of this?

Well, the idea is that a stock with a low M is going to have lower productivity, it is going to be a longer-lived stock; and the perception is that should have more stable dynamics. You think of Goliath grouper versus menhaden. We think that these low M stocks; they are not as productive, they have this biomass out there.

Their dynamics are not changing as much as some of these short-lived stocks. The idea there then is you probably wouldn't allow the biomass of those to decline as far because it is going to take longer to build; so you are more in jeopardy that it might take more than ten years for that stock to build.

But as difficult as it is to estimate how fast a stock recovers, as well as its biomass; it is also difficult to estimate natural mortality. Another thing we've learned in assessing many stocks, particularly in the last ten, fifteen years where we've assessed a lot more of the snapper grouper type stocks; a lot of them have long lives, but yet they reproduce at very young ages.

They begin maturing at very young ages. Their dynamics are not the same as more temperate stocks where a lot of these concepts were built. Perceptions of the relation between natural mortality levels and the stock dynamics and its productivity are really changing. I think that we've seen that a lot of the stocks we manage in the South Atlantic have some strange life history traits now that we might not have expected ten, fifteen years ago before we had actually assessed them.

We've seen therefore then over this sort of range of M, these moderate Ms, say, 0.1 to 0.2, 0.3; there is really a variety of productivity. Some of these stocks are quite dynamic, even more so than we might have thought. Another thing that is going on now is the next evolution of assessments is that M used to be just a constant value.

It was largely assumed based on lifespan of fish, but now we have methods that let natural mortality vary with age. There hasn't been an assessment we've done in the last 12 years that didn't include age-varying natural mortality. If I get into a 1 minus M scenario; what M do I use to apply to that simple rule? Back in '96 and '98 when that was done, M was commonly just one value used in the stock assessment. Now we also have the ability for M to vary over time. If I apply that M; so now what M do I use?

Do I use the M I might have thought occurred ten years ago or do I use the M that maybe I think it will occur now or do I use an M that maybe I think is more representative of the stock as a whole? We don't right now see many stocks with time-varying M, but the models are out there and they are being used in some assessments.

Another thing is that our assessments are much more sophisticated and they don't just include a single M. We may have a Bayesian-type framework where the assessment inputs a range of Ms across a certain range; and all of those are really in the assessment and they are forming our estimates of uncertainty.

There is no single M that we can associate with this particular assessment and this particular stock. Really, what this is summing up is that there has been a lot of change in the science and our understanding of these fish populations; so the simple rule of 1 minus M actually ends up being very complicated to apply. That is the M issue.

The other thing to keep in mind is that there is another limit – and this was kind of mentioned earlier – and that is preventing overfishing. Really, what we're trying to do with these stocks truly is prevent overfishing. We don't want to remove too many fish. Within our assessments –

and this is not something that has changed over time – is that we know fishing mortality rates better than we know biomass.

That is just a simple fact of the type of data that we use in tracking cohorts over time. It is really good to get an idea of how fast a particular group of fish born in a particular year is declining over time. What is not so easy for us to understand is exactly how many of them are out there in the population. Throughout assessments we know F better.

We are more precise in preventing overfishing than we are in biomass. That means that we may have a little more confidence when we say a stock is overfishing versus when it is overfished. There is going to be more uncertainty around that overfished. Also, for any stock, there is an F for any fishing mortality rate.

The stock, if it is kept at that fishing mortality rate for a time, is going to reach some biomass level. That is its equilibrium level. Keep in mind that we're preventing overfishing, so we have an Fmsy that equates to overfishing; but say that is 0.25. The council is going to target a lower fishing mortality level, because we want cushion from overfishing; so we're going to be at somewhat lower F; say 0.2.

The lower the F the higher the B; that means our biomass is going to be a target; it is going to be even higher than what we would expect it to be at MSY. There is kind of a cushion in there when we are fishing at optimum yield or some target F that gets us even further away from MSY in the good direction.

If we're managing this stock well and we're preventing overfishing, MSST shouldn't be a concern. We shouldn't have to worry about pulling that trigger. That is how it works out; it tends to be a concern when we first time do an assessment, and we realize we've been overfishing and stock is overfished, so now we've got to put in this rebuilding plan.

That brings us then to with all of that, why are we looking at changing the default MSST? This has gone back to a number of stocks; and for the reasons I mentioned dealing with the uncertainty in the stock assessments, dealing with the estimation of M challenges; that we've had a few stocks where the council considered and the SSC supported doing a alternative to the 1 minus M.

The value of M; that is the big question. The better understanding of assessment uncertainty though is also very important. As I said, really the assessment uncertainty today; scientists will tell you we think it is a lot bigger than what we probably thought 20 years ago in 1998 or 15 years ago or however long it's been.

We have a lot better understanding of these populations and the data sources. The progression over time has been much wider uncertainty around that. That means that how well we're estimating B; there is a lot more uncertainty around it. We've also seen that biomass estimates; they are going to vary across assessments. I do an assessment now; I do another one in a couple years; I may see those biomass estimates change a bit, 10, 15, and 20 percent even.

As a scientist I wouldn't think that is unreasonable. It is certainly not beyond what would expect; and often though in those cases the fishing mortality rates are much more stable. It is

just getting a handle on how many fish are out there in the ocean is really hard. You have that estimating; and what happens though is that I have an MSST with this 1 minus M.

If my M is pretty low; say it is 0.1 or 0.5; I am only allowing 5 to 10 percent variation between the MSY and when I declare that stock to be overfished. What this can do is lead to you just a vagary in estimation some slight difference in landings' history or the assessment takes a little bit different solution; and suddenly now I have a stock that maybe I decide is at 92 percent to 89 percent of SSBmsy.

Well, if I've got a stock at 0.1 on M on that, am I going to decide, okay, that stock is overfished or not. It is such a small little bit of cushion that you have in there; it is a very small measurement, precise measurement you are trying to take. In many cases the uncertainty across these assessments, if you look at the sensitivity runs, if you look at the confidence bounds on our core estimates; 20 percent is not unreasonable.

Then across various model configurations, it should be very great, it could be even greater. The problem you get in, therefore, is that I have this uncertain measurement of stock biomass, but I'm trying to use this fairly precise ruling – this ruler of only a slight bit of difference between SSB and when I declare the stock overfished – to make that declaration.

We all know that declarations of overfished are pretty severe; they trigger rebuilding. We see a lot of stocks, though, they can rebuild themselves pretty quickly. They can rebuild themselves at OY type of fishing mortality rate levels. By ending the overfishing, in most cases we're going to drive that stock in the direction we want, anyway.

For a lot of stocks, the rebuilding doesn't become a big deal, but in others it does. We want to make sure that when we declare a stock overfished, it really is and that it is not, well, it kind of looks like the assessment depending on which configuration you take. Blueline tilefish gave a good example of that.

One determination of MSST is it is not overfished but in another one it is; and the difference is very slight. You could pick a different assessment configuration with something that didn't seem to make a big difference and decide that, okay, the stock isn't overfished. I don't think anybody wants to be in that situation where you kind of feel like, oh, man, if I choose this I'm overfished; if I choose that it is not overfished.

That is one of the reasons we don't look at any of that stuff when the scientists are making those recommendations; but it does sort of put the council and the advisors like you guys in kind of a tough spot when you may see outputs that show, well, here is another configuration that seems just as good as that one; I am not overfished.

These kinds of things on the fence are a real problem; and that is when all this uncertainty really comes to bear. When the Ms are very low, that uncertainty can really wreak havoc with your stock status determinations. That led to looking at different modifications; and it is kind of built on history and it is kind of just dealing with more of these low M stocks. We looked at doing a bound at 75 percent of Bmsy rather than the 1 minus M.

Really, all that does is say, well, we'll have a range of MSST anywhere from half to 75 percent of the biomass at MSY. It could be SSB; it could be some other measure; I'm just using Bmsy to reference all of those different types of biomass measures we might have. If I have a stock with a high M – and we really don't have many in the South Atlantic that come to this 0.5 level, but the lowest you would ever let Bmsy go before you declare the stock overfished is half.

But then if I have a low M stock, I'm going to allow as much as a 25 percent difference between Bmsy and MSST, before I declare the stock overfished. Essentially what this does is it kind of addresses the assessment uncertainty and gives us something that is a little more realistic and reflects the level of uncertainty that we have in the various estimates.

Now the stocks that are in between, they are still going to be determined by M. The first thing you're going to notice is, okay, that doesn't deal with all of the M estimation issues, because I'm still going to have stocks where I've got an age-bearing M and I've got a variety of Ms that were used in a stock assessment; and the SSC is going to have to decide, well, what M do they think should be used for 1 minus M.

That is something that we'll have to cross, but at least we're dealing with the bigger issue, which is the actual level of assessment uncertainty that we observe. As I said, the SSC has supported this. They looked at it for a number of stocks and have done it. I think that is probably one of the reasons the council went ahead and suggested just an across-the-board alternative to address it.

It avoids some of the issues with the SSC potentially making, well, we think 1 minus M in some stocks isn't the best considering the uncertainty, so we would like to go to 75 percent; but if we have kind of just default of 1 minus M, then it can look like maybe the SSC isn't being as precautionary as they should.

They are also recognizing that preventing overfishing and that is the core of much of our management; it should reduce reliance on that MSST to drive management, as I said earlier. We would rather not be pulling that MSST trigger. We don't want to hit that limit. We want to prevent overfishing, keep our biomasses well above MSY in most cases, in reality; but there is going to be some uncertainty between what the biomass is in reality and what we're measuring the biomass within our assessments; and we can end up with pretty wide confidence intervals.

The other issue, as I mentioned, is that it is often an issue with the first-time assessments. Uncertainty is greatest when our understanding of the stock productivity is at its greatest. I think that is probably why we're looking at this; we have so many first-time assessments. This is a bigger concern for us than the Mid-Atlantic where every stock has been assessed repeatedly.

They are very unlikely if they prevent overfishing to end up with an MSST situation, so it is much less of a concern for them. We've only assessed about 15 percent of our stocks. We're likely to see this come up over and over again. The goal really of this option as sort of the last thing is that we're trying to prevent declaring a stock overfished when it may not be, particularly when we're dealing with borderline biomass levels.

If I've got an assessment with an average of 20 percent uncertainty and how well I estimate SSB; am I good using a ruler that only gives me a little bit of like 10 percent to work with in terms of

how precise I'm measuring it? That is the bottom line; and I guess now I'll just see if there are any questions or any further discussion on this. I hope I've sort of shed some light on the MSST and where the scientists have been and how this ties in with the assessment uncertainty and the natural mortality.

MR. JOHNSON: Thanks, John, for that clarification. I'm sure we have some questions.

MR. ATACK: I've got several questions. The last thing you mentioned was that the Mid-Atlantic Council is way ahead on their stock assessments; why is that? Why are they so much further ahead than the South Atlantic?

MR. CARMICHAEL: Because they have I think 8 to 12, 15 stocks that they manage. The biggest thing is just the small number of stocks relative to what we manage. They have the SARC program, which goes back – it predates the SEDAR by quite a few years. We just didn't have as organized an assessment approach in the southeast 20 years ago before SEDAR.

MR. ATACK: The other question I have is it is kind of really hard to get a feel for what all this means the way you kind of blow through it without real examples. I think red grouper was one of the species that you just changed to 0.75 with the blueline; right?

MR. CARMICHAEL: I think red grouper had 0.75 back when we did the rebuilding. I thought it was one of the examples where we had already implemented 0.75 actually.

MR. ATACK: Right; you were using that instead of 1 minus M for red grouper earlier. I guess it would be good to see some examples of running through the stock assessment and if you did and you did that how it would stack up. You're talking about variable mortalities. I mean, are we talking about 0.1 versus 0.11 or are we taking a 0.1 versus a 0.35.

It is really hard to get a feel for how variable these mortalities are that you are talking about. You are much closer to it. You've seen it a lot; but I don't have a real good feel for it based on – you haven't gone through any real examples with how this could change and work.

MR. CARMICHAEL: In terms of the range; if you have a stock where they apply the different rules of thumb for measuring natural mortality and they come up with a point estimate a 0.15; it is probably, I would say, the smallest range you are going see then applied across the assessment when they do the uncertainties and when they do the sensitivities.

If it is 0.15, they are going to use like 0.05 to maybe 0.3. The range of Ms that you are going to see in most of the stock assessments is probably going to be around 0.2 across M. You are using a range in those sensitivity analyses.

They normally do a high M low M; and then they do an approach where they do a bootstrap-type thing where they estimate the uncertainty and they pick from a range of Ms. It is going to be a range that is greater than this – it is going to be around 0.2 for most of them for that interval.

MR. JOHNSON: Myra is going to pull up Amendment 21. It has got some tables on it to look at.

MR. CARMICHAEL: I think the point is it is not like we're looking at an M from 0.11 to 0.15. It is much greater; and that is where I think this becomes relevant.

MR. ATACK: One other question while she's pulling that up. When you went through your presentation. you had the one-half MSY as one of the options in the ten-year rebuild plan and the 1 minus M. How does the one-half MSY – how would that number compare to like 1 minus 0.7?

MR. CARMICHAEL: The 1 minus M is the other end of the spectrum, the 0.5. The 0.5 is where they decided if you had a stock like -- I don't know, a shrimp probably has a natural mortality rate of 0.8 or higher. If you have a stock with a very high natural mortality rate that only lives to be 1, 2, 3 years old; you shouldn't go below half of that Bmsy level – of Bmsy, biomass at MSY. You shouldn't go below half of that even if you have a stock with a very, very high M. That is the other end of the spectrum. That is not something that we really deal with in the South Atlantic, because so many of our stocks tend to be much longer lived than that.

MR. ATACK: But I wasn't asking that. The presentation had one-half MSY as one of the options and then a ten-year rebuild plan and then a 1 minus M times Bmsy. I was wondering how the one-half MSY would compare to the 1 minus M times Bmsy.

MR. CARMICHAEL: That is probably a lack of clarity there, referring to one-half of the biomass at MSY and not one-half MSY. All of this is referring to the biomass levels at MSY.

MR. HULL: As far as the natural variations in recruitment of one of these species; is that pretty much assessed and predicted and the way it seems to me that it is already calculated somewhat by the SEDAR assessment; that this is so tight that even with what is already predicted and variation in recruitment that is throwing it into the overfished status; just kind of it is going to because you are already saying it is going to by predicting the natural variations in recruitment.

MR. CARMICHAEL: Yes; actually I would say that we're learning an awful lot about what type of variations we see in recruitment and particularly the type of variations you see in these stocks which present somewhat of anomaly in that they're maturing at ages five or six and then living until age 50.

We just don't have a lot of experience in dealing with these stocks which reproduce for 40 years and understanding why. My personal opinion is that I think it is because those stocks only very rarely give you these really good year classes. I think their recruitment is very episodic and not very consistent.

Yes, you can get one of these stocks where you are kind of waiting for that good year class and it carries that population for five or ten years when you're not overfishing; and during that time your biomass is kind of going down. We know that a lot of times these stocks are capable of producing very large numbers of recruits from relatively low biomass, which it is kind of contradictory to a lot of the theory at the time of the 1 minus M.

We are expecting those stocks to have good stock recruitment in relationships and you really need to maintain that biomass out there to ensure your productivity and those things; but yet we tend to see these stocks that produce these surprisingly large year classes from small numbers of

parents essentially and have a difficulty fitting stock-recruitment relationships to these. That does then play havoc in our efforts to determine if this stock is truly overfished or not.

MR. HULL: Just one follow-up on that; by changing this MSST threshold, you are kind of taking it so tight with the natural variability; you are loosening it up so you just don't throw into the overfishing status when it is just a natural variation occurrence.

MR. CARMICHAEL: Exactly. You don't throw it into the overfished status when maybe my population is just sort of trending down some; but maybe in the next five years sometime I am going to get that good year class. Maybe I get two in a row; maybe I get one over 20.

MR. HULL: There was some talk of maybe changing the vocabulary on this as to the stock is in decline or the stock is increasing rather than due to natural occurrences rather than overfishing effort on it or from human effort of harvesting.

MR. CARMICHAEL: There is some talk about that; and that is where the SSC has commented and I agree that preventing the overfishing; once you do that, you put yourself in position to kind of see how those things are going to play out over time.

MR. PERRETT: Could you elaborate a little bit more on the science around determining that M for the longer-lived species. You mentioned the rule of thumb, so elaborate a little bit about how you go about determining what the M is for some of those species.

MR. CARMICHAEL: The underlying theory is that if I know how long an animal can live, the maximum age it can reach, the oldest individual I see; that gives me some idea of how fast they will die just from natural causes without fishing going on. What happens is that very long-lived fish – and there is a pretty simple equation that equates the maximum age you've observed back to the natural mortality level.

That leads to always a simple equation has a lot of fine vagaries within it about if fishing has gone on, am I really seeing the maximum age an animal can reach? But the underlying theory is just that if I see something like a shrimp, which lives to be a year versus a Goliath grouper which lives to be 80; then clearly the Goliath grouper are dying much slower from natural causes. A much smaller percentage of those are dying each year from natural causes or else they wouldn't live to be that long.

MR. PERRETT: Yes I understand that; but again the M wouldn't equate to 80 years for a Goliath grouper; it is going to be something less than that. I am trying to understand a little bit more about the science of what are the other factors you apply to get to the final number that you use.

MR. CARMICHAEL: What they will do is try to see what is the oldest fish that has ever been aged through all of the samples collected. If at all possible, they would like to have samples back in time from a time when there wasn't a lot of fishing, because you want to get as close to there being no fishing; that usually isn't the case.

You end up with an oldest fish observed, which may or may not be the oldest that species can inherently reach if we've been catching them. That is when you get into the debate of, well, how

good is the sampling? We all know the person who smoked three packs a day and lived to be 90 years old and then the person who didn't smoke and died at 30, so there is a fair amount of individual variability.

The debate that goes into it is if I see one fish at 60; does that mean the population can reach 60? If I see one at 60 and three at 40 and nothing between 40 and 60; do I question the age determination of that 60? Do I think they could really get to be 40? Those are the kinds of arguments that the scientists have when they are trying to make these determinations.

They will consider where it was sampled; they will look at other regions. If a fish in the Gulf of Mexico has been aged at 40 and in the Atlantic aged at 20; is that because of different environmental conditions they can't live as long or is it just fishing mortality differences or sampling difference or what have you.

What they will do is take all these different pieces of information – and there are about maybe ten different equations right now for estimating natural mortality. They consider the different equations for relating it to how long the fish live, some that incorporate growth parameters so the idea of something that grows faster tends to not live as long, a mouse versus an elephant type of argument.

There are ones that incorporate temperature, because the temperature at which an organism lives can affect its longevity. Polar things tend to live longer than tropical things across different ecosystems. There is a whole range of them where someone has decided they have a good idea and they have an equation that works.

We've done equations that incorporate all types of animals; and then there is one that just looks at finfish. There is one that just looks at temperate finfish. There is one that looks at fish and shellfish. There is a whole range of them. They end up making all those kinds of arguments, and it really varies from stock to stock based on the data that you have.

It is an interesting part. If you come to a SEDAR and sit in on a first-time data workshop when they're discussing it, it can be some really interesting debates over a fish or two. It may come down to an otolith or two and how well it was interpreted. Was that really 60? Jimmy mentioned something about this radioisotopes and this balm aging as a way of validating ages.

That is something that revolutionized a lot of this, because it tended to give people confidence in reading a little tiny bone for 60 different intervals or 80 intervals; seeing those balm marks on them has really validated some of those readings that 15 years ago people would have said there is no way that fish lived that long. I don't see that many marks. That is another type of argument you'll have; well, has anybody ever validated this? What does the balm aging tell us about how old this particular individual was?

MR. JOHNSON: Thank you, John. Any other questions?

MS. BROUWER: Okay, so here is Amendment 21. This is the one that you all were asked to comment on prior to the March meeting and then the council approved it for submission. There were three alternatives. The first one is always no action. This is where the MSST equals SSBmsy times 1 minus M or 0.5, whichever is greater.

Alternative 2 would change that to 75 percent of SSBmsy; and then there are three subalternatives that basically apply that change to species with a certain range of M. Subalternative 2A applies that MSST definition to species that have an M of 0.15 or lower. Subalternative 2B would apply to species that have an aim of 0.2 or lower.

The one that the council chose as their preferred was Subalternative 2C, which would change the MSST for species that have an estimate of M of 0.25 or lower. Then there was another alternative that was analyzed for the council's consideration that would change the MSST for these select species to 50 percent of SSBmsy.

MR. CARMICHAEL: Let's just pause there for a second. The way to think about this is that it is saying that for Ms that are very low, essentially we're getting into this assessment uncertainty as becoming more of a concern. We don't want the MSST to be any higher than 75 percent of that SSBmsy.

That means that would have been – under the 1 minus M; that would be an M of 0.25. We're saying, okay, if my fish instead has an M of 0.2; instead of letting the MSST be 80 percent of SSBmsy, I am going to put a limit at 75 percent. The justification for that limit, as I said, is largely looking at the uncertainty in both estimates of M and the assessment itself.

It's saying M makes sense to use it for a point; but then when I get to where my MSST is becoming so close to my MSY and so close to my range of variability I'm expecting; that I want to have a little more confidence essentially before I declare this stock to be overfished. I'm saying really 75 percent is probably where – if I go higher than that on MSST, if I go to 80 percent or 95 percent; I am really starting to have some questions whether or not I'm able to measure with that level of precision.

Maybe I should sort of stop my precision at the 75 percent level even for stocks which may have a much lower M. But I'm still preventing overfishing; don't forget that. Fisheries management is really two-pronged. I'm still preventing overfishing; and it is not like suddenly the council is going to be allowed to just set limits wherever they want on these stocks and not have management. You are going to still be preventing overfishing.

MS. BROUWER: If you look at the table that I've got up on the screen, it is a summary table but it shows you the Ms in this column for each one of the species that was considered in this amendment. The SSBmsy, whatever units it is in, and then what the MSST would be under each of the alternatives.

If the council did nothing, Alternative 1 here, these values here would be the MSSTs for these species, which means that if the biomass fell below this number here; then that species would be considered overfished. Alternative 2A, 2B and 2C are the ones that I just explained to you; so 2C is the column that you would look at.

That is what ended up being the proposed alternative that the council submitted to the National Marine Fisheries Service, which means that these are now the thresholds that would determine when these species are considered overfished. Then you can see over here Alternative 3, obviously that is much more conservative; that sets the MSST at 50 percent of SSBmsy.

MR. ATACK: Is the data available to show us like for black grouper where the stock size is, like on the last assessment compared to what you're saying the MSST will be? Do you know what I mean? On these eight stocks here or whatever there was, what you are saying is when you do a stock assessment, you are coming up with a biomass.

I don't know how many stock assessments we've done on each one of these, but each one had a biomass. It would be kind of nice to see what those were versus this MSST to see how close we're getting; just to get a feel for when you look at this table, kind of what we're saying we're changing and how.

MR. CARMICHAEL: That is interesting; and it may be informative; but the choice of MSST, this is really a philosophical discussion about the uncertainties and how you're going to manage the stock. I personally would think it would be very risky to say, well, let me first see what the biomass level is and see which stocks I declare overfished for different levels, because that is really what we try very hard to not have the scientists do, because you don't want to make a decision like this based on an outcome for black grouper.

You want to make this decision based on whether or not this is the right framework approach to apply across the stocks. The real decision is to look at the SSBmsy versus those alternatives. Under Alternative 1, with black grouper your SSBmsy is 5.9 million pounds. Under Alternative 1, 5.0, you are declared overfished, so you're leaving about 900,000 pounds of cushion in there.

Is that adequate for black grouper versus 4.4? We let it get down a little bit lower, but not drastically so, as you can see. It is going to make a slight difference in how much lower you allow your biomass to get but not a huge difference. In the case of blueline tilefish, you're talking about I'm at 543; then I'm essentially at target levels or higher; but at 489,000 pounds, I'm going to declare this stock overfished? That is 60,000 pounds; that is 10 percent.

That is not very much in terms of how well an assessment like blueline tilefish estimates biomass. We shouldn't worry whether or not blueline falls at 488 or 490, because then we're at the risk of making this decision based on the outcomes. It is interesting to see how they fall out after you make this decision; but if there is concern that this panel is not comfortable with letting MSST have a threshold at 25 percent, that you think the MSST should be closer to Bmsy, then we need to know the reasons for that and be very careful not to make it based on outcome if you just size it up. If it does make a difference and I support it; well, we haven't really furthered our decision-making process.

MR. HARRIS: Understanding the M values; because of the fact that I was part of that snowy analysis and we're going to be talking about that stuff coming up; how much factoring goes into the unexplored territories of a fish's habitat? I know that just from that particular assessment there was a very, very small piece of the ocean that was even looked at as far as developing what the biomass was. Do the scientists use anything outside of the remainder of the range where they do exist but were not counted and factor any type of percentage for the percentage of unexplored territory?

MR. CARMICHAEL: No, not really, because you have the data that go into the assessment and that essentially gives you your reference points and your ruler that you're going to use with the MSST value being the ruler. You may factor that into like the overall uncertainty. You may

want to tell the council; maybe the risk is lower with this stock because there are portions of this population outside of this realm; and maybe those portions aren't fished.

Then that may give you some confidence, but that is more like a qualitative type approach that factors into the overall decision process. It is really hard to say, well, you know, we think this is the MSST, but we believe there is more biomass in other places that is not reflected; because you don't know how including catch from those areas would increase your estimates of what biomass is and what it's been over time, which in turn affects your productivity, which then in turn affects your estimates.

You are kind of limited to inferences about that portion of the population that you've actually sampled and monitored and included in the assessment until you get into where you can be qualitative and talk about the risk. If we thought there was a refugia, that could lower risk considerably. That is some of the arguments that the SSC has supported in things like the golden crab and looking at the area that is fished versus the area where it is not allowed to fish. So places that are specifically not allowed to fish and there is stock there; then they are able to take that into account.

MR. HARRIS: If I remember correctly when we were setting on the red snapper, wave 1, 2 and 3 exceeded what the scientists were saying the biomass existed; so that is why I'm wondering if they look outside of the realm. On the red snapper, before we closed it down and we were still fishing them, we got the one biomass briefing; and we had already caught more than what they said existed. That is why I'm wondering if they actually account for what is outside of the survey area?

MR. JOHNSON: I would hope we've made some improvements in the last five or six years.

MR. COLE: John, thank you for helping confuse all of us again. As regards RA 21, when that e-mail transmission went out, I really wish that we had been able to set aside a time for a conference call. I think we would all have expended our energies far more productively with a conference call coupled with that document. As it turned out, it seemed like this whole issue became unnecessarily complicated, and we all teed off on it. Okay, but those things happen. I do believe if we could manage such issues in the future a little better, it would be more productive.

MR. JOHNSON: That is a good point, Bill; thank you for that. If there are no other questions, we're going to take a 15-minute break and return.

MR. JOHNSON: Okay, if we can get started, I was asked by a gentleman to be allowed to give you guys a presentation on these descending devices; so that is what we're going to do.

MR. McCAFFITY: I'm Chris McCaffity, commercial snapper grouper fisherman out of Morehead City, North Carolina. I've been involved in some of the fishery issues for the past few years and learned some stuff recently at the Marine Resource Education Program down in Florida that I went to last year. I went to two different meetings. One of the things that caught my eye there were these descending devices. I brought two examples of them.

Basically they allow you to send fish back down that have barotrauma, that are bloated to the point they can't swim back down on their own. That is where most of your mortality comes from with these fish that we catch in deep water. If they can swim back down, they are probably going to live; but if they are going to float on the surface, they're probably going to die.

That is the whole reason behind Regulatory Amendment 17 is reducing the discard mortality of Warsaw grouper and speckled hind. That is the gist of what I'm talking about today, but these can be applied to red snapper, the grouper and any kind of fish that suffers from barotrauma. In time what I would like to see is that gives us back some of our allocations that are going to dead discards.

The Pacific Fishery Management Council has recently worked on doing that exact thing based on voluntary compliance. This is a fish grip, the Oregon Fish and Wildlife sent this out to all of the registered fishermen that fish for rockfish species, a bottom fish basically off the west coast there. You attach this to your mainline and put a weight on this end.

You sent them down, give it a little jerk and that pops open and releases the fish. They found that if you sent them past ten fathoms they would live or they would make it back to the bottom. They had an 80 to 90 percent survival rate that way; where if they didn't, they ended up with 100 percent mortality rate basically if they floated on the surface.

The thing is that we need to look at that as an alternative in RA 17, so that we can release these Warsaw and speckled hind, any of them that we do accidently catch, and in the process do some tagging studies to collect data. This is some of the information out there that Myra just brought up.

I hope a lot of you and all of you got a chance to look at some of those links that I provided in the summary that I sent. It is something that is an alternative to closing down massive areas through marine protected areas and really rushing to do it through a regulatory amendment process and using what the council has testified before Congress to be fatally flawed data.

They just don't have enough data on those two fish to know what the deal is on them. Looking at the little form they gave out earlier; there are less than 900 fish basically between the Warsaw and the speckled hind that are being released each year. It is not that hard to get the fishermen to do something like this.

Anyhow, the expense of it has been brought up. This is about a ten dollar device. What it is is the rubber band on there. If you have a bigger fish and more weight, you can just take another wrap with a rubber band or put a bigger rubber band on there. You can adjust it to size there. If you don't mind, I will just pass this down and let you all take a look at it.

This is another one out of Florida called a Sequalizer. What it does is that pops open, clamp it onto the jaw of the fish and then snap this on your line. This can be something that is just left on an L bar on a bandit reel boat; and it is just a permanent thing there that is not in the way. If they have a fish, and it could be any fish with barotrauma, send it back down on the way down with your next bait and your next drop, so you're not really losing any fishing time, in particular with your bigger fish. When you have a 20-pound snapper or something like that; you just don't want to see that fish die if you are not allowed to keep it.

I don't know any fisherman that would not take a minute to make sure that fish will live. You get down to some of the smaller fish – the key to doing it where you are going to do it on almost all the fish is that you don't have that many that you had to do it with. You don't have so many regulatory discards. But this Sequalizer; that is about a fifty dollar option there.

It can be something as simple as a single barbless hook, and use that with an appropriate weight; send them down. When you stop reeling, give them a little slack and they'll come right off. That is exactly the graph I wanted, Myra. That is showing at the surface, once you get down past 35 fathoms, almost all of those rockfish – I would like the note that the rockfish on the west coast have a very similar life history and anatomy as our snapper grouper species over here; in particular the Warsaw and the hind.

Then when you start releasing them with those other devices, get on down there; different ones have some different things, but I guess as low as 60 percent there; as high as 95 percent survival rate. That is much better than 100 percent loss, anyway. What I'm asking is that as an alternative in Regulatory Amendment 17, we had this as an option.

Then we take some time and look at marine protected areas and how we can set them up so that they'll have the most positive benefit for the most different species with the least negative impact to the fishermen. By closing small key areas – and I've talked with Dr. William Heyman a little bit about this, and he is the one that really persuaded me that these small spawning aggregation sites and protecting those would actually have quite a bit of benefit for the resource I think.

I would like to see if you are going to do that; with any kind of a small closure, offset it with equal areas of new artificial reef habitat that fishermen can work on and also look at artificial reefs as an alternative for your MPAs in some of the existing sites. If you want to take some sandy barren bottom and make a marine protected area out of that; there is no loss of traditional fishing grounds; and I don't think you'll have much, if any, opposition from the fishermen on that; especially if you're going to ease up on some of the other regulations in the process, showing that you've closed these areas, you've protected some of the spawning stock; so now we can ease up in another way on you.

I hope everybody got a chance to read that summary and kind of know what I'm talking about here; but I really wanted to take some time to answer any questions, too. If anybody does have any question, please let me know and hopefully that will kind of get the conversation going a little bit.

MR. JOHNSON: Thank you, Chris. I have a question. These are just two devices. I know there a bunch of different kinds. Cost is always an issue with fishermen. The first one that came by me looks like something my guys would tear up in about a week, to be honest with you. Yes, that one.

I haven't seen the other one yet; somebody may have put it in their pocket. You told them it was worth fifty dollars; that might not have been the right thing to have done. I think it is coming this way. How many devices are on the market? I know there is a guy in Florida that has got something that is real simple; and I think he was at the port meeting and made a little presentation on that.

MR. McCAFFERTY: That was probably the Sequalizer coming around.

MR. JOHNSON: No; it is something he makes himself, but it looked like it would put a pretty big hole in the jaw of a fish to use it.

MR. McCAFFITY: You're right; something like that, I don't know how durable that is going to be. I am actually going to work with Chip Collier and some of the North Carolina Division of Marine Fisheries staff on some research this year on that to kind of get a better feel on how many fish you can release. The key is that you aren't going to have to use it on every fish. If a fish is going to swim back down, you want to let him just do that on his own.

You want to handle him as little as possible. If he is going to float off, then that is when you use it. But the single barbless hook and a weight, it doesn't get much cheaper than that. If you can afford to go offshore and fish, you should be able to spare one hook and a weight to make sure that you send these fish back down and they're going to live.

MR. FEX: To answer your question; I think there are about five different things that they're using. They've got a couple like egg crates or a milk crate was an idea they were using and like a half net with round weights where they would throw it over on top of the fish and it would take it down that way. Then when they pulled the net, it would just come off the top of the fish. I was at that education program; and there were about five or six different ideas they already had.

MR. JOHNSON: Thank you, Kenny. Do we have any other questions for Chris? I know for me it would come back to simplicity of use and cost.

MR. McCAFFITY: That is going to be the key is keeping the cost down and making it easy to use and proving to the fishermen that it is going to work. I think that is what they did – I know that is what they did in Oregon where there was some skepticism. I actually went out to Moray Bay, California, two summers ago and talked to some fishermen.

I believe the Ocean Conservancy was doing some studies there at that time. The fishermen were very skeptical at that point. They said these fish with their eyes bugging out and their stomach sticking out of their mouth; there is no way they're going to live. I said the same thing; I said, yes, those fish are done.

But if they are doing this research, they're showing – and the videos that I posted on that summary show their eyes going back in their head, their stomach going back in their mouth, and they tag these fish so that they can do long-term studies and show that they had upwards of 90 percent survival rate for some of the fish.

It is amazing that they can do that; but they are apparently very resilient. I think we should make every effort to make sure those fish are going to live, if we're going to do it. Kenny was right; there are half a dozen different devices that are out there, just depending on cost and all that and how bulky they are. Some are better than others.

MR. BROWN: Well, most of us in this room are pretty resilient and we can probably make our own, right? If you were looking at this over the broad spectrum for everybody, then you would have to have something like this for the recreational private sector or something. I think it is a

good idea. I think it is a way to decrease mortality. I always thought about creating something like that just with barbless hook and start using that. It just seems like a good idea to me.

MS. VON HARTEN: I just wanted to mention there is this website that Myra has pulled up. Florida Sea Grant has a really great website called catch and release fishing; catchandrelease.org. It has a lot of the information about some of these descending tools and some cool videos down the side there on the right of some of the devices in action.

Then last week I went to a workshop when I was down in the Keys that Florida Sea Grant put on another fisheries management and regulations workshop. Bryan Fluech from Florida Sea Grant out of the Naples office, I believe; he did a whole presentation on this; and, yes he had at least five or six commercially available ones, but then he had examples of all the different homemade ones; really easy things to make. If anybody wants some of that information, I can share that with the AP.

MR. JOHNSON: I do have a question. Is the Pacific the only place that has a requirement or is there any council that has made this like a mandatory thing that fishermen have to have these? No mandatory; okay.

MR. McCAFFITY: I don't think the Pacific, it is mandatory either. I think they did it voluntarily. They got voluntary compliance and they were able to quantify that voluntary compliance to the point now that they are going to give back significant portions of several rockfish species quotas that were allocated to dead discards back to the fishermen as a reward for being responsible with the resource.

MR. DeMARIA: I don't think there is any doubt that it is much better to bring a fish down naturally either with one of these devices or swim it down than it is to jab a knife in its side and let it go on the bottom. I've dived down where fish have been vented and they're lying on the bottom very negative.

It takes them a while for the swim bladder to heal up and fill up with gas again. Some of them do get infected. I think it is a good idea. As far as the MPAs, I talked with Terrell about this; and he brought up something similar to what you just said. If we're going to take areas where there is like known spawning areas and close them down and make MPAs out of them; then we ought to go off somewhere in that general area and create new areas that people can fish. That is different than creating an artificial reef on a sand bottom and designating that as an MPA. It is kind of like compensating people for what has been taken away. I think that is a good approach. I like that; I think that is a real good one.

MR. McCAFFITY: I agree. Yes, I think that is something we really need to look at, because with these MPAs, it is not just about the fish, it is about the habitat that we want to protect. We need to think about that. If the goal is just for the fish, then the artificial reefs are actually going to be a great thing. If you design them right, you will attract fish and you will be able to protect them.

MR. MUNDEN: I think the use of descending devices has a great amount of potential. I think a lot of public relations and public education is needed. But not wanting to speak for Captain Gould since he is not here today; I would point out that he sent an e-mail to Chris pointing out

the problems that he would have using descending devices on his headboat with so many passengers on board.

At the port meeting, which he attended and I also attended; he leaned over and he said, "You know, I don't allow any reels on my boat larger than 40. I said, "Why is that?" He said, "You bring the fish up slow; you don't have the problem with them bloating like you do; and so that is my solution because I hate to see fish float off". Again, this is not a save-all for all of the fish, because there are some problems that could be associated with them.

MR. FEX: Were any studies done in the Gulf – could Amber or Chris answer that – with these descending devices since we're somewhat similar on species and it might be a little bit helpful?

MS. VON HARTEN: Yes; that one video that Myra just showed was from a study; and they used it on red grouper. I know Florida Sea Grant has been doing some of the research on the Gulf side.

MR. SMITH: Dr. Chris Lowe in California has been doing extensive work on this and has videos, too. It makes sense. Where do we get to the point where we say, well, we make a motion that we suggest that – when do we get to that point?

MR. JOHNSON: I think that is where the conversation is going. Is this something that the AP wants to go to the council and say we really think this is a valuable tool and it needs to be looked at especially for deep water species? Voluntary compliance is great, but a stick works better sometimes.

MR. SMITH: I also did see Terrell's e-mail, and I kind of understood where he was coming from; but I can tell you right now he is the same guy that is going to ask you what can we do to keep these fisheries open? It is change; that is what it is going to take; it is going to take change. The thing is we don't have a device that we can suggest; but we have a method that seems to be proving itself to be worthy to reduce the discard mortality.

MR. McCAFFITY: I would like to address Terrell's comment there real quick. If you are going to do this for Warsaw and speckled hind, I don't know that he has caught one ever on that headboat. It is not going to be a matter of him having to do 70 fish at a time for this particular species.

Even when you get into the red snapper and the grouper, each stop there may be a couple of fish. Again, you don't want to release a fish if he can swim back down on his own with any extra handling through the descending device or poking a hole in them, as Don said.

That has some pretty negative impact. I never thought venting was a good idea; but I am convinced after seeing the research and the studies that have been done; and I'm hoping the studies that I helped with this summer are going to prove that it works here on our coast and in our area.

MR. JOHNSON: I don't think anybody is disputing the fact that they work. The speed of which things happen at the council level, if the group wants to make a motion today to have them look into this, it might happen in six years. Sorry!

MR. FEX: Well, I was looking on the timeline on this MPA amendment and we've got plenty of time. By the end of this year, we ought to have the study complete with the descending device by the state of North Carolina. If we could at least instead of kicking it down the road, maybe put it in the council's mind since the study is already going on. If it does have benefits like Chris shows – and I believe it has benefits, too – I think we should consider it.

MR. JOHNSON: Is that a motion?

MR. FEX: Yes; I would like to make a motion that the council consider require the use of descending devices as an alternative to lessen the discard mortality rate on deep water fish in all sectors.

MR. JOHNSON: Do we have a second?

MR. BROWN: Can I add something to it?

MR. JOHNSON: If the maker of the motion will accept a friendly.

MR. FEX: Yes.

MR. BROWN: As a consideration along with this, ask the council to consider eliminating punching the fish with a knife or venting them. Does that not sound reasonable to put that in as a consideration? I hate to stick anything in them anymore, anyway.

MR. JOHNSON: Well, we still need a second on this motion.

MR. SMITH: I'll second the motion.

MR. JOHNSON: I will say this about venting; I am not a huge fan of it, but it is effective. We've had tagged fish recaptured in Florida; red snapper that we vented. If it is done properly, the fish do survive. It beats the option of throwing them back and letting them float away in the tide. I am not arguing that descending devices aren't better. What you're looking for, Mark, is to put into the motion outlawing venting? I'm not clear.

MR. BROWN: I'll make a separate motion; leave it separate and then that way –

MR. JOHNSON: Okay, Myra, can you read the motion?

MS. BROUWER: The motion reads council consider requiring the use of descending devices as an alternative to lessen the discard mortality rate for both commercial and recreational sectors.

MR. JOHNSON: Is there anyone opposed to this motion? One opposed; the motion is approved.

MR. BROWN: I want to know why Rob was opposed to it.

MR. HARRIS: Well, for several reasons; one is you've got folks out here – getting back to Mark; right now we're not required to vent in the South Atlantic unless I'm doing something wrong. Am I doing something wrong, because I don't vent. I fought against the venting tool use in the Gulf of Mexico for the fact that people are killing the fish when they are stabbing them to send them back, which that is, as I understand, going to be repealed.

I don't know that there is enough information coming out of this, because of the fact that the majority of time when I'm catching fish; the ones that I'm looking to vent or use some sort of descending device with; I'm talking 6, 700 feet. How deep have they been doing the studies? I looked at the videos, and this is all relatively shallow water.

MR. McCAFFITY: Well, the snowies were out in I think 350 feet; and on the west coast they did do some that went out to about 500 feet. The size limit doesn't really have the impact as much as the closure. If a fishery is closed, you're going to have bloated fish in 20 to 30 fathoms in some cases. It is not always going to be that deep.

They are showing that it works on the snowies on our coast here. I agree there needs to be more research done, and I don't dispute that; but I think this is a good step in the right direction. I like this proposal here; but I would like to stress, too, that the reason I came today was to present an alternative solution.

Basically the NEPA alternative; stakeholders are allowed to offer solutions to mitigate negative impacts. There is going to be a severe negative impact with some of these marine protected areas that are being proposed, especially if all of them are enacted. I am not saying marine protected areas are bad, but we need to really take our time and think it through.

This is in my mind a way for us to have an alternative to these massive marine protected areas as we really take the time to look at how can we do it right so it benefits as many fish as possible? I would like to see a motion – and I am not on the panel, but that this is an alternative. We recommend that the South Atlantic Fishery Management Council have an alternative in RA 17 requiring the use of descending devices on Warsaw grouper and speckled hind; and then step back from the marine protected areas for a little bit as we do take that time.

MR. HARRIS: Okay, we know that there has been a little bit of study done on it. I am not against descending devices by any means, because I would like nothing more than to descend fish down and catch them again. When they originally came out with the rule about venting the fish in the Gulf, it sounded like a good idea and something that should be done; and they did it.

Then years later they came back and said we're killing more fish than we're doing anything with. Before we make all these fishermen go out there and start spending their money to buy something, because these things aren't cheap – if I look at the sash weights that I use when I'm offshore, my sash weights and leads are as much as one of these are.

Anytime I had the potential to be throwing a hundred dollars worth of descending device gear over the side of the boat, that goes into factoring into my bottom line as a charterboat; let alone a recreational fisherman that does it twice a year. I would like to see some other studies done on it to find out if we're sending these fish back down into 500 feet, are we actually saving these fish? Don is a hunter. I guarantee you he has hit a lot of things that ran off and died somewhere else.

Just because you see them go down and they keep swimming, it doesn't mean they go down there and live. Before we make it mandatory for two or three million people to have to go do, I would like to make sure that it is effective.

MR. DeMARIA: I just want to make sure I understood the motion I just voted for. It wasn't really the use of descending devices as an alternative to MPAs. It was just an alternative to lessen the discard. There is no MPA in that motion; it is a whole separate issue. I would not want it to go to the council, well, these guys would rather have descending devices than MPAs where there are known spawning aggregations or something like that. It is two different issues I think here.

MR. JOHNSON: That's right. Mark.

MR. BROWN: I want Jimmy to address something that he told me that I wasn't aware of. It kind of threw a little bit of confusion into what I was thinking.

MR. HULL: He was talking about – and I'm listening to Rob talk about in the Gulf where they want to rescind the venting tool requirement. You spoke on it briefly. In the last couple years we have tagged hundreds upon hundreds of red snapper in all depths, and we've recaptured these fish and vented all of them, obviously. We tagged them and recaptured them, lots of them several times over again, and vented them again.

I disagree with the fact that – it was either that study and we're able to do it better than – I guess you are saying the general public is not venting them properly, and that is the argument that they are killing them? If they didn't attempt to vent them, they were probably going to float off anyway? Maybe they need more training in venting, and we might be a whole lot better off. Venting works if it is done properly; we have proof of that. That is all I wanted to say.

MR. JOHNSON: Mark wanted to follow it up with a comment?

MR. BROWN: Jimmy and Robert are telling us that venting works on a level; but I do know that there are people that go offshore that don't know how to vent the fish. Probably a lot of times fish are killed; so which is the lesser of two evils? We're looking at two different ways to try to reduce mortality. I'm just thinking we're trying to figure out a way to have another alternative, I guess is what I'm saying; but what is the best way? What is the easiest way for somebody?

MR. HARRIS: I think that I touched on this with the e-mail response that I sent out before the meeting. I would like to hear from somebody in the scientific community that if this was mandatory; would it actually change mortality that they use? Right now as far as even recreational numbers, as far as how many they catch they don't use, let along whether or not they have this on board; are they going to use that to lower mortality?

MR. JOHNSON: That is a good point. I do know and I think Dr. Koenig was talking about taking fish down with a descending device. Actually I think they put them in a trap or something and dropped them down; and it was in fairly deep water. He said even some of them that looked like they were just graveyard dead, when you get them back down to that depth, they come back

around. I think obviously there is a purpose – a utility to use Ben's word – in pursuing this or at least looking at it. I'm not saying mandatory, but I think it is a step in the right direction.

MR. SMITH: Chris Lowe has done studies to the extent of not did they make it down and swim away, but how long they survived after that. There is a big percent that have survived. Now, going back to the venting issue and what Jimmy Hull had to say over there; I am with you on that because I have been following the tagging of the red snapper.

You are just up the road from us. If I'm not mistaken, it was just a few years ago when longliners in the Gulf of Mexico couldn't use their longlines because they were killing too many sea turtles. What they did was they started doing workshops and longliners had to come to those workshops and learn how to release sea turtles properly.

Now, economically that was probably feasible, because there aren't that many guys out there doing that; but that is what it is all about. It is all about education; it is about us doing the right thing; and it is about changing our habits and making better, wiser choices. This is going to take some time.

MR. DeMARIA: I would like to go back to what Jimmy said. He is absolutely right; it does work, especially when it is carefully done. I think there is a difference between – you're going to like this one – venting a Goliath grouper with a .22 rifle – this is done – and carefully venting a red snapper with some type of hollow tube type thing and a descending device.

I think the descending device is probably the best of all of them; it doesn't damage the fish at all. There are different ways of doing it; and it depends on how you're doing it is going to be your success rate, and, of course, the depth, too. But Jimmy is right, it does work; but I think there could be better ways of doing it, too.

MR. JOHNSON: Well, we had a good discussion; I think a worthwhile discussion. If there is no opposition, if no one else has anything, we're going to move on. Thank you, Chris.

MS. BROUWER: What I would like to do is walk you through Regulatory Amendment 16; so this is Attachment 2A in your briefing book. As I mentioned earlier, this is the amendment that is going to readdress the prohibition on the use of black sea bass pots during the right whale calving season and large whale migration from November 30 through April 30. That closure was put in place through Regulatory Amendment 19.

The council at the time really wanted to adjust the ACL for black sea bass. The ACL increased substantially as a result of the stock assessment. Black sea bass are doing well; they are not undergoing overfishing, and they are not overfished; and they have rebuilt; and so the ACL went up accordingly.

However, because an increase in the ACL likely meant that fishing would extend into the winter months, the Protected Resources Division of the National Marine Fisheries Service said, well, if the ACL goes up by that much, then we're going to need to put in place some kind of a measure that is going to provide protection to the whales when they are migrating off the coast of the South Atlantic and to the right whales when they are calving. This amendment; we did scoping

on it earlier this year, and the council looked at the scoping comments at their March meeting in Savannah.

There were a couple of additional alternatives that were submitted to the council as part of the scoping process that they voted to include in the amendment; so I will walk you through all those. The first thing they did was to revise the purpose and need. The purpose for the action is to reconsider the annual November 1 through April 30 prohibition on the use of black sea bass pot gear.

The need for the action is to minimize negative socio-economic impacts to black sea bass pot endorsement holders while maintaining protection for ESA-listed whales in the South Atlantic Region. I apologize; I just realized I think I've been saying that the closure starts November 30, and I'm now seeing it is November 1 through April 30.

There is only one action in this amendment. There is some background information included in this discussion document for those of you who were not familiar with what has been happening. There is a little bit of information on the stock status of black sea bass, the history of management; and the one action that is being proposed is to modify that closure.

The no action alternative, of course, is to do nothing and keep it. The council wanted us to include in the no action alternative, things that have been implemented recently that are likely addressing the concerns that the Protected Resources Division have had regarding the use of black sea bass pot gear.

In particular the council, when they put in place Amendment 18A, which is the one that actually established the endorsement program for the pot fishery, they obviously capped the number of participants in that fishery to 32. That is a substantial reduction. They limited the number of pots per vessel to 35; there was no limit prior to that.

They required that pots be brought back to shore after each trip. It used to be that sometimes the gear would be left out to soak overnight or longer. They established a commercial trip limit of 1,000 pounds. In the eyes of the council, they have done a good many things recently that are likely beneficial and that are going to minimize the interaction between the black sea bass pot gear and the whales; and they wanted to make sure that was noted.

We are going to add the provisions that our currently in place that have been implemented through the Atlantic Large Whale Take Reduction Plan. Then the rest of the alternatives; Alternative 2 is basically just to remove that closure. Alternative 3 would constrain the closure to an area off of Florida and Georgia; and this is the area that is currently designated as the critical habitat for right whales.

Currently this is the only map that we have in the amendment of it; and I know that some of you have pointed out that it is not very accurate or not very easy to discern the extent of the closure. We're going to continue to work on that and provide a better map. We're also going to include the coordinates of how the closure – the boundaries for that closures in the language of the alternative. Mind you, this amendment is very much in progress. In fact, the council is going to get an update on it in June; but they are not going to have a whole lot to look at because the

analyses that need to be done are being conducted by the Protected Resources Division of NMFS. Right now apparently they are very busy doing a biological opinion for something else.

We were told that the council probably couldn't expect to see any substantial analysis until their September meeting. This amendment has slowed down a good bit because of that. That was Alternative 3. Alternative 4 would apply from approximately Ponce Inlet to Cape Hatteras. The timeframe would be the same, November 1 to April 30.

Then it would be delineated by a number of waypoints. We have a table showing the coordinates; and then you have the map that shows approximately what that area would look like. This is an alternative that was brought forth to the council from NMFS Protected Resources, suggested by them, so we're going to analyze it.

Then there is Alternative 5, which also applies to an area off of Cape Canaveral to Cape Hatteras from November through April. Then it has some water depth specifications, so it would apply to waters that are 25 meters or shallower. Here is what that area would look like; and again we will have coordinates that are going to be delineating that area.

This is an alternative that was included in the document as a result of the scoping process. It was suggested that the council should consider a prohibition in the area that is currently petitioned to be designated as critical habitat for right whales. The right whale critical habitat was put in place a long time ago – I can't quite remember when, but in the nineties or maybe even in the eighties.

It hasn't been revised since. The Center for Biological Diversity submitted a request to NMFS to go ahead and revise that critical habitat. NMFS is doing that right now. This alternative would consider a pot closure in the area that could potentially eventually become critical habitat for right whale.

This is the map that was submitted as part of the scoping comments; so obviously we're going to have to redo the map with much better resolution. Alternative 7 is another one that was added by the council in March as a result of a suggestion in a scoping comment. This one would look at what has already been designated as a southeast seasonal gill net restricted area off the coast of Georgia and Florida.

Then the black sea bass pot closure would apply in that area. That is what that would look like. Finally, there is an Alternative 8, which is one that the council asked us to add in March. It has two subalternatives. This closure would apply to waters off of North Carolina and South Carolina from November 1 through December 15 and then from March 15 to April 30; so it is divided into two time periods.

Then Subalternative 8A would make it so the closure applies to the entire EEZ off of those two states; and Subalternative 8B would make it applicable in waters that are shallower than 25 meters only as opposed to the entire EEZ. This is a lot of alternatives and a lot of analyses that are going to have to be conducted that the council are going to have to consider when they next see this amendment.

You can see why it is going to take us a little while to get that information to the council. I think I just covered the timing. We received a good many comments during scoping and also during

the port meetings that were done in North Carolina. There were many folks that maintained that the winter fishery for black sea bass is very important and that the council really needs to consider doing something to allow fishing to take place during the winter months. I think the council is pretty aware of what the potential socio-economic impacts are of this closure. Are there any questions?

MR. JOHNSON: I have one, Myra. When do black sea bass spawn off of North Carolina and South Carolina?

MS. BROUWER: I don't know the months exactly; but they start spawning earlier in Florida. That is one of the issues that has been brought up to the council is there is currently no spawning season closure for black sea bass. Folks think that the council should consider this; but one of the problems is there is not a single spawning season for black sea bass in the South Atlantic.

DR. DUVAL: From my recollection, I think we asked Jack McGovern this question at a council meeting a little while ago. I want to say it was April. They are spawning in April; they are spawning in May as well. Tom Burgess, former council member and former AP member, had submitted some comments when we were looking at changing the start dates of the season last year; that there is some spawning that does occur in North Carolina during the month of May as well compared to the other months. I don't know what that is.

MR. BELL: I was just looking at a table that we had that was constructed from I think MARMAP data and on. It is a pretty broad season, and they had like January through June, and even a question mark for in the fall, too. I think they have kind of a prolonged – it depends on where you are, but it is a prolonged period where they spawn. They are very prolific, like rabbits.

MR. JOHNSON: Yes, I understand that. I know in Florida it is a January/February thing. Am I correct in that; Jimmy?

MR. HULL: Yes.

MR. JOHNSON: Yes; so basically what the right whale pot closure has done is it has closed the fishery down during the spawning months for a few years now.

MR. MUNDEN: Myra, I have a couple questions concerning Alternatives 4 through 7. As I read those alternatives; they include waters from Cape Hatteras south in the critical habitat. For the past 16 years I have represented North Carolina Division of Marine Fisheries on the Atlantic Large Whale Take Reduction Team.

I do not recall any waters north of Cape Hatteras nearshore being designated as critical habitat for Atlantic large whale until you got up into the Gulf of Maine and the Bay of Fundy. Now, from Cape Hatteras down to about Georgia, the nearshore waters are migration areas for Atlantic large whales.

As a Take Reduction Team member, we recognized that those were migration areas just like they are from Cape Hatteras north; but the team members were satisfied to concentrate on the calving areas. That is where you have the pregnant females and the calves. My question is what is the

rationale for the proposal to create migration areas from Cape Hatteras down to Georgia and include that as critical habitat when the actual threat to the whales would be in the southern portion of that area?

MS. BROUWER: That is a really good question; and I am going to attempt to answer it from the perspective of what I think the Protected Resources folks would say. Their concern is just not for the calving; their concern is for the interaction with the migrating whales. They wanted to make sure that was also captured in this amendment.

As part of the scoping process, we received one comment I recollect that said similar to what you have just brought up, these are two different things. One thing is the threat to the calving grounds; and then the migrating whales are a whole 'nother thing; so why are they being lumped together?

I don't know the answer to that. It is a good question. I think Protected Resources would not want the council to not do it that way. They way that these alternatives are structured, you will notice, that in order to provide adequate coverage for the protection of the whales, the council is going to have to select more than one preferred alternative; because a lot of these only cover a portion of the area where the whales are going to encounter this particular gear.

Actually I went back through the minutes; and they would have to select this alternative here, which is Alternative 3, which would cover from Georgia south; and the new alternative, Alternative 8, which is the one that addresses the Carolinas. That way you would have adequate coverage – I mean adequate for what Protected Resources wants to do. I am not sure I answered your question. I kind of went all around it.

MR. MUNDEN: I think you did answer my question. I've said this publicly at Take Reduction Team meetings. The real problem I have with the National Marine Fisheries Service approach is the one size fits all. If you look at the information available – and I just ran the numbers; 35 pots in the South Atlantic for 32 vessels is 1,120 pots.

If you look at an average New England lobster fisherman, he fishes more gear than that total in terms of vertical lines or ground lines, which are horizontal lines on the bottom. The real problem with pots is that if Atlantic large whale or any whale or dolphin, for that matter, gets entangled in a pot line and he starts trailing that gear, pulling that pot or that lobster pot along the bottom' as that whale moves it picks up more gear; and oftentimes the animal becomes anchored by the gear.

Well, yes, a large whale could get entangled in a single line pot set for black sea bass in the South Atlantic, but it is not like what you would encounter in New England. Again, this has come up before the Take Reduction Team members time and time again.

We have implemented requirement for weak links; which in theory if an animal does become entangled in a line, the line will break free from the major portion of the line and hopefully that line will pass through the whale's mouth or baleen or wherever it may get hung. At the next Take Reduction Team Meeting, I can assure you I will argue once again for the fact that the South Atlantic is not the problem. The calving area is important, but I think that has been

addressed by what is in place in the current regulations. Thank you, Mr. Chairman, for allowing me to wander there.

MR. HULL: Red pretty much said it all there. There is a lot of different gear that uses vertical lines. Black sea bass pots are pretty much like a crab trap. In fact, in Florida we use Number 8 Osprey Line, sinking line. It is very thin. It is nothing like the gear they use in the lobster fishery up to the north. This is very light weight gear.

With all of the changes that the council has put in place with tending our gear basically, bringing it back to shore with us at the end of the trip, 35 traps, and the fact that if they implement the critical whale habitat and do it with a mileage off the beach – and I'm speaking off of Florida, which is where the calving is happening – all of that calving is happening within seven miles of the beach. We don't see these whales offshore there.

With all that said, they have accomplished the goal that was stated to minimize the negative socio-economic impacts and continue the protection for the ESA-listed whales. They pretty much have it, but now you've got lots more options from Protected Resources. That was another question. Is it pretty much whatever Protected Resources decides is what will happen; is that really the bottom line?

DR. DUVAL: Jimmy, I made almost exactly the same comments on the record at our committee meeting when we went through this document, as Red did, noting all the changes that the council has made and requesting that the Protected Resources staff take that into consideration that those all be outlined.

I also made note of the fact that these are exactly the kinds of issues that the Take Reduction Teams were set up to discuss, was working with the fishermen to try to minimize these types of interactions with protected species; and that it appeared to me, I think as well as a number of other fishermen, that this was a little bit of an end run around the Take Reduction Team Process by only allowing for alternatives to be included in the amendment such as this.

A couple of the alternatives that were included that Myra went over were received as part of public comment, like she said, proposed revised critical habitat designations from the Center for Biological Diversity. I think the council would like a revised biological opinion for the fishery that takes into account all of the very responsible measures I think that we have undertaken to reduce effort in the fishery.

I did make note of that on the record and read from the existing biological opinion that the pot fishery did not constitute a threat due to no documented interactions between North Atlantic right whales and black sea bass pot gear. I don't know what else to say other than I am glad that Red is still serving on the Take Reduction Team in that capacity.

Tom Burgess also serves on the Take Reduction Team in that capacity. It seems to me like there is probably some disagreement perhaps between staff at the Protected Resources level between the northeast and the southeast. That is just speculation on my part, just given how vastly different the fisheries were. That was one of the things that we requested at the committee level was some rationale for why there are no gear area closures being proposed up in the northeast or that exist up in the northeast given the volume of gear up there compared to what we have down

here in the southeast and these similar types of measures being proposed down here; as well as the fact that it seemed that the issues of a migration corridor versus critical habitat were being blurred.

MR. SMITH: Myra's suggestion for 3 and 8, I don't know, it sounded logical to me. I know it is an end around; you were talking about that, Michelle; but to move on, as we sit here and we talk about what happens in New England, what happens here, and the willpower of those New England lobstermen; but we're here doing this, and I agree with you. I think 3 and 8 put together; I don't know if that is a possibility if we can get a motion of that and move forward.

MS. BROUWER: I failed to remind the AP that you had expressed to the council that Alternative 4 should be their preferred. That alternative became what is currently Alternative 3. You've already expressed to the council that you agree with selecting Alternative 3 as a preferred.

The other thing I was going to remind you of, in case you're not aware, is once the council picks preferreds for this amendment, then that will initiate a biological opinion; but that is something from what I understand that can take quite a while. The Protected Resources Division has, I believe, 135 days to complete the analyses from when the data are received in their office, which who knows how long that could take. The council is very interested in making sure that they express to Protected Resources what their preferred alternatives would be, and that would initiate the process of a biological opinion being put together and being revised for the snapper grouper fishery.

MR. DeMARIA: I think you can get a little carried away sometimes trying to protect a species just because an encounter may occur. I don't know the black sea bass pot fishery or the right whale issue really very well. We don't have much of that in the Keys. What we do have are sea turtles. There was a proposal recently to close a big area southwest of Marquesas to all boat traffic.

People do come in from fishing offshore to anchor there for the night when it's rough. The rationale was because there are sea turtles and somebody may hit one with a boat. When I asked, well, how many sea turtles have been hit? Well, none that we know of, but it might happen. I think when you start down that road, it is a slippery slope. If there really is a serious problem with the right whales and the black sea bass pots, then let's do something; but if there is not, maybe they might be overreacting a bit here.

MR. FEX: My question is to Jimmy; what is your depth that you're throwing the traps and the distance from shore, so I can just kind of get a grasp of what would really affect you and what really wouldn't?

MR. HULL: Anywhere from 60 feet to 100 feet, a pretty wide range but generally offshore, at least 12 to 14 miles minimum; offshore to 25 miles. It just depends on which direction you go. We're never inshore where the calving area is occurring; and when we do see whales, they are in on the beach. We're already not there. We don't fish in there. That is the whole point of it; we don't fish in there already. If they would just approve of that critical area, they could open us back up.

MR. ATACK: I had a question on the regulations. A while back we talked about I think when a certain percentage of the ACL was met, that the pots would be shut down. That never went through I guess, right? What makes me think about it is you are at 80 percent right now with the ACL; and the pots have been shut down since December, or whatever it is, November 1, and it will open back up I guess May 1. You've got two months.

The ACL will be hit probably would be my guess. If we change this and run pots open year round, then you are going to get into some other issue with a closure, right? It is nice now that the hook-and-line part can stay open year round; but it is just something to think about when what's going to happen.

MR. HULL: In general, if we could fish in the wintertime with pots, we wouldn't fish in the summer. It is a wintertime fishery for us and it always has been. That is when the fish that we want are there. In the summertime we're scrapping, basically is the word for it. If we could fish in the wintertime, we wouldn't be fishing in the summertime.

I agree that the hook-and-line sector being – the percentage for commercial hook and line is great. It allows for bycatch while we're fishing for triggerfish and other co-occurring species. Yes, the ACL may indeed be met before the end of the year for pot fishing; but as you say, the hook and line – I don't believe that just hook-and-line fishing you are going to be able to reach the commercial ACL.

Although it really went quickly from – I believe when the pots were pulled out of the water, it was like 40 something percent; and now under strictly a hook-and-line fishery it is up in the 80 percent, which is pretty surprising to me. I have really tried hard to hook and line a big catch of bass, and I haven't been able to do more than a couple hundred pounds a day on the hook and line. If we could fish in the winter, I wouldn't set my pots in the summertime. It is just not worthwhile; the fishery is not that good. They like cold water. It is a whole different group of fish that move in in the wintertime. We want winter fish.

MR. JOHNSON: I don't believe there is a separate hook-and-line allocation for black sea bass. Not to speak for Jim here, but I think what he was getting at is if you open up the pot fishery year round, it will close – the ACL will be filled. These guys that are going out with the step-down limits; they are catching their 500 pound of B-liners, I guess they are still opened but should be closed soon. They are allowed to catch some black sea bass, too. That wouldn't occur with a year round pot fishery; not if it is at 80 percent and it has been closed since November 1. I think that was a point he was trying to make.

MR. CONKLIN: I was just kind of listening to all your comments; so I want to bring everybody back down to ground level and remember what this amendment is trying to propose. We're trying to make it so these guys can fish during the closure. We're asking you all to look at these areas here and say, well, if we can put a little bit of protection in place and meet the National Marine Fisheries Service in the middle; then you guys can go fishing outside of this depth contour or whatever options you choose.

This is to open up the fishery for the pot fishermen in the winter months. Just keep that in mind, don't look at these areas on here and say, oh, well, this is just year round closure or something

like that. We're trying to enable it so people can work and the market can get the fish it demands. Just remember that.

MR. JOHNSON: Anybody else have any other comments? We've already chosen a preferred before, which is the one you're looking at up on the screen right now. That is what occurred the last time we met. There is really no need, unless you all want to change something or add something, to do it again.

MR. SMITH: But that still leaves North Carolina and South Carolina; they are not protected in those inshore waters. The season, looking at it – I mean I am no expert on right whales and the calves, but I do kind of follow the issue. On 8, those are the times that they are going to be in those waters. Now how do we make that suggestion to the council if we've already done 3, which is now 4? I'm a little confused here, because what we need is a motion and we need to move on and let the AP make the decision so we can move on.

MR. JOHNSON: You can select another preferred if you wish, Rodney. You can make any motion you would like.

MS. BROUWER: If you would like to make a motion, as we discussed earlier, for one preferred or two preferred, you can suggest that to the council again. As I mentioned, the alternatives have been renumbered; so it would be cleaner if you still want to suggest that they select this one as a preferred, which is Alternative 3; that you make another motion to that effect, and perhaps you would like to add another one on top of that.

MR. SMITH: I will defer to you, Jimmy, it is your living. You see what we've got some preferences up here, some preferreds. What do you think?

MR. HULL: I think that the preferred that you chose already was the one that I had chosen, which they have a designated critical habitat area, which is what you chose, which runs up just into Georgia and runs offshore there where you have the Mayport entrance, where I think they had some ship traffic there that they are very concerned about; and then coming down inshore as far down – close to you where you probably don't see many whales.

It covers it pretty good inshore there. Then they've come up with several other – the other option I guess was Number 8, which vectors off from about Ponce Inlet and vectors up into that area. I really can't speak for – again you're deferring to me for off Florida; that is fine, I can speak for that.

I can't speak for – Tom Burgess or someone like that would need to speak for that area or Jack could speak up about that area and where the critical habitat is for whales. I understand they migrate and how far off the beach are they and where are they fishing up there. It used to be four and now it is three; that was the one that I chose, and I thought that it would provide adequate protection. We don't fish in there, anyway.

That is not where we fish, but that is where the whales are and that is where they're calving. It was just perfect; and with all of the other options that the council has put in place; it is a no brainer; we're not going to catch a whale in a sea bass pot by any means. I think if you want to carry it further; there is a statement that is made that any vertical line is a hazard to a right whale.

Well, how about some monofilament line, 100 pound test, 200 pound test that we're dropping thousands and thousands of those down. It is not much difference to take a leap from a black sea bass line, which is tiny, to go to monofilament line. I'll just stop with that right there, but I think the one that you have is the good option. Of course, it is all going to change, it sounds like. There is a lot more stuff that they are going to throw at us.

MR. COLE: Mr. Chairman, I think experience would suggest we leave well enough alone. We have expressed a preference. The council hasn't rejected it. They have been forced from scoping to add some other alternatives. It has just been suggested several of those alternatives probably will create additional grief. I think we leave this alone. Actually the next move is up to Protected Species, the way I look at it. When we get back their report on whatever they do, we may have to look at another suite of alternatives; but I think we've already made an expression and we should leave it alone.

MR. JOHNSON: Thank you for that, Bill. Do we have any other comments?

MR. HULL: Don't forget anchor lines, too, those are vertical.

MR. COX: I had a lot I wanted to say. I've been bass potting for eight years, and I've just gotten back into it. I just want to say you guys have had a really good discussion on this. All the points were well made. I think the council really wants to see the guys go back to work. Just keep in mind there is a 780,000 pound ACL now; so it is a lot of fish to be caught. Thank you.

MR. JOHNSON: Well, we've got some time. Obviously, we're not going to get into tomorrow's discussion; but if there is nothing else on black sea bass, if you guys want to take up where you left off on the hog snapper or anything else, now would be the appropriate time.

MR. SMITH: That is an open door right there. Hog snapper; we've made a motion; it is to the council. It is just like this thing that we just went through. It seems a little similar to me in some ways. I'll leave it at that.

MR. JOHNSON: I agree. I think just when the AP report is given; we can just revisit and just say that. I do have some notes here on other business that there was a letter sent out by the Key West Charterboat Association. We have already visited this, but maybe we need to revisit it. This came up at a port meeting, I believe.

They requested their desire to see a moratorium on for-hire permits for the for-hire sector, something similar to what has been done in the commercial sector. I know that we have voted on this in the past and it was approved for the council to look at it. Are there any thoughts on that?

MR. HARRIS: At that same meeting the commercial guys also asked to lift the two-for-one, so they want more commercial fishermen in their fishery; but I was against the moratorium on headboat stuff before and I still am. What really brought that up was not even the port visioning meeting. It was the Florida Keys National Sanctuary Meeting that brought that to light. Then it came up again during the port visioning. Really, Richie and some of the guys are just looking to have an exit strategy. They want to be able to sell their permits that they have.

MR. DeMARIA: I talked with some of the charterboat guys – and that is not really my sector there as a charterboat people, but still I understand their concern. They've put a lot of money in their business; and right now anybody can come in and set up shop right next to them and get a permit. It would add value to their business and give them some type of a little bit of retirement cushion, add some value to their boat when they wanted to sell it.

It is sort of like what we did with the commercial sector. I think it might be a good idea. Whether you can sell it or not or whatever; that is a whole 'nother issue. Just having a moratorium on an issuance of any new permits might – I don't see it as a bad thing. There were some people that spoke in Key West that wanted to do away with the two-for-one buyout for commercial boats, but that is not necessarily going to create more commercial fishermen; it is just going to freeze it at that level.

But the charterboat guys; I think they've got a valid concern. I've listened to them. There was a control date I think set for like November of '97 or '98, which you can't go back to that, but maybe they could do it at the next council meeting and set the control date right then. I think it is worth looking at for these guys.

MR. COLE: Mr. Chairman, I think we're talking about the larger question of fishing power. We all know that certainly in this country and it appears throughout the world we have an excess of fishing power versus available harvestable resources. To just take up a moratorium on charter right now without looking at other harvesters, I think it is going to be difficult.

I think what we might suggest to the council – and I really would rather think about it overnight perhaps – is that they are going to have to in a future amendment start looking at the concept of just how much fishing power is tolerable in this fishery? We all know that we have an excess of it, for example, in the shrimp industry.

Maybe we need a moratorium or maybe we don't; but I do think we need to look at this in the broadest concept, because it does get into some serious socio-economic and other rights' questions that are not going to be easily resolved by just looking at the charter industry.

MR. DeMARIA: But on the other hand, we had no problem at all forcing this on the commercial fishermen, so what's the difference? It seems to me what is good for the goose is good for the gander here.

MR. HARRIS: Yes; we brought up some of the socio-economic things, because obviously this was something that came out of the Keys and was generated by Richie, the president for the Key West Charter Boat Association. One of the things that I brought up at our Sanctuary meeting was just our socio-economic position and where we are in the world limits the amount of charterboat guys there are.

You just don't have a kid that all of a sudden picks up and moves down to Key West, buys a boat, buys a house and decides to go charter fishing. Just the cost of living itself prevents that from happening. Although I did mention to Richie that I would support that moratorium, but the caveat is there is no selling your permit. When you get out of fishing, you turn it back into the generic pool; and then the next guy that wants to go fishing picks it up and runs with it.

MR. JOHNSON: Okay, Myra wanted to clarify something.

MS. BROUWER: To that point; I wanted to make sure the AP was aware that this issue has come up for discussion at the council level. There have been council members that have introduced the topic in council discussions; and we heard a lot during port meetings in the Carolinas. I went to the port meetings in North Carolina. We heard on several occasions folks interested in the council considering some kind of a cap on the for-hire industry. I just wanted to make sure that you understood it wasn't an issue that was just in the Keys. We've been hearing about it for some time now.

MR. STIGLITZ: Is this to be as a management tool to manage our fisheries, to eliminate people from going in business? I don't think we're a group here to tell people who to go into business or what to go into business. I thought competition is what made our whole country run. I don't think we're in the business to do that.

I think we're in the business to manage the fishery; and that is not managing the fishery. That is just taking a handful of charterboat guys and saying, look, you have got exclusive rights to it now. It happened to the commercial fishing. We didn't ask for it. Believe me, we didn't ask for limits and two-for-one permits. This was all crammed on to us. I don't think we're in the business to manage who can go fishing and who can't go fishing.

If there is a problem with the fishery, then everybody needs to cut back on it. I don't think there should be just an exclusive group that has exclusive rights to it. If I want to go to Key West and become a charterboat captain, I feel like I should have the right to it, my son should have the right to it, my grandkids should have the right to it and everybody else's kids and their grandkids and them should have the same rights.

MR. HULL: Okay, you said new business and other ideas. Has the AP ever addressed how do you measure the fishing power of the recreational industry in offshore waters? Just because they have a fishing license, you don't know where they fish. I know it goes back to the state level also.

But, what about a permit for the recreational industry that goes offshore so that you know how many fishermen you have in the recreational industry fishing offshore; and a requirement that they have to report, just like the other sectors do. Now the for-hire has to report. The commercial has to report. We're reporting weekly as dealers. Where is the private recreational? I have nothing against them; but that is the problem. They are the giant elephant that we don't know what is going on. They need to become responsible.

MR. JOHNSON: Okay, you're new on the AP; and I'm not going to beat my head against the wall. We have made this recommendation every meeting since I've been on the AP

MR. STIGLITZ: And before you.

MR. JOHNSON: And before me; so that is old business.

MR. HULL: Kind of like hogfish?

MR. DeMARIA: I agree with you completely what you just said, Jimmy; but just a point of clarification. The guys in Key West were real clear when they did it. If there was a moratorium, they didn't want to exclude anybody. People that are presently in the fishery have them stay, but any new participants a control data sometime in the future; but they weren't trying to go back like to '97, '98 and exclude everybody; cap the effort in the fishery.

MR. JOHNSON: I will say this. I am a charterboat operator, and I had a phone call this week. A guy wanted to go fishing the next day, because he said the boat that he had booked wasn't going to go because it was too rough. I looked at the forecast and it was 2 to 4 foot. I said, "Well, who in the world did you book?" He said, "Well, I booked Captain Donny."

I was like I've been here for 33 years; I have no idea who Captain Donny is. That is a real issue in the for-hire sector that everybody that has a 25-foot boat on a trailer; I don't know how we would address that as an AP, but I doubt very seriously that Captain Donny had a federal permit. I doubt very seriously he even probably had the proper license or insurance or anything else.

That would be the only reason, Rob, that I would think that maybe some kind of moratorium might be worthwhile, because you would maybe stop that; which has always been an issue not only in my area but I'm sure in the Keys as well. You've got these guys that are flying under the radar and they are taking money out of your pocket.

MR. MOSS: That is a good point. The problem is that if you put a moratorium on it, you are not going to stop Donny with a regular boat. The definition of a recreational fisherman; my Joe Job is landscaping, and I have all the correct licenses, permits, and so on and so forth; and I compete against what we call Chuck in a truck.

He doesn't have any licenses, doesn't have any permits, and no matter what regulations you put on him; they are the guys that are going to fly under the radar. You are never going to compete with that. Putting a moratorium, as was said over here, that kind of defeats the purpose of competitive business and what makes us what we are; just my opinion.

MR. JOHNSON: That's a good point.

MR. BROWN: Captain Donny's come and go every year. I've seen many of them come and go. But I've got to agree with Richard, too; my concern is our freedoms. I keep seeing that year after year your freedoms just keep getting taken away more and more. I don't know; I've just got real mixed emotions about putting a moratorium on it.

MR. THOMPSON: I agree with Mark on this one; you're taking away the rights and privileges of a United States citizen to go in business for a few guys that are already there to line their pockets. Like I said, I am going to agree with you if you never could resell it; but you are still putting a limited. I agree with Richard.

Do we have too many; is that our point here to say that we have too many charter captains? I don't think we do. Like he said, the Captain Donny's are going to be there, like you said, Mark. Every year there is going to be another one. That is for law enforcement to go in there and stop them. Our former DNR agent, who is now a magistrate, was very good at that. We'll see who the next guy is. I don't think we should with a moratorium at all.

MR. HARRIS: One of the things that I've seen popping up specifically down in South Florida and the Keys is the not so much the charterboat captains; it is the hire a mate, your boat my gear, my numbers; and no licensing or anything. I even got hold of the state and asked our friendly NOAA Law Enforcement, obviously not here, that was at the meeting down in Key West. I go is there anything illegal about that? He said absolutely not; there is nothing illegal about that. Putting a moratorium is not going to change that any more than making drugs illegal has stopped drugs.

MR. SMITH: I agree with both Richard and Jimmy; and I think they are kind of on opposite ends here. There are just so many darned people in this world, Richard, that it ain't the way it used to be; and it is unfortunate. I think that if I'm not mistaken that was the meeting that you were at, Rob, right, where the charter captains in the Keys also asked for secession of Monroe County from the Union, too, right? That is what happens down there in the Keys.

Really, it is quite often a state problem when it comes to looking at Florida's fisheries, the way that we manage it in a state level there. It is really unfortunate that it doesn't have better management when it comes to charter for-hire, because it is such a unique position that we are as charter captains – I was for a long time. We could contribute so much more but the state limits us.

MR. JOHNSON: I would say this; the MRIP numbers on offshore fishing are still showing a decline. It is not like there are just million of offshore anglers out there. We have less fishing effort today than we've had in many years. Well, it is five after five. We've got 25 minutes.

MR. FEX: I have attended a couple of port meetings. I kind of want to bounce this idea around you guys, because now we're in trip limits. A lot of our fish are going to be trip limited. Would you guys consider any overage allowance, maybe a 5 percent, 10 percent overage allowance on trip limits; just for the inability to weigh fish?

I don't know how many of you guys have your scales on your boats and try to weigh your fish, but I'm having a problem. I might be 10 pounds over one trip; I might be 20 pounds over; I might be 20 pounds below. I figured I ought to entertain that idea since we're here and we've got the time, because several people have a problem with it.

I don't want us to all of a sudden get too many violations and all of a sudden we can't go fishing anymore. I know the Gulf went to trip limits; and then they quit doing it and went to catch shares; so that would be even worse if we got too many tickets and then we couldn't keep fishing. I will just throw that idea to some of the commercial guys since it is affecting them.

MR. JOHNSON: Are they writing tickets to people for overages? Unless it is excessive; obviously, if you had 1,200 pounds on a 1,000 pound trip limit or something, but are they writing a ticket for 1,050 pounds?

MR. FEX: No, right now they are allowing like a 5 percent overage. On a 1,000 pound trip limit, they are allowing 50 pounds over; but they are actually writing warning tickets if it is over at all. Every couple warning tickets might end up to a violation. I'm just trying to keep us from all of a sudden getting violations, because we're trying to stay at the trip limit, we just went over

a little bit. It is hard to weigh fish. I don't know if you guys have done it yet on your boat or whatever, but please elaborate on it if you have, because it sucks for me.

MR. JOHNSON: Well, my only issue – well, I don't know if it is even an issue with that – is as soon as you tell somebody they are allowed this percentage over, then they are going to be that percentage over every dad-gummed time they leave the dock. That is how they work.

MR. STIGLITZ: That is exactly what I was going to say. If you tell somebody he is allowed 5 percent, he is going to go to that 5 percent and expect to have 5 percent over that. If they say you are 1,000 pounds, you need to quit at 950. When I go king fishing, I am allowed 25,000 on my boat. I quit at 23,000. I cut myself short; I go back the next day. The law has got to be there some place; and if it says 25,000, that isn't 25,001. That is the way I do it, I cut myself short, because I don't want to break the law. You say 5 percent? You may not, but everybody else is going to go 1,050.

MR. COLE: Mr. Chairman, Red Munden may need to help me here. Kenny, is this the feds or the state writing you?

MR. FEX: It's the state writing the tickets.

MR. COLE: We'll let Red deal with it.

MR. MUNDEN: It has been several years since I was involved with marine fisheries enforcement in North Carolina. When we first put in the warning ticket program, it gave the officers the discretion of issuing a verbal warning or a warning ticket. The hook there is that if an officer gives you a warning ticket, he cannot issue you a second warning ticket for the same or similar offense.

You get one shot with the written warning. Going back in time when Dr. Bill Hogarth was our fishery director; we tried our darnedest to encourage the officers to exercise discretion. Some would and some wouldn't. A lot of the officers would say if it is in black and white, if it is in that rule book, that is what I'm enforcing. Again, if you have a relationship with the officers and they let you bring in a little bit over the allowance; I think that is the best way to go.

MR. STIGLITZ: What do they do if they catch you with 50 pounds over? From what I understand in Key West, they have been confiscating the fish. They haven't been doing anything to the guys; but if they are allowed a 1,200 pound limit and they go over 1,280, they take that 80 pounds from them.

MR. FEX: Well, I personally haven't been caught with overages. This is other vessels, and I heard it at the port meetings. I was just trying to entertain the idea, because I know they maybe sometimes do that. It was my concern, because we are about ready to trip-limit triggerfish, and there is no telling what more we're going to go.

That is just my concern; because Roy said they went to trip limits in the Gulf and then they finally went to catch shares. That is my only concern is I don't want us to all be violated out of our ability to go fishing, because triggerfish is one fish that I typically catch, but it would be hard to weigh, because I would throw them at the bottom of the thing. I'm just entertaining the idea,

because it was a concern of the North Carolina fishermen, and I'm just bringing it up to you guys because it might be a concern later on if you get violations.

MR. HULL: Kenny, when we've been boarded at sea usually the boarding officer will ask me how many fish do I have and how do I measure that? I usually know what my box will hold; and how do I know what my box will hold? Because I've loaded it and unloaded it at the dock. Also, we use baskets? If that basket is slap full, biscuited off; it weighs 70 pounds of trigger or 70 pounds of bass.

They usually use their commonsense and they believe you and say, yes, that looks appropriate, that looks right; but I think that where you may have a problem if you're off like you were saying a small percentage would be at the dock where they are really going to have a scale there and check you.

It is pretty much – obviously, there has got to be some leeway in there, because how are you going to measure at sea in a small boat, which we're dealing with, other than knowing your box and knowing what you're doing? They pretty much have always asked us. That is the first question is how much do you have and how do you know how much you have? If it looked obvious to the officer or you are a known violator, then they are going to track you down and get you.

MR. HARTIG: I think if you guys want to have this discussion with the Law Enforcement Committee, you make a motion that the council bring this before our Law Enforcement Committee and see how they react to it. They may not want to tell you what their allowance is, if they have one. I don't know; but this is something we could actually do. We could bring it before the Law Enforcement Committee.

MR. JOHNSON: That might be something that we want to talk about. The only other option – and I know a lot of people don't like the number limits, but on red porgies you can have this many head. You could do something like that on just about all these species. It is going to affect your ACL a little bit, because you might reach it. If you were catching a lot of big fat fish, you might get there quicker. That would be one way you could address it, a head limit and not a pound limit.

MR. FEX: Yes, to that point, you might be high grading, too. But to Jimmy's point, I understand you know what's in your box. You might be particularly talking about black sea bass. Well, that is the difference that might be with me versus you is I catch triggerfish and B-liners all day. The triggerfish ended up at the bottom of the bin, so I can't really judge it off that.

I'm actually using a bathroom scale. I stick a basket of fish on there and it fluctuates from 65 to 75, so I guess it is 70; you know what I mean. I'm kind of getting close, but I don't want to all of a sudden get in violation. My crew member gets mad at me when I'm ready to stop catching B-liners.

He is like, oh, I think we can get 5 more pounds or 10 more pounds. I'm like do you want to pay the violation? It is almost like I'm fighting with my crew member over it, but I just wanted to bring it up, because it was a comment that the North Carolina fishermen made at the port meeting. I was just entertaining the idea. It don't matter to me, either/or. I stick by the law.

MR. JOHNSON: Myra has something else under other business here.

MS. BROUWER: Another issue that we heard about in particular in North Carolina – those are the port meetings that I attended anyway – had to do with red grouper. There was a lot of concern for several things; that the shallow water grouper closure spawning season closure isn't really working because people are catching a lot of red grouper with roe after the opening of grouper season.

There were also several folks that wanted to see the council consider size limits, 24 inches for all grouper or maybe just red grouper. I just wanted to bring that up. Red grouper is going to be assessed. It is on the SEDAR schedule. I believe it is not any time soon, maybe 2016. I can't quite recall. I'm just curious to see if the AP had any insights or anything else that you've been hearing on that issue.

MR. FEX: I attended that meeting and I heard those comments. I bit my tongue on that one. I've done gutted research with DNR several years apart, but we found that red grouper start spawning in December; and they do go all the way into May. But if you looked at the numbers back when we were doing the grouper spawning closure, the numbers were only going to last about eight months.

The four-month spawning closure was pretty much dead on and it worked for the first year. We stayed below the TAC and everything. I understand their concern, but what are they going to do? Do they want us to shift it that way? What is going to happen is – no, I understand you're not answering the question, but I wanted to say – you know, I was like what do you want us to do, shift it?

Because if we shift it, we're going to open it in January and then we're going to be getting the other spawning fish. Red grouper spawn a lot longer than any of the other groupers do. I took their idea into consideration, but the four-month closure is about perfect where it needs to be. It wasn't like I was ignoring their comments, I just knew better because I did the gut research for that twice, for two consecutive years, so I knew the data.

MR. JOHNSON: I'll second that on the red grouper. We sampled some in late February, and they were within a week of spawning. I think they've got it pretty dialed in, really. Anybody else?

MR. HARTIG: Just to that point for red grouper; they are in a rebuilding program or are they approaching overfishing? I can't remember which one it was, but they are in a program. We did not have to do any additional regulations if we left them within that four-month closure. That is why reds are in that closure, anyway, as well as the spawning.

It is the same thing with gag. The four months wasn't to encapsulate gag spawning, per se. It was to reduce the approaching overfishing. I can't remember where gag was, but we had to do something with effort for gag. We had to reduce it. We did it by the four months, adding the two months on to the closure.

That was an effort reduction. It happened to coincide pretty much with gag spawning. I know reds do spawn later. Especially farther south; they spawn into May for sure. It is a two-pronged

assault on how to deal with the overfishing that was occurring for those species or whatever was occurring, which I can't remember right now. But we did have to put them in some kind of plan to reduce effort.

MR. ATACK: I guess the other comment was changing the size to 24 inch for all grouper. We know if we made that recommendation, it probably wouldn't go anywhere, right, with hog snapper or gray trigger or the next stock assessment. I guess we could talk about that. How does everybody else feel about it?

MR. HARTIG: If I may, we have some information. We're going to get some information from the hogfish assessment that says hogfish are different. We know white grunt are different between Florida and North Carolina. Red grouper, if you did the genetics, you would probably find out as well; so maybe we ought to encourage some scientists to do some genetic work on red grouper to see if there is a difference between North Carolina red grouper and Florida red grouper, and you could manage those separately. I don't think the 24 inch would work very well for us, but it may work well for North Carolina in red grouper. That is certainly something we could do if we had the genetics to back us up in our management.

MR. JOHNSON: My question about raising the size limit is neither one of those fish we've exceeded the ACL that I can remember. We already have a four-month closure. What science are we using to base changing the size limit on them?

MR. FEX: I think their concern was the grouper closure; the gag closure. I think they were trying to adjust it so that the gag would last longer. I think instead of making a smaller trip limit, they considered that raising the size limit would limit the catch so that in turn would extend the season.

I know they said on all grouper; I did hear that, too. I can't imagine doing it on all grouper, because it is just like your point there is we're not meeting the ACL on the scamps or the red grouper; so to up and increase the size limit would even decrease our chances of even coming close to that ACL.

AP MEMBER: And would send the regulatory discard rate sky high.

MR. DeMARIA: To have the same size limit for red grouper, which what do they get, maybe 30 pounds is the biggest or so, the same as the black grouper which gets over 100; I've caught them 108, 113 pounds. It doesn't make sense. It makes about as much sense as having a 15-inch size limit for flounder and a 12-inch size limit for hogfish. I don't know.

MR. JOHNSON: We're going to wrap it up ten minutes earlier. Thank you so much. What time in the morning, Myra – 9:00 a.m. in the morning.

The Snapper Grouper Advisory Panel of the South Atlantic Fishery Management Council reconvened in the Crowne Plaza Hotel, North Charleston, South Carolina, Wednesday morning, April 9, 2014, and was called to order at 9:30 o'clock a.m. by Chairman Robert Johnson.

MR. JOHNSON: Okay, if everybody can find a seat, we'll get started.

MR. WAUGH: Good morning and welcome to this session today where we will be talking about Regulatory Amendment 17, MPAs. I've got the agenda up here. We've got a couple of slight modifications. The Law Enforcement; we're going to have Lieutenant Mike Mastrianni from the Coast Guard give the Coast Guard presentation.

NMFS Law Enforcement wasn't able to make the meeting today, so Myra Brouwer is going to go through their presentation. This first set of presentations are the ones that the council received in December and they wanted you to see those same presentations. Then Stacey Harter will cover the Southeast Fisheries Science Center presentation. Tracey Smart is going to do the MARMAP and SERFS.

What we've got is those are going to be done like in two parts; the first going over the existing MPA sites and then separately going through state by state. We're going to entertain questions after each presentation. What we may want to do, when we get to this state by state, for the new sites that are under consideration is let Stacey and Tracey give their presentation so you have the full picture for the sites off of that state and then open it up to questions.

Then George Sedberry is ill, so rather than share his flu bug, which we thank him for not showing up, Joey Ballenger, who is also on the expert workgroup, is going to give that presentation. That will cover what is in the existing MPAs and Regulatory Amendment 17. Then we're going to have presentations on protecting spawning aggregations in areas.

This is going to be led off by Will Heyman talking about his work. Mike Burton will present what has been done by the Southeast Fisheries Science Center in Riley's Hump and then John Hunt is going to talk about Riley's mutton and some other efforts in Florida. Then we're going to have a presentation on artificial reefs off of South Carolina by Mel Bell.

Our Habitat AP met last week and had presentations from each of the states on artificial reefs; and they are working on a policy statement and recommendations. We wanted you to see that information from South Carolina and see how that folds into our ongoing work. Then we'll get into sort of the decision part and going through the scoping document and potential alternative approach.

What I wanted to do is just sort of orient people; and this is some of the information out of that document that lays out the alternative approach; why we're here. The 240-foot closure was implemented as a part of Amendment 17B. This included a deep water closure for deep water species, to help protect Warsaw grouper and speckled hind. Those regulations became effective on January 31, 2011. Then there was a lot of outcry about the impacts that closure was having and questions about its effectiveness for speckled hind and Warsaw.

The council worked on Regulatory Amendment 11 to eliminate those restrictions. There is an error in the document that you have. The correct date when those regulations became effective is May 10, 2012. That 240 closure was in place all of 2011 and almost half of 2012. The council removed that deep water closure and said they would readdress measures to reduce bycatch of speckled hind and Warsaw grouper in our Comprehensive Ecosystem-Based Amendment 3.

That was subsequently pulled out of that. The measures protecting speckled hind and Warsaw were pulled out of that into Regulatory Amendment 17, which we will be talking about today.

When the councils removed that 240 closure, the Secretary of Commerce was sued. In some of the statements, NMFS and the councils reiterated that they would take additional actions.

We're still waiting on a final decision from the judge. What additional action; part of that is Snapper Grouper Amendment 17 looking at MPAs for speckled hind and Warsaw grouper. We'll be talking about that today. The council formed the MPA Expert Workgroup and requested that they provide some recommendations.

You have their report and the minority report in your briefing materials as Attachment 3A and 3B. Also, the council subsequent to this was working on Coral Amendment 8, which expanded some coral habitat areas of particular concern or HAPC. There is an estimate based on the analysis done by Nick Farmer in the Southeast Regional Office, looking at the regulations that go into these coral habitat areas of particular concern. They are approximately 50 percent as effective as an MPA.

The way to look at that is you get a 50 percent credit from those Coral HAPCs towards MPAs towards protecting speckled hind and Warsaw. That is an additional action the council has taken since the action to remove the 240 closure. This Coral Amendment 8 was sent to NMFS on November 26, 2013.

We're waiting for that review period to start; but the total area protected under that action is 843 square miles. The council is evaluating additional action while we're waiting to hear how the judge rules on the case. What they've asked us to do is have you see all the presentations that they received in December, look at these additional presentations, and talk about a potential alternative approach; and then provide your recommendations to the council.

They will determine in June exactly what goes out to scoping. Right now what is scheduled about the scoping in August are the existing recommendations from the MPA Expert Workgroup that are contained in the scoping document. We'll go through that in detail this afternoon. With that; that is sort of an overview of where we are and we'll go ahead and start through the presentations unless there are any questions at the outset.

MR. COLE: Gregg, help me understand is the judge waiting on us and the council and NMFS to complete a process before he rules? In other words, exactly what has NOAA attorneys asked the judge, except that, no, we're not guilty and all this sort of stuff?

MR. WAUGH: Well, the arguments have been made that in removing the 240 closure, the council and NMFS have indicated that they are going to take additional action to replace the, quote-unquote, protection that was included there for speckled hind and Warsaw. Those arguments have been made. The judge is not waiting on anything.

We've asked and received briefings from NOAA General Counsel at each of our meetings on the status. If any of you have ever been involved in a lawsuit, the judges work on a different time. Of course, attorneys' clocks are always running. The judge isn't waiting for anything specific; it is a matter of her workload and finally getting to that and making a decision.

MR. COLE: Well, that is not exactly the answer I was looking for. Has the judge been made aware that actions are pending to correct plaintiff's argument?

MR. WAUGH: Yes.

MR. COLE: Well, then the council and all of us need to move on with something and not wait on the judge.

MR. WAUGH: Right; and the council certainly isn't waiting. The council is going forward and that is why they have approved Regulatory Amendment 17 to go to scoping. Their indications are that they will approve a document to go out to scoping in August. They are not waiting. They are honoring that commitment saying that we're going to take additional action in moving forward.

MR. COLE: The test then – the alternatives that we'll be discussing – is does it meet the presumed protection for those two species that the 240 line represented?

MR. WAUGH: That is correct.

MR. HARRIS: A quick question; what is the group that has filed the lawsuit and have they offered any recommendations for compromise outside of a complete 240 seaward closure?

MR. WAUGH: There has been no alternative offered. They have argued that the action to remove the 240 Closure was not appropriate. The National Resources Defense Council, NRDC; and Ocean Conservancy is also partner in that.

MR. HARRIS: NRDC is pushing for a complete 240 seaward ban with no compromise?

MR. WAUGH: What they have argued is that the council put the 240 closure in place and said that was necessary to protect speckled hind and Warsaw. They are arguing you've taken that away and there is nothing in place to replace it to make up for that protection. They are arguing there was no justification for removing that closure.

MR. JOHNSON: Are there any other questions for Gregg?

MR. DeMARIA: Just one question; on Page 3 of your alternative approach; it just talks about snapper grouper species and not really snapper grouper complex. I can see down the road maybe being a problem with people saying, well, we ought to be able to fish for triggerfish in here or porgies or whatever. It just says snapper grouper species. Would it be better to be snapper grouper complex?

MR. GREGG: Yes; and that is the intent. We will walk through that alternative approach document this afternoon and get all your input that you want. But, yes, the intent is it is applying to the species in the Snapper Grouper Fishery Management Unit.

MR. JOHNSON: Kim, we're ready for you.

MS. IVERSON: Good morning, everyone. I wanted to give you a brief overview of outreach efforts associated with the council's effort to develop marine protected areas in the South Atlantic. I am going to give you a quick overview and kind of a historic look at some of the things that have happened.

For those of you that are relatively new to this process, we'll go back a ways to 1992 when the council first started looking at developing marine protected areas. Public scoping meetings were held throughout the southeast; and the map that you see there was one of the maps that went out to public scoping with the darkened areas being proposed as marine protected areas.

Needless to say, there was quite a gnashing of teeth at these meetings. This was before my time working on the council staff. The council came back to the table and reconsidered kind of what the maps indicated and where they would go, how they would approach the issue of marine protected areas.

The council went back and formed a Marine Protected Area Advisory Panel. In the year 2000 they held a mega advisory panel meeting. I don't think anything has been held before or since then. It was a joint meeting of the Marine Protected Area Advisory Panel, the Snapper Grouper AP, Law Enforcement, Habitat, and Coral. It was a ginormous meeting of all the advisory panels to come in and give input to the council on the best approach for developing marine protected areas.

In 2002 the council held a series of stakeholder workshops. This new process was a bottom-up approach and involved a lot of public input. There was a great deal of media coverage. We did a lot of work from the council staff on putting information out to the public about the meetings and the approaches that the council was taking.

As Gregg mentioned, Amendment 14 implemented eight deep water marine protected areas in February of 2009. As part of the amendment, there were three components that were included. One was outreach, the other research and monitoring, and law enforcement. The outreach component was similar to the approach that has been used with the Oculina Experimental Closed Area Evaluation Plan.

If you recall, that is the area just off of Fort Pierce, Florida. The council, as it reexamined that area as part of the experimental closed area, determined that they should develop an evaluation plan that included those three components as well. The overall goal for the outreach component for Amendment 14 was similar again to the OECA Evaluation Plan to increase the awareness and understanding of Deep Water Type 2 MPAs; Type 2 being that you could troll within the areas for pelagic species, but fishing for snapper grouper species or possession of snapper grouper species was prohibited; primarily targeting the citizens of eastern Florida at the time and then the U.S. general public in the South Atlantic.

The outreach projects were included in Amendment 14. These were designed to increase public awareness. They include provide regulations to the fishermen, work with the fishing chart manufacturers to highlight the Deep Water MPAs, include news releases to get increased public awareness, develop a PowerPoint presentation that could be utilized by fishing clubs and other organizations, have some posters and rack cards readily available, expand the council's website, and perhaps do television documentaries.

In 2009 the council staff worked with the South Carolina Sea Grant Consortium to produce a brochure that I think most of you are familiar with. 40,000 copies were distributed throughout the southeast. They were drop-shipped to state and federal agencies and everyone that was on the council's mailing list and have been reprinted since that time.

The council used to produce in the past a four-color regulations' brochure. The last printing was done in 2010, following the implementation of Amendment 14, and included two pages on the Deep Water MPAs that included the coordinates and a brief description of each of those areas. Again, 40,000 copies of this brochure was drop-shipped to state and federal agencies, bait and tackle stores, and individuals as requested.

As I mentioned yesterday, we're no longer printing those brochures. Because of the changes in the regulations, it just doesn't make it economically feasible to do that any longer. The council staff has developed a Smartphone regulations' application. There were some postcards I think I left on the table yesterday; but if you haven't downloaded it, please do so and spread the word. It is available in both Apple and Android platforms. The application includes sections on Fish ID and Regulations as well as managed areas.

That managed area section includes all the information that is included within that brochure that was developed in conjunction with the South Carolina Sea Grant Consortium. Project 2 was to contact fishing chart manufacturers to kind of assess what was out there and see how well those MPAs are designated on those charts.

Top Spot seemed to be one of those chart manufacturers that was fairly popular in printed form. They are laminated charts. They are produced out of Stuart, Florida. We contacted the owners of the company and worked with them not only to better highlight and include the coordinates of the Deep Water MPAs on their fishing charts but also the Oculina Bank Experimental Closed Area and HAPCs.

We need to follow up with the electronic chart manufacturers. Just a note that the Oculina Experimental Closed Evaluation Plan is under review; and the evaluation team is working right now on the various components of that plan to update it and will provide a report to the council in June.

As part of that effort, we have an outreach section of that team. Jenn Schull from the Science Center and I have been working together to contact some of the NOAA folks and look at their charts. As you know, they are no longer printing charts and everything is going electronic. There has been some discussion of maybe having some overlay with the charts that will identify fishing in restricted areas. We're hoping that will be an avenue, but definitely following up with NOAA and also with the electronic chart manufacturers, Garmin and some of the other electronic chart manufacturers, to see how they are currently designating those areas and if we can improve those designations.

News releases; of course, throughout the 16-year process of implementing Deep Water MPAs, there has been a lot of media coverage. The council has also produced several articles within the council's newsletter. This was an article that Stacey Harter, who is here, was kind enough to contribute to. It was an article in the newsletter that features some of Stacey's work on the Oculina Experimental Closed Area and also Deep Water MPAs.

There has been some feature work also on the law enforcement issues as well. Projects 4 and 5 identified in Amendment 14 were developed; the PowerPoint presentation and poster and rack cards. The PowerPoint presentation was kind of identified as a lower priority as far as the evaluation team for the Oculina Experimental Closed Area.

We've had a couple of conference calls in talking about developing a PowerPoint or webinar-type PowerPoint that could be used by FWC and the state agencies to increase public awareness. Also, the Deep Water MPA brochures have been distributed similarly to the rack cards that were used for the experimental closed area for the Oculina Bank.

The council's new website includes a whole section on managed areas. All of the maps are available, the coordinates, the background information, and the MPA Deep Water Regulations Brochure is available for download. I meant to mention that the MPA Expert Workgroup considerations are also available from the council's website.

TV documentaries; the council produced a video several years ago called "Rebuilding the Deep". It is about deep water coral areas not specific to the MPAs but helped increase public awareness of the deep water coral areas and the need to protect those. It is difficult to produce a full-scale TV production that is oriented towards television distribution; but we're looking at partnerships; and, of course, now with YouTube, perhaps developing a council YouTube channel, and at least highlighting some of the work that is ongoing.

In summary; the outreach projects primarily targeting fishermen have been addressed as outlined in Amendment 14. Again, we need to follow up with the electronic chart manufacturers and assess the current information and see if we can improve that information that is available. If any of you have any suggestions or recommendations, certainly we would welcome that.

We will coordinate with the upcoming research and monitoring activities and any law enforcement efforts to increase public awareness. Then, as I mentioned, we will explore using YouTube and other social media to increase the public awareness and also look at some evaluation of how effective these outreach efforts are.

I did want to note that there was another effort that the council participated in back in 2011 following a national workshop. There was a project conducted by the Marine Conservation Institute and funded through the NOAA Coral Reef Conservation Program to look at surveillance assets and possible uses for law enforcement efforts associated with MPAs in the southeast. A workshop was held in Orlando.

There were a number of agencies that were represented there and participated in the workshop. We looked closely at outreach as part of that effort. I've put the recommendations up here on the board, because I want to show you that there is overlap on the recommendations that came from this workshop as well as the outreach projects that were identified within the Amendment 14.

Have a centralized database; that was one of the things that came out; where can we go to get information? Utilize the latest technology; Google Earth mapping to show protected areas; have all of the regulations in one place. With all the agencies sitting at the table, it was quickly identified that there was a need for one-stop shopping for regulations.

Again, using social media; this was back in 2011, so use social media to disseminate information. The council has a Facebook page now and is looking at using blogs on our website and perhaps looking at other social media, including YouTube. To have presentations, just basic presentations available for use at fishing clubs and other meetings; we're working on that and work in partnerships to increase efforts.

To make sure that regulations are distributed quickly and are clear and enforceable; that latter part, we don't have a lot of influence on the enforceability, but we can certainly work to make sure that the regulations are distributed easily and are clear and easily understood. That is it in a nutshell. If anybody has any questions, I'll be glad to answer them. Certainly, we're always open for recommendations. You guys are the ones that are on the water for the most part. You use the maps, you use the charts. I am certainly always open for recommendations.

MR. JOHNSON: Does anybody have any questions for Kim or any recommendations? Thank you, Kim. Mike, we're ready for you.

LT. MASTRIANNI: Good morning, everybody. My name is Lieutenant Mike Mastrianni. I know I have met several of you. I'm here in replace of Lieutenant Morgan Fowler. She is the Coast Guard representative to the council. What I do is I run a local school here. I run what we call the Southeast Regional Fishery Training Center for the Coast Guard.

I instruct all of our Coast Guard law enforcement officers for LMR regulations all the way from North Carolina down to the Florida Keys; and I also cover the Caribbean area as well. I instruct those members as well as occasionally I will have local DNR or state DNR members in my class and other local marine law enforcement officers.

What I do is I take NOAA regulations; I create different jobs or tools that they can use called job aids that make these regulations more easy to understand for our law enforcement officers; that give them the tools to go out there and actually regulate and enforce the regulations. That is my job in a nutshell.

But, anyways, this presentation was originally given, as you can see, between December 2 and 6 at the council meeting and this is just presenting it to you now. Talking about the local MPAs in the SAFMC area; the North Florida MPA – we took a couple examples. Both North Florida and Georgia MPAs were the two that we're using for example here just because they are the furthest offshore.

We use these as an example for Coast Guard operations; because talking about distance from offshore; that will have a large determination on how often we are able to go out there and actually patrol the area and enact enforcement on any vessels out there.

You can see that this one is approximately 80 nautical miles offshore and then I think the Georgia one is a little bit farther offshore. Based off our cutters – and our cutters are Coast Guard vessels that are 65 feet or more in length. Those are the ones that will primarily be doing the enforcement on these farther offshore MPAs only because our small boats don't have the range of capability with their fuel tanks to actually get out there and conduct a full day of operations and return to port safely.

It also depends on the sea state. Obviously, the farther offshore, the sea state could get a little worse and our smaller vessels are just not capable of maintaining effective operations in large sea states. At full speed it would take approximately four hours for the majority of our cutters to get out there and then four hours to return to port.

With that being said, we do have a set standard of hours that are allocated for cutters each year by the Coast Guard in which we are able to operate. Across all our different missions, whether it be escorts in and out of different harbors and ports, be conducting local marine resource operations, whether it be doing environmental protection, recreational boater safety and so on and so forth; we have a set number of hours in which to complete all those different operations.

In fiscal '13, which October to October every year is our fiscal year – Fiscal Year 2013 we had 6,930 cutter hours allocated to our units in this area from North Carolina down to the Florida Keys. Again, as everybody knows, we had sequestration, which took a large impact on that and that cut those hours down to 4,600 or so.

With that being said, we did not have as many hours out at the Deepwater MPAs as we originally planned, because the sequestration did cut down on those hours and obviously we needed to re-budget those hours across all the different missions. For Fiscal Year '14; right now we have been allocated 5,000 hours.

We do not anticipate another sequestration; therefore, we do expect to be able to accomplish all 5,000 hours out on the water. As you see there, it says boat hours. Those are the small boats that I was talking about, the more local or nearshore vessels that we have, the 25 footers, 45 footers, 33 footers that we use for inland waterways and then local – I say local, but nearshore enforcement operations, LMR, recreational boater safety and so on and so forth.

Again, the transit time to the MPAs is one of the larger chunks. If it is good weather, we can always plan on being out there for several days and conducting several different operations, which does help in getting to these MPAs and implementing them into our patrol plans. However, if it is adverse weather, obviously it takes longer to transit and taking up more time. Then we're not able to stay out on scene as long, so it does deter or decrease the amount of time we spend at the MPAs. Some of the other options that we are pursuing – yes.

MR. PERRETT: Do you have any data on citations that you wrote, observations that you made when you were out there patrolling with the cutters? If it is later in the presentation, that is fine?

MR. MASTRIANNI: Yes; it will be one more slide in and I'll get to that. Some other options that we do have when we are not able to get out there, whether it is sequestration, adverse weather, just so on and so forth is at my training center what we've done is we've developed some aircraft patrolling job aids.

What we are doing is the three aviation air stations that we have in this AOR between North Carolina, Georgia and then down in the Jacksonville area; we train them how to properly identify different fishing vessels and their activities from the air. From that, all they do is report that back to our sectors or our local command centers on land.

Therefore, if they see something out there, then that gives us more of an incentive to allocate a float unit or a cutter to go out there and actually patrol, board the vessel and assure compliance in whatever they're doing. That is one step we've taken to maybe make not so much more hours out at the MPAs, but make the time out there more effective, because we're going to be identifying vessels that are out there beforehand as opposed to just going out there and looking to see if there are actually vessels out there.

Some of the complications we have; some areas allow some types of fishing but not others; so for an aircraft to decipher what type of vessel it is, what type of gear it is using, and then go on to say, well, they are fishing for dolphin and wahoo or they are fishing for snapper grouper; it is going to be very difficult for them to decipher all the information from the air.

Obviously, that is a restriction that we have with the aviation personnel of not being able to gather all the information that is pertinent, especially for like a Snapper Grouper MPA. Going on to some of our data, obviously we have some major cutters that have patrolled the MPAs. A lot of the times what we do is we have larger cutters that are coming from the north, whether it is Portsmouth, Virginia; Portsmouth, New Hampshire; New Jersey, and so on and so forth; these larger cutters are on their way down to the Florida Keys to conduct other operations besides living marine resources.

However, the one thing we have begun doing is tasking these units on their transit south to patrol these different Deepwater MPAs. That is one step we are taking that we do have these other units, not necessarily the ones that we would use on a routine basis to patrol the MPAs; however, because they are in the area, we have asked that our district representatives order these vessels to patrol these different MPAs on their ways north and south, therefore, increasing the amount of on-scene time we have with these different areas.

However, talking about the numbers and enforcement options has been – well, in Fiscal Year '13 – I don't have Fiscal Year '14 numbers – Fiscal Year '13 was zero. It is not a problem. I think it is probably maybe a good thing, but we're not finding a lot of vessels in the MPAs is the data that we're getting.

We have a lot of vessels that are not – a lot of different operational commanders that are not necessarily deterred, but a lot of them are reporting back saying that we're going out there, we are patrolling in accordance with our patrol plans; however, there aren't any vessels there. I don't think that is necessarily a bad thing. I think that just means nobody is violating any MPA regulations, because they are not out there illegally fishing for whatever it may be. That is the data for Fiscal Year '13.

MR. JOHNSON: If we could hold our questions until the end of his presentation, it would be helpful.

LT. MASTRIANNI: I believe that is the end of my presentation.

MR. PERRETT: Okay, Robert, can I ask a question now? Do you have radar capabilities, satellite capability, any other technology that we can use to see who is out there – I mean, not necessarily who but when people are in the areas?

LT. MASTRIANNI: Radar capabilities are restricted to whatever operational platform is in the area. Now if it is a cutter, 65 foot, 87 foot, and so on and so forth; the larger the cutter obviously the larger the range of the radar. However, you are still looking at about 20 to 30 nautical miles, maybe a little bit more for our 210- and 270-foot vessels.

If we have a C-130 in the air and we can allocate hours for that; then they are obviously up to like 100 nautical miles of range with the radar, which is one thing why we are trying to push the

aviation. However, it is more difficult for me to convince the operational commanders that we need to allocate like a C-130 or a 65 Helicopter to go out there and patrol these MPAs if we're not seeing any vessels there.

From time to time we do allocate a 65; I say a 65 – a 65 is a helicopter that we use in the Coast Guard to go out and patrol these MPAs when they have the time and available resources, and they're coming back with the same information. It is like, yes, we're going out there, we have no problem going out there, we enjoy the mission; however, we're not seeing any vessels.

Therefore, they have to report that up; and again the information comes back down. I'm going to reallocate this unit somewhere else if we're not finding any vessels there. But, yes, we do have capability. We do not have satellite capability for tracking unless VMS is obviously out there and people use that, but no satellite, per se, tracking ability.

MR. JOHNSON: I have a question. I fish out of St. Augustine and Jacksonville. Mayport Naval Air Station has got planes in the air every day. Is there any kind of way that the Navy could be involved in some of this? They fly over me every day, literally every day either jets or C-130s. It seems like that they're logging a lot of hours out there just flying around.

LT. MASTRIANNI: That is not an option that we have pursued. Obviously, in theory any aviation unit, whether it be military or otherwise, could be used to at least identify fishing vessels, their locations and their activities and then be able to report it back to the Coast Guard or any other local law enforcement agency that exists.

However, they do not have the enforcement capabilities. Right now the Coast Guard; even the aviators have the enforcement capabilities of identifying vessels, hailing them on the radio, properly identifying if possible a violation. Now for an aviation unit, that would have to be something like using longline in an area that longline is prohibited.

They would not be able to see that somebody has undersized snapper on their vessel, obviously, or some other type of violation that is more specific. However, we have not in particular reached out to the naval assets to see if they could report back information on different types of fishing vessels.

MR. JOHNSON: I was just thinking if they were in the area, if they are in the MPA, at least they could just say this vessel is inside the MPA.

MR. ATACK: On the aircraft that do patrol or go over the MPAs, have they got the video capability and the GPS location capability so if they can't identify it while they are right there, but could the video be looked at to see if there is the wrong type of fishing taking place?

LT. MASTRIANNI: Yes, absolutely. All of our aircraft do have video capabilities; they do have the GPS capabilities. They do have real-time stamps on all the video they take, so it does say the date, the time, the location, and so on and so forth. All that information can be used to create a case against a vessel.

However, one piece of video may or may not – and it is obviously up to NOAA lawyers for them to determine whether it will actually make a case or not. However, what they can do with that

information if they see a vessel that is out there fishing more than once; that is added documentation where they can come back and say here is video of Monday; here is video of Friday and so on and so forth to develop a trend.

Therefore, that gives us just more information to set up our patrol plan or just allocate a surface unit to go out there when the aircraft is out there saying there is a vessel in this location; I believe he is in violation of some regulation, using his job aid that we provide him, and therefore is there any operational unit, a float unit we can send, and we will try to get one out there if one is available as soon as possible.

MR. PERRETT: One more question; what is the penalty or citation if you do find somebody out there in the MPA fishing for bottom fish?

LT. MASTRIANNI: Sorry; could you say that again?

MR. PERRETT: What is the penalty or the citation that you would issue them if you find them in the MPA illegally fishing? What is the penalty?

LT. MASTRIANNI: We use a form called an enforcement action report, which is basically we create a case package using a five-page document that lists all the pertinent information about the vessel, the master, crew members, what they were fishing for, location, dates, time; so on and so forth. What we do is we create that.

We add documentation in terms of video and/or photos, and we place that case package through our district command, which forwards it on to law enforcement or the NOAA lawyers in St. Petersburg, Florida. Now, what NOAA has us issue is what we call a fisheries violation, which isn't a specific penalty.

It doesn't say on the ticket itself or the EAR that you have been fined $1,000 or you are just getting a written warning and so on and so forth, but what it does is it says you were in violation, here is the documentation saying why you were in violation, and that this is being forwarded to NOAA for adjudication.

We don't actually determine on scene the specific penalties that will be allocated, because NOAA has the capability of going back into the records and seeing if this is a first-time offense or they are multiple offenders; and therefore if it has been a multiple offense by this either master, crew or vessel, then obviously the penalty is going to be greater.

MR. FEX: To answer your question; there were two vessels in my area that got caught inside the MPA. Their landings were seized and they were violated I think a $1,500 fine. To answer that question; but it was a couple years ago.

MR. MOSS: You had mentioned that the cutters can go out there for multiple days. Do they do day and night patrolling or are they just patrolling the MPAs during the day time?

LT. MASTRIANNI: No; it would be day and night patrolling.

MR. JOHNSON: How do they determine which port they conduct their operations out of?

LT. MASTRIANNI: Which port the Coast Guard vessels conduct their operations out of? Well, each vessel is assigned to a home port like Station Tybee or Station Brunswick operate out of Tybee Island and Brunswick, and they have multiple small boat platforms. Now out of Charleston, South Carolina, we have an 87-foot cutter.

That is a little bit larger unit; it is able to go out for 5 to 6 days at a time and obviously go farther offshore with its fuel capacity; but that is stationed out of Charleston, South Carolina. Can it pull into other ports to refuel and gather more tools to go back out? Yes; but they are all assigned to a home port based upon the state.

MR. MOSS: I think more the question was kind of how do they determine which port has jurisdiction over which area? For instance, a boat leaving out of Mayport has jurisdiction over which geographical area; how is that determined?

LT. MASTRIANNI: All Coast Guard units have federal law enforcement in the entire EEZ. Like I was talking about earlier, if we have a vessel out of Portsmouth, New Hampshire; it may be going on its way south down to the Florida Keys to conduct alien migration eviction operation; however, that does not stop it from being able to effectively enforce regulations in the EEZ off South Carolina. Any Coast Guard unit has law enforcement authority in the exclusive economic zone. Does that answer your question?

MR. HAYMANS: Not really; and here is the reason why. One of the slides that you showed was out of Mayport; and it was 85 miles to the Florida MPA and 95 miles to the Georgia MPA. Brunswick has got a 45-foot boat that is quite capable of making that run on a daily basis rather than a cutter one. I know Tybee and other stations have similar-sized vessels. Why would it be a Mayport mission to run the 8 plus hour round trip; whereas, you would do it out of Tybee or Brunswick?

LT. MASTRIANNI: That comes down to allocating of resource hours to the different units. The reason why an 87-foot cutter out of the Kingfish area or the 87-foot cutter out of Jacksonville would go up and patrol this MPA is because they have longer capability and they will be out for four or five days; whereas, the 45, depending on the weather, can only go out there for eight to nine hours at a time.

If they burn a majority of their fuel running out there and running back at top speed, they can get maybe two hours on a scene. However, at that point they have to return to port. Now if they find a violation on board a vessel, talking to NOAA, talking to the Coast Guard, running names through our different databases and so on and so forth; the boarding of one vessel could easily take two hours. Therefore, we would rather allocate a platform that can be out there and remain on the scene for several days as opposed to using the 45 that is limited in its capabilities.

MR. DeMARIA: I think you may have already answered this question, but I want to just make sure it is on the public record. How difficult does it make it for the patrols and enforcement and what not to patrol an area where some fishing is allowed as opposed to areas where there is no fishing allowed? Is it a big difference?

LT. MASTRIANNI: Yes; it is a big difference. I could tell you from experience of being the boarding officer and now running the school that teaches the boarding officers; it is always a

complicated mission and it is complicated for me to understand it – and I do it day in and day out – just trying to learn the NOAA regulations, not necessarily doing what you guys are doing, which is actually making them, which is much more difficult; but for me to understand them just using my job aid is difficult.

Therefore, my teaching these law enforcement officers whose primary mission may not be living marine resources, it may be going out there and doing recreational boarding, maybe escorting or ensuring these cruise ships are safe in and out of port; this LMR mission is just one of the many things they are required to do.

Therefore, it is a lot easier for them to say here is a box in the water. If you're fishing in there it is a violation as opposed to them going in and saying, well, here is a box in the water, if you're fishing there with a certain type of gear for this particular species, it is a violation. However, if you're just trolling for a dolphin and wahoo or what have you, you are fine. It is not impossible by any means, and we have very smart law enforcement officers, whether it be state, local or the federal side; but it does make it more difficult, yes.

MR. HARRIS: My question is more of asset management. Understanding that you are limited in asset and capability of the assets at the different stations – and just a ballpark figure – how many times do you not do multi-tasking for mission and your entire mission is to go out and patrol an MPA?

LT. MASTRIANNI: Never.

MR. JOHNSON: Do we have any other questions for Mike? Thank you, Mike.

MS. BROUWER: I am going to attempt to impersonate NOAA Law Enforcement here for you. Unfortunately, we didn't have somebody that could come give this presentation, so I am going to attempt to do that. It is a presentation again that was given to the council at their December meeting in North Carolina.

The council asked NOAA OLE basically to give an overview of their enforcement activities in the MPAs; and this is what was presented to them. First, the MPAs that we're dealing with, as you all know, are Type 2 MPAs, which are permanent closures with some take allowed. Bottom fishing is not allowed; however, trolling at the surface is. The average distance offshore is over 50 nautical miles for the northern MPAs. Obviously, as Mike mentioned earlier, it requires offshore-capable patrol vessels or multi-engine aircraft in order to get out there to patrol these areas. The northern MPA in Florida is 60 miles offshore; again, it requires the same kind of asset.

The other two MPAs, the ones that are further to the south, are a little bit closer to shore. In 2007, when the council was deliberating on MPAs – and as you know it took many, many years to implement those areas – the Law Enforcement Advisory Panel assessed the proposed MPAs to determine how enforceable they were.

They came up with a way to rank the enforceability of these areas. A high enforceability ranking would mean that the area is easily accessible with existing assets and maybe you would require

some additional funding to maintain adequate patrols. Then there was a moderate category, which means that some additional assets may be required and likely additional funding as well.

Then the low enforceability rating indicated that patrols of those areas would only occur during an organized enforcement detail with federal partners such as NMFS or the U.S. Coast Guard, as Mike described to you earlier. Low enforceability indicates that the states do not have the capability to enforce these areas and that additional funding is essential in order for them to do so. That is the ranking they came up with and then they applied it to the MPAs.

As you see, most of them are in the low enforceability category. There are only two, the ones that I just mentioned are closer to shore that have a moderate enforceability ranking. This was in 2007. Then in 2013 NOAA OLE reevaluated the enforceability of the MPAs, and only one of them, the North Florida MPA was changed to a moderate ranking.

This is basically the reality of how well these areas can be enforced. NOAA OLE does not have offshore patrol assets. They provide the federal authority for states to do those patrols, and they prosecute, as Mike mentioned earlier, whatever violations take place. There have been two cases that were resolved, one in the North Florida MPA. The FWC initiated that case.

In February 2013 the judge ordered $10,750 fine imposed on the captain and the owner settled separately for $500. Then there was another violation in the Northern South Carolina MPA where the Coast Guard initiated the case; and that one ended up with just a written warning. The next few slides are just basically a little bit more detail of the enforcement effort by state.

The information, as you see in parentheses, was provided by the agencies. In Florida from 2007 through 2013, they dedicated 77 patrols for the three MPAs off that state, which totaled over 291 hours and 782 personnel hours. They have had a total of four state violations and one federal violation since 2007.

Then it goes into explaining what extra assets are needed for increased future enforcement or to at least maintain adequate enforcement. They indicated they would need to hire, train, and equip additional enforcement officers. They would need one turbine-powered aircraft for increased safety.

Future funding needs to equip and sustain enforcement efforts. They estimated that Florida would require $450,000 for one intermediate vessel and $1.5 million for a turbine-powered aircraft. This is a wish list. This is ideally if the state were to conduct the type of enforcement that is needed in those areas; this is what they would need.

In Georgia, number of patrols from 2007 to 2013 is none since Georgia cannot patrol out to the MPAs due to the current assets for those patrols. Georgia only has a helicopter as part of their fleet, and they would need a turbine-powered aircraft to patrol the Georgia MPA. There have been no citations during that time; and again the assets that would be needed for increased future enforcement they are similar to what Florida suggested.

Georgia estimated they would require half a million dollars for one intermediate vessel and $1.2 million for an aircraft. South Carolina, they do not have separate MPA patrol hours for reporting

purposes; so the patrols are done in conjunction with whatever is going on with the current joint enforcement agreement patrol hours.

Seasonal patrols are conducted when the weather and when they have time, when it is convenient. There have been no citations issued from 2007 to 2013. South Carolina has a 38-foot patrol vessel that is capable of patrolling the MPAs during seasonal patrols; but again they are limited by the number of hours that can be dedicated to that activity.

Then as far as funding needed; they estimated they wouldn't need any because additional funding would not really increase the number of MPA patrols due to other work priorities. Then finally in North Carolina there have been no MPA patrols from 2007 to 2013; no violations reported. Again, they need similar assets to adequately enforce the MPAs off North Carolina.

North Carolina currently does not have a Joint Enforcement Agreement with NOAA Law Enforcement. The U.S. Coast Guard is the only entity that is patrolling the MPAs off North Carolina. Then there is some information here on the JEA funding for the various states. Obviously, I don't have the information to answer a lot of details about this sort of stuff; but you can see the graph that Florida received or has been receiving from 2007 through 2013 between a million and 1.6 million dollars per year to help with enforcement activities; whereas, South Carolina and Georgia have each received between $200,000 and about $500,000 per year during that time period.

This is very hard to see; but these are the assets that each of the states has with their Joint Enforcement Agreements; but unless you're very interested, I'm not really going to go into that much detail. Then they provided some enforcement efforts based on the assets that were used. A lot of these things are unknown. Florida really is the only state that was able to provide the number of hours that have been used for federal enforcement.

There are two vessels that have been used for patrolling the East Hump MPA, 508 hours; North Florida MPA, 207 hours; and for the St. Lucie Hump MPA just 44 hours. This is again for the same time period, 2007 through 2013. The same concerns exist today that were outlined and brought forth by the Law Enforcement AP and other enforcement representatives back in 2007.

There is no significant influx of resources towards improving enforcement in the foreseeable future. There is no significant reduction in the demand for enforcement resources. In fact, those have been increasing. There are no new tools or accommodations to aid or assist enforcement. There has been no change as far as the regulations within the MPAs – they are still Type 2 MPAs – and VMS has not been implemented. Those two things would have a significant effect on the enforceability of these areas. That concludes the presentation. If you have any questions, I'll do my best to answer them.

MR. JOHNSON: Are there any questions for Myra?

MR. PERRETT: I guess more of a comment than a question. Again, this is the first time I've seen some of this data. What it says to me is that basically the MPAs we've got now or if we add additional MPAs, it is basically going to be on the honor system. We are not going to enforce it. It is not economically feasible; and that is just kind of what we're stuck with. Is that fair, Myra?

MS. BROUWER: I would agree with that statement, yes.

MR. HARRIS: I don't really have a question. I do have a comment that I would like to follow up on. Both Don and I sat in on a Sanctuary briefing from our local law enforcement and FWC down in our area, because we have a lot of SPAs and closed areas. We're very interested in this sort of stuff, because we're impacted by it every day.

For our areas, since as you can see here on the federal side, Florida is one of the more active states when it comes to enforcing this stuff. The Florida Keys, which takes up, what, I think it was 55,000 square miles, the entire range?

MR. DeMARIA: I'm not sure.

MR. HARRIS: But for our area we have 33 officers, FWC officers, of which two of them are NOAA-certified officers that do patrols out to the Dry Tortugas. At any given time there are only 13 officers on the water. With all the sanctuaries and everything that we have, they do patrol because they keep very meticulous records on patrolling the closed areas and the SPAs and the Sanctuary areas.

Because of the limited assets that they have; they do make the patrols, but the majority of their time is spent transiting from one patrol area to the next. What they do is when they get out there on the water, they go out to the first closure, closed area or SPA – say it is Sand Key. which sits right off of Key West – they will sit there for ten minutes and they transit to the next one, and they sit there for ten minutes and they transit to the next one. That is what his day consists of.

Just because you don't see them there – and this is what Dave Dipre told us; he said, "Just because you don't see us there, it doesn't mean we weren't there. We just weren't there when you were there." When you see these hours and stuff that is going up for MPA patrols; that is what it is like for the Florida assets as far as what my understanding of it is.

That is one of the reasons why you'll always hear me talk about coming up with the release devices and the enforceability issues, because we can't enforce what we have now, and this is telling of that tale. Just try to keep that in mind as you go forward and you're looking at enacting new closures and doing different things; we're not enforcing what we have now. Be careful with that.

MR. JOHNSON: There are always going to be people that are going to break the law. There is also a good portion of the population that adheres to the law. We can't throw the baby out with the bathwater.

MR. MUNDEN: I'm sure that the question is going through the minds of several individuals sitting around the table as to why North Carolina does not have a JEA. In defense of the North Carolina Division of Marine Fisheries, I would like to say that the Division has requested of the North Carolina General Assembly numerous times that the statutes be changed, which would allow North Carolina to enter into a JEA. The North Carolina Legislature has never made that change in the state statutes. I don't see in happening anytime in the near future.

MS. BROUWER: I just wanted to acknowledge Angus back here. He is with the South Carolina DNR; and if there are any questions pertaining to South Carolina enforcement of MPAs, Angus is here to answer them.

MR. DeMARIA: I think one option that we might want to consider is since there is not going to be the resources to adequately patrol any additional square miles out there, maybe something to propose to the council or a suggestion that since we've already got something like 677 square miles of MPAs in the South Atlantic maybe we could look at just basically wiping the slate clean and starting over again and coming up with a series of MPAs based on Expert Working Group' input and the public that would not exceed 677 square miles; so reconfigure them, or whatever you want to call it; but there wouldn't be any other additional square miles out there.

Just put them in places – we've had a lot of years to think about this, a lot of science has been done. The first time we went around with the MPAs it wasn't perfect. It could be fine-tuned a little bit, but 677 square miles is considerable. If we could just draw the lines a little differently, move them around, put them where we know spawning fish occur; it might be one option to be a little bit more acceptable to the public.

I keep constantly hearing; you take, you take and you never give anything back. Well, if we move them around, we would take an area that is a better area where spawning occurs and open up some other areas that were previously closed; so basically just keeping the same number of square miles, but thinking about it a little better and more strategically locating them.

MR. ATACK: I guess the other thing I think we should consider is looking at the Type 1 versus the Type 2. I know law enforcement would like to see the Type 1. If you're going to have an MPA; an MPA only really works if it is a no fishing zone, if the area is protected. If we don't protect the area and we don't patrol the areas, it is really not an MPA, because whatever good has become by having a no fishing area can be wiped out pretty quick with a certain amount of fishing. I think we should look at trying to make them Type 1.

MR. DeMARIA: Just one more thing; in the beginning there was a lot of talk about just making areas as large as we possibly could. Especially from some of the NGOs; they just take as much of the ocean and close it, and there will be a good chance that something will be included in there; and I think that is probably the wrong approach.

If we get smaller areas – especially Riley's Hump is a good example in the Tortugas; it was ranked top ten in the world as far as MPAs go, Number 1 in the U.S. Riley's is pretty small, and it could even be shrunk down a little more, but it was well thought out and it was put at a prime spot where these fish do spawn. I could also add that the boundaries for that were drawn by a commercial fisherman, Peter Gladding.

There was lots of science and whatnot. All this other complicated GIS stuff, it wasn't really available back then; but Peter is basically the one that just drew the boundaries. It was just commonsense, which seems to be lacking in a lot of this. That is the thing; they don't necessarily have to be huge areas of the ocean to work; and Tortugas I think is a prime example. It is not huge, but it is the Number 1 in the U.S.

MR. JOHNSON: Okay; and we're going to have this discussion later on today after all these presentations. Stacey.

MS. HARTER: I'm going to give you an overview of what we've been doing with our South Atlantic MPA Monitoring Program over the years. We focused our efforts on five of the eight MPAs, the ones that range from Snowy Wreck down to the North Florida MPA. We've been sampling since 2004 to the present, doing annual sampling every year except for 2005 and 2011.

It is an ROV survey and mapping survey as well. The objectives of our study are to determine the abundance and distribution of economically important reef fish species and macro-benthos in and around the MPAs, to evaluate the habitat of the areas with respect to species composition and abundance as well as geomorphology; and then to correlate the fishery and the habitat data and try to detect trends in fish and invertebrate populations as time goes on.

How do we select our sites where we are going to do our ROV dives? This shows the importance of mapping. In earlier years of the study, we really didn't have very many maps so our ROV dives sites were just based on knowledge from other researchers or basic bathymetric charts. Over the years we've expanded our sampling universe.

In 2011 we acquired several multibeam maps from George Sedberry; and they have been extremely useful. Then in 2012 we started getting ship time on the NOAA Ship Pisces. They are equipped with a multibeam system, so we've been able to collect our own multibeam data in 2012 and 2013.

There is also another program; the SEFIs program at the NOAA Beaufort Lab. They provide fishery-independent data for the reef fish stock assessments. They are mostly a trap-and-camera survey. However, they have done some ROV dives in the past, and I will show you where those have been done in just a minute.

They also collect mapping data; and so we've shared data with them. Then we take the maps that we collect; and we choose hard-bottom reef habitat as targeted, because that is where the reef fish species are going to be. Then each time we're out there we try to sample sites both inside and outside of the MPAs.

Like I said, it is an ROV survey; and this is a photo of the ROV that we have been primarily using over the years. It is run by UNC-W. It has got lights and it has got lasers on it. The lasers are known distance apart; so if they happen to fall on a fish, we can measure fish. It has got a tracking system; it has a digital still camera, and then the video camera which we use for the fish analysis. With the ROV, we try to run linear transects, as linear as possible.

Then when we get back to the lab, all the fish are identified and counted from the video tapes. We take notes on habitat, like what habitat type, the rigosity, slope, the amount of relief we see. Up until 2010 it was primarily just a fish survey. In 2010 John Reed from Harbor Branch joined our project; and he expanded the survey to include the analysis of the macro-benthos. However, today I am just going to show you fish data.

Fish densities are calculated as a number per kilometer for each dive. Here is an overview of what we've accomplished so far. We have four years of pre-closure data and four years of post-

closure data. We've conducted a total of 168 dives; 71 of those are pre-closure and 97 are post-closure. Our survey has mapped 145 kilometers squared in 2012 and 218 kilometers squared in 2013.

Like I said, there is multibeam data from other sources for additional portions of the MPA; but there are still large portions that remain unmapped, as you will see. Now I'm just going to run through quickly a series of slides that show you where we have sampled over the years. In 2004 we did 31 dives. You can see how they are spread out over the MPAs.

In 2006 we did 9 dives. They are in the green dots. In 2007, the pink dots, we did 20 dives. In 2008 we did 11 dives; they are shown in yellow. In 2009, 10 dives that are pink; 2010, our project did 17 dives and they are shown in the orange. Then this is the year that the SEFIS program also did some ROV dives; and they did 25 dives and they are shown in the green dots.

In 2012 is when we finally got ship time on the Pisces, two full weeks out at sea, and we also didn't have to use any of our grant money for charter vessels; so you can see we get more done when we've got more time out at sea. We did 37 dives in 2012, and they are the black dots. Then in 2013 we did 33 dives and they are the blue dots.

You can see we've expanded our surveys further north and a little bit further south; and that is to include some of these areas that the Expert Working Group has suggested for closure. Now I'm just going to run through each of the MPAs. I'll start up at Snowy Wreck and go down to Florida and show you what has been done as far as mapping and the fish results.

As you can see, the Snowy Wreck MPA, we have very little mapping in the area. Basically we just chose areas where we thought we might want to dive and then mapped that small area and then dove on it the next day. We do have a multibeam map of the Snowy Wreck itself; and I will show you that in just a minute.

This is how all of my fish tables are set up. Basically you've got a list of the species, and it is not an entire species' list. It is a subset of the snapper grouper species that we saw. The numbers inside are all densities. The first column is inside the MPA before closure and outside the MPA before closure; inside the MPA after closure and outside the MPA after closure.

The last column is simply a check if it increased inside the MPA. Please note that for today I am showing you just raw densities to show patterns and trends. We're in the process of running formal statistical analysis to see if these increases are statistically significant or not. The fish that are in the bold are the target species; so the five grouper and two tilefish species that the MPAs were designed to protect.

Anything that is highlighted is just something that I wanted to draw attention to. For Snowy Wreck we saw eight different grouper species and one snapper species. We saw three of the target species; the blueline tilefish, snowy grouper and speckled hind. A couple of the increases that I thought were interesting are the red porgy increase quite significantly from before to after, as well as the tomtate populations.

Like I said, this is a multibeam of the Snowy Wreck itself. It is about 300 feet long and you can see the scouring from the currents around it. I have a short movie to show you. I have been told

that recently this wreck had been completely fished out and there wasn't much left on it at all; but here is a video of what it looks like from our 2012 cruise.

Obviously, the snowy grouper have recolonized the area; and they are in high densities and they are all over the wreck. The fish diversity was pretty low here, though. We only saw probably four or five different species; and snowy grouper was the only commercially important species that was there.

Okay, so moving on down to the Northern South Carolina MPA; here is the mapping that has been done in and around the area. We've got a good portion of the shelf edge mapped here inside the MPA and out. This area offshore, both inside and outside the MPA, is quite interesting. It is old iceberg scours.

The scour is sand; and then on either side of it is like 1 to 3 meter relief of the rock habitat that has pretty high densities of snowy grouper and blueline tilefish, which are two of our target species. Here are some of the fish results from the Northern South Carolina. We saw 11 different grouper species and two snapper species.

We've got four of the target species, blueline tilefish, snowy grouper, speckled hind and yellowedge grouper. A couple of the target species have increased inside the MPA, the snowy grouper and speckled hind. Other big increases were the gag grouper increasing, red porgy and tomtates and vermilions; and lionfish, yes.

Moving on down to the Edisto MPA, here is the mapping that has been completed. A lot of the mapping that I'm showing you is a combination of what we have done on our cruise and what we've gotten from George Sedberry. It kind of looks like the shelf edge is a little bit more broken up in this area.

We've concentrated most of our dives on two of these shelf-edge areas. This down here is where the deep MPA is, where the artificial reef is supposed to be put. For now we've just mapped it; and it doesn't show anything as you might expect. There is nothing there right now. I don't know the status of it. I don't know if that artificial reef has been put down or not. I know if it is not down, it is supposed to be down soon.

We've got two weeks of ship time coming up in June to do more of the survey; so if there is something on the bottom by then, we'll definitely take the ROV and have a look at it. Here are the fish results from the Edisto. We saw ten different grouper species and four different snapper species; two of the targets, the snowy grouper and speckled hind. Some of the bigger increases would be gag grouper again, red porgy, and tomtates and vermilions.

The schools of tomtates and vermilions in these areas are crazy. Moving on down to Georgia, Georgia is always the area that we have the least amount of information on and that is because we don't have the mapping, as you can see. What little mapping is shown is from the SEFIS program. Because we don't have the maps, we don't know where to dive; and so anytime our cruise has gotten cut short due to weather or gear failures or whatever reason, Georgia always seems to be the first place that we cut.

However, this year I am going to make it a point to go to Georgia first and do some mapping overnight and then hopefully we'll have something to dive on the next day. Here are the fish results. We saw five different grouper species and one snapper species. You can see we haven't done any dives inside the MPA after closure; so this last column is simply due to increase after closure and not necessarily inside the MPA.

We did see three of the target species, blueline tilefish, snowy grouper and Warsaw. You will notice that the higher densities are outside the MPA for those reef fish; and that makes sense because the Georgia MPA was designed to protect tilefish, so it is going to be mostly sand and mud habitat. The hard bottom is actually outside the MPA further inshore; and so that's where we saw all the reef fish.

Here is for the North Florida MPA. Good news; the entire North Florida MPA is mapped. These two large areas of multibeam mapping is what we have collected from the navy base. All the other smaller areas are SEFIS mapping and our own mapping. Here are some fish results from the North Florida MPA.

We saw eight grouper species and eight snapper species; three of the target species, snowy grouper, speckled hind and Warsaw. Some of the more interesting increases are gag grouper, gray snapper, scamp was quite a bit higher as well as the vermilion. Of course, we all know the lionfish story, so I thought I would show you a couple slides of their densities.

As you would expect, they have increased especially in 2009. What I find quite interesting is how they decrease in 2010 and went back to the level they kind of were at around 2006. Since then they have shown another increase; and I'm kind of curious to see what 2014 is going to show, if it is going to continue to increase or if it is going to go back down.

Here it is by area from North Carolina down to Florida; and you can see the highest densities are off of the two South Carolina MPAs. My conclusions are snowy grouper and speckled hind may have shown some increases inside some of the MPAs. I say "may", because we have not done the formal statistical analysis yet. Right now we're just seeing patterns and trends and abundances.

Red porgies, vermilion snapper and tomtate densities appear to have increased inside most of the MPAs. Gag grouper densities appear to have increased in all the MPAs except for Georgia. The highest snapper density was observed in Florida; and the highest grouper diversity was observed in the South Carolina MPA.

Also, it is important to note that so far we only have four years of post-closure data. With the target species being as long lived as they are, it may take more time to realize the full effects if there is going to be any. We have a proposal in to continue our survey for three more years; and it looks like it is going to get funded. I don't think we've gotten official results yet.

Hopefully, at that point we'll have about eight years of post-closure data; and I'm really hoping at that point if there is going to be some kind of effect, we'll be able to see it then. Here is my acknowledgement for our funding and ROV support and vessel support. I'll take questions and also note we're doing this work for you guys to provide the information that you guys need. I

also am open to recommendations. Like I said, we'll be out there in just a couple of months in June. If you have things that you really want us to do, this is the time to tell us.

MR. HARRIS: Is there somewhere where this brief – is it in our briefing packet or is there somewhere online where we can get this brief? You say it was on the disk?

AP MEMBER: It is on the disk.

MR. FEX: On that Snowy Wreck off North Carolina, how deep of water is the wreck itself in? I know you have seen only snowies on it, and that might be the reason why you've only seen snowies on it.

MS. HARTER: It is about 250 meters depth. Yes, it's deep.

MR. ATACK: I had a couple questions. The numbers per km; is that per square kilometer?

MS. HARTER: It is per kilometer right now. It is like a linear density. We do have the ability – with a little bit more time and calculations; we do have the ability to do a volume area as well. We could take those lasers and estimate the field of view that we're seeing with the ROV; but for right now it is just a linear density.

MR. ATACK: Okay, the other question that I had was with your density, how much of that was the ROV versus like the traps and the cameras? I know the research I did that some fish species will swim away from an ROV because of the noise and the lights. If you're dragging it, you may not see any gags or may not see any snowy grouper even though they are there. I was curious as to how the densities might compare with the trap and with the cameras on them versus the ROV.

MS. HARTER: All the data that I presented to you today, the fish results were all from ROV data. The SEFIS program that we work with, they are the ones that do the trap and camera, and they are still in the process of analyzing data. We don't have anything from them. I agree with you that there may be some that scare away easily from the ROV and such.

We've noticed that like, for instance, the scamp and the gag; the scamp are quite curious, they're all over the video and everything like that. The gag, even though people say that they are skittish, which they are, we do see them. You just have to look out in the distance to see them. They are not going to be right on top of the ROV, but we do see them; and it has been encouraging that we have seen increases in gag over time.

MR. SMITH: I saw the observations on fish. Now in the four years what have you all seen on top of the water with people fishing in the areas?

MS. HARTER: We have seen a few people fishing in the MPAs when we've been out there. I don't have any of that data written down with me about what kind of vessel it was or what MPA it was; but we have seen people in the MPAs when we've been out there.

MR. HARTIG: Stacey, when you guys do your ROV transects within the MPAs; are those repeatable transects or are you looking at different areas every time?

MS. HARTER: We do a little bit of both. We try to expand our sampling universe every time we're out there and we also try to repeat some of the same transects.

MR.PHILLIPS: It seems like I remember Marcel maybe talking about some of these points that you are looking at are inside, some of them are outside; if they reconfigure some of these MPAs and some of the points outside are not inside or inside now outside; what is that going to do?

MS. HARTER: That is definitely going to cause some statistical problems. It is definitely going to make it difficult. I would have to think about how that would statistically be resolved, but it is definitely going to affect the data and it is going to cause issues.

MR. PHILLIPS: I just wanted that on the record; because when we start looking, we need to consider all the plusses and minuses, especially if you're going to get funding and keep doing the same thing. I understand doing the same thing over a long term and seeing where your stuff goes.

MR. HARRIS: The Snowy Wreck and the Edisto MPAs; what were the background for those closures, because I'm just sitting here looking at the numbers. For snowy grouper in those, there were more before it was closed than after it was closed; and that is both inside and outside of those two MPAs.

MS. HARTER: There is more what before or after?

MR. HARRIS: There was more inside the MPA before it was closed; and there is less there now since it has been closed unless I'm reading this chart wrong.

MS. HARTER: The snowy grouper?

MR. HARRIS: Yes; I'm looking at snowy grouper. Edisto and Snowy Grouper MPAs, both of them.

MS. HARTER: Are you looking at the snowy grouper densities?

MR. HARRIS: Am I reading that wrong?

MS. HARTER: Edisto, South Carolina. Okay, so higher densities inside the MPA. You are reading it right; that is just what we saw.

MR. HARRIS: My question is the Snowy Wreck; what was the purpose of creating that MPA if there were more snowies in there before we closed it than there are after we closed it?

MS. HARTER: I don't know what the background was. I think the Snowy Wreck MPA has got a lot of soft sand habitat in it. You've got a little bit of hard bottom in the very shallow parts of it; and then you've got nothing until you get to the wreck itself. I do think that MPA could definitely use some modification in how it is set up.

MR. HARRIS: I'm not familiar with the Snowy Wreck because of where it is located, so I don't know what size that MPA is; but it also looks like outside of it there was more before the closure than after the closure.

MS. HARTER: Yes; so I don't know what was going on there. That is simply what our ROV surveys have shown at this point.

MR. WAUGH: Part of the justification for the Snowy Wreck was to encompass the existing Snowy Wreck and a larger area for the placement of more artificial reef material in that area. What you're seeing in the numbers; I think Stacey has done a good job of explaining that these are linear transects, so they are in the process of expanding them so that we'll know what's going on.

If indeed the numbers are zero after the closure; that has nothing to do with why the MPA was created. That is saying there has been no enforcement and the fish have been caught. After you create an MPA, if you don't enforce it, then what is the expectation there is not going to be any fishing? If there is fishing in there, well, the numbers are going to be lower after the MPA.

MR. HARRIS: I'm sorry; I don't understand that line of thinking, because there were more fish there before it was an MPA and people were fishing there. Then you closed it and people supposedly stopped fishing there and then there were not fish there.

MS. HARTER: Well, also please keep in mind that we are doing the best we can, but these are small areas that we're covering with the ROV. It could be that we just happened to go to an area inside the MPA after the closure that didn't have any. It may have been a different area from where we sample before closure, too. The ROV can cover a larger distance than some other gear types, but it is still a very small area that we're looking at of the entire closed area.

MR. WAUGH: What you have, too, Rob, is sometimes your fishing effort in an area that is an MPA can be higher after it is created. You may create an incentive for people to go in there and fish, thinking that there are going to be more fish. Part of the answer you're looking for I don't think we can give you, because we can't quantify the effort in that area before the closure nor after the closure.

MR. CONKLIN: I just would like to know what time of the year these dives were made and how long was each dive?

MS. HARTER: Okay, the time of year, most of our ship time has been given in like late spring, early summer; so mostly the June and July timeframe is when we've been sampling. The length of the dive varies on how much habitat we have. If we run out of habitat, we might stop an ROV dive a little short; but usually they're about an hour and a half to two hours in length covering approximately 1,500 to 2,000 meters.

MR. ATACK: I have one comment and then I still had a question. I'm surprised at the zero inside the closure based on the video you just showed. You showed a lot of snowy grouper on the wreck. I know your pound per kilometer is a straight run. I guess if you run enough miles, that one decimal place or two decimal places would go low.

MS. HARTER: You're right; I'm glad you brought that up, because the Snowy Wreck MPA data is not in that chart. Because we couldn't run linear transects on the wreck, all we did was basically explore the area. There really wasn't a good way to calculate densities without running the transects. I'm glad you brought that up, because I forgot to mention that. The Snowy Wreck MPA data is not in the chart.

MR. HULL: Stacey, when you run these ROV transects, what is the length of the transects and how far apart are they?

MS. HARTER: Like I said, the length of the transect in time it is usually about an hour and a half to two hours depending on how much habitat we have to cover. It usually covers about, I would say, 1,500 to 2,000 meters in linear distance. How far apart they are – it all depends on the habitat or the areas that we're trying to target – I would say at least five miles apart or something like that. There was always a little bit of a transit distance in between our ROV dives. We're not doing them one right on top of the other. We are trying to cover a larger area.

MR. HULL: So one transect may possibly be five miles in width distance or is that a whole 'nother run, a tighter line, a tighter transect lines with the ROV. That is how far apart each run is with the ROV would be five miles in width, if you're covering an area?

MS. HARTER: For each dive that we do, we cover a linear distance of approximately 2,000 meters. Then we'll pull up the ROV, we'll move to a different area and then drop the ROV again and do the same thing.

MR. HULL: It could possibly be five miles?

MS. HARTER: It could be five miles away, yes. I mean it varies. It could be a couple miles, it could be several miles.

MR. HULL: It is pretty much the one linear run is basically a long linear run one time, and you move a pretty good distance.

MS. HARTER: Yes.

MR. HULL: It is not a bunch of tight runs together in one spot.

MS. HARTER: Right.

MR. HULL: That answers my question; thank you.

MS. DUVAL: Jim actually asked the question that I had about just the inclusion of the Snowy Wreck ROV dive data within the chart; that's all.

MR. FEX: Could you put up the slide where you had the Snowy Wreck and then you transected over it and then you transected over that far corner. I just want to explain something to the fishermen in the room. The Snowy Wreck right there is in 800 feet of water. That one corner over there is in 180 feet of water. That is a slow, contoured, drop-off. When you say that you searched this area and you found fish and this is the other area; there is a lot of bottom in there.

You figure from 180 out to 800 feet; that is a lot of step-downs, rolls, high reliefs and everything. I just wanted you to acknowledge that for people in the room to understand that you had said something; and I'm thinking there is a lot of area there.

MR. PERRETT: You said you typically try to map the site the day before or before you go out. What particular terrain are you looking for? Are you looking for terrain specific for Warsaw or speckled hind or just you're looking for whatever you find there. Could you elaborate a little bit on that?

MS. HARTER: We're primarily looking for any kind of relief hard bottom that is going to hopefully be good habitat for the groupers. Each different species of grouper has got its own different habitat that it's like the rigosity, the relief and everything like that. We're just trying to target hard bottom in general and any kind of relief that might give us some of the target species.

MR. ATACK: How far off the bottom do you usually tow this ROV; what kind of field of view do you get? In other words, when you're doing this transect, are you seeing a swath 50 feet wide and 50 feet off the bottom?

MS. HARTER: We try to stay pretty close to the bottom, because we don't identify just the big fish. We actually are identifying every single species that we see, even the small damsel fish, butterfly fish and everything like that. We want to be close to the bottom to identify as many of the fish as possible. We're maybe a meter or so off the bottom.

Our field of view; you can probably identify fish about five meters out distance-wise, and the field of view in width is maybe about the same, maybe about five meters or something like that. We can actually measure that with the lasers. Since they're a known distance apart on the ROV, we can extrapolate that and see what kind of field of view we're looking at.

MR. HARRIS: Do you ever go back and actually run the same track that you have historically just to see if there has been any changes in density or conditions?

MS. HARTER: Yes. Like I said, I told Ben we're doing a combination of trying to repeat some of the same transects so we can look at changes in those specific areas and then also trying to find new areas to look at as well.

MR. JOHNSON: Okay, if there are no further questions, we'll take about a 10-minute break.

MR. JOHNSON: Okay, Tracey is going to get started.

MS. SMART: Good morning! I'm Tracey Smart. I work with the MARMAP Program and the SEAMAP South Atlantic Program at South Carolina Department of Natural Resources. I work with Marcel Reichert; so we've been putting this presentation together. I am going to start with an overview of our sampling survey and then move into some of the results for recent years for the pre-designated MPAs very similar to what Stacey did for you earlier this morning.

The Southeast Reef Fish Survey, or SERFS, is a fairly newer acronym that we're using to describe a collaborative regional reef fish monitoring effort. The SERF Survey has three programs that are involved in it. This includes MARMAP or the Marine Resources Monitoring

Assessment and Prediction Program, which is housed at SCDNR. Funding is provided by NOAA. The MARMAP Program began around 1972.

Specific to what I'll be talking about today; they began using Chevron traps as a primary sampling gear in 1988, and longlines in 1996. The data that this program then houses is both historical and current data. SEAMAP South Atlantic or the Southeast Area Monitoring Assessment Program is also at DNR; funding provided by NOAA.

The SEAMAP Program has been around for a long time, since 1986; but in 2009 a reef fish complement was developed and they came into the SERFS Program providing support for Chevron traps and longlines; and so this is primarily current data. Then SEFIS, the Southeast Fishery Independent Survey, which Stacey mentioned earlier, is housed at the Southeast Fisheries Science Center; again funding by NOAA.

In 2010 they began helping us with our Chevron Trap Survey and also developed a video survey that is complemented to the Chevron traps. Again this is fairly current data. The overall fishery-independent surveys conducted by the three programs involve a Chevron trap universe, which is about 3,100 natural live bottom stations.

The survey does not cover any artificial reefs. It is all natural live bottoms, and it is mostly low to moderate relief visited by the Chevron traps, and around 1,300 stations of known line bottom are randomly selected each year for sampling. The entire universe is highlighted on these red Xs. We cover an area around Cape Hatteras down to just around Port St. Lucie, Florida.

MARMAP and SEAMAP South Atlantic conduct our longline surveys; and these are the short bottom longline, which is around 330 natural live bottom stations of moderate to high relief; and around 220 of these are randomly selected each year when we conduct this survey. One caveat to this data stream is that the monitoring survey was halted in 2012 due to funding issues.

The long bottom longline survey is sampled – sorry, I forgot to mention the short bottom longline survey is mostly North Carolina, South Carolina, a few stations off Georgia and Florida, and those are these blue Xs.

Then the long bottom longline survey is sampled in these green blocks off of South Carolina and Georgia; and these are soft sediment tilefish grounds. Again due to funding issues, the monitoring survey was halted in 2012 for the long bottom longline. A few details on the gear themselves; the Chevron trap, as I mentioned, has been used since 1988.

The deployment of the traps has been standardized since 1990, so it is very long-term data set. They are deployed at depths up to about 120 meters. Soak time on the bottom is usually around 90 minutes. These are baited traps, both loose bait and on stringers in the traps; usually menhaden or a similar clupeidae.

They've had cameras on the traps since 2009, with some still cameras. Then we added video cameras through SEFIS in 2010. These traps collect a wide variety of fish, including snappers, groupers and many, many others. The short bottom longline has been used since 1978; but the standardized deployment came to use in 1996. It was halted in 2012, but we have actually just recently received funding to resume it in 2014.

These are areas of high reliefs in relatively deep depths, usually greater than 90 meters, and these are 20 baited squid hooks that are draped over the high-relief bottom for about 90 minutes. The species that the short bottom longline primarily collect are snowy grouper, some jacks, tilefish, and a few other groupers, including speckled hind.

The long bottom longline has been used since 1982; standardized in 1996; again halted in 2012. These were much longer. These were 100 baited squid hooks that are draped over very low-relief muddy bottom, usually around 200 meters or 600 feet in depth. These blocks were originally based off of Loran coordinates for where tilefish grounds occur.

We have 15 blocks that have been identified off of South Carolina and Georgia and a little bit into north Florida. Usually we put down two to four lines in each block when we conduct the survey. Our primary species are tilefish and blackbelly rose fish. Here are just a few details of the fishery-independent sampling in the MPAs based on this program.

We have a few general caveats; and we've actually talked a little bit about these already this morning. One of the things based on things like depth; and what we're doing with these samples is that there is ongoing sampling mortality even with catch and release. Many of these species in support of SEDAR stock assessments we collect aging structures, reproductive tissue, stomach contents, so there is sampling mortality.

Also, if we increase efforts and increase the data streams, it could result in increases in mortality. The video index that is being developed is a good possible alternative, similar to what Stacey presented today. We're also working on details of how to treat MPA data within development of indices of abundance in support of stock assessments; and there is also tradeoff between investigating and sampling new bottom versus the ongoing monitoring effort based on our funding, and also just stipulations of ship time and people time compounds.

Monitoring efforts in possibly newly designated MPAs; SERFS actually has monitoring stations, mostly Chevron traps, in a majority of the proposed MPAs within the survey boundaries, but one of the tradeoffs is that there is loss of these non-MPA monitoring stations for abundance indices if they are then converted into MPAs.

We also risk the loss of adjacent or non-MPA areas for comparison with current MPAs. This is particularly true for the Edisto and the North Florida MPAs. I am going to give you a fairly broad overview of our data for the current MPAs; and then we have some information available for the proposed later in the day.

The fishery-independent SERF Survey covers a majority of MPAs, but three of which are not expected to ever be sampled because they are outside of the survey's boundaries. In the Georgia MPA they are sampled only with the long bottom longline gear, which is soft bottom; and the four remaining MPAs have both Chevron trap and short bottom longline stations. They also have stations within about 15 nautical miles that can be used for that comparison.

We also for the majority have current sampling available and also a historic or pre-MPA establishment data stream. Again, this includes the Snowy Grouper Wreck, Northern South Carolina, Edisto, and North Florida. The data provided in this overview are through 2013; and this is an update to the data that we provided to the council.

At that point the 2013 data was not completed so we've added a year. It is only selected species, and these are simple nominal catch-per-unit effort. We have not undergone statistical analysis with any of this data to date. This doesn't account for things like variation in the dates that we've sampled or time of year or anything like that or temperature.

Just to give you an overview of what is available for the live bottom survey coverage; we have the various areas on the left-hand side, Chevron traps, short bottom longline. In particular, we have current data streams for Snowy, Northern South Carolina – Charleston Deep Artificial is not sampled – Edisto – Georgia is only that long bottom longline -- and North Florida.

St. Lucie Hump and East Hump are out of the survey's area. Some areas are very heavily sampled. For example, we had 86 stations available to sample in 2013 in Northern South Carolina versus 7 in the Snowy Wreck. I'm going to go state by state starting with the north, because that just happens to be how I read maps.

For the Snowy Grouper Wreck; it is the least sampled of all the current MPAs for this survey. We don't have any historical data inside of the marine protected area. You can see our Chevron traps in red again and our short bottom longline in this sort of greenish blue. Currently now we have stations inside in a very similar area to what Stacey presented, but it covers very little of the overall area of the MPA itself.

Most recently we added six stations to the Chevron trap universe in 2012, one in 2013. Our recent catches have been generally low, one or two red porgy per trap and a single red grouper. Short bottom longline is another data stream that has some potential. Unfortunately we only have one historical station, 14 current stations; but until we resume the survey, I can't tell you much about it. We'll have the data available in future years.

The nice thing about this is we have several areas outside of the MPA that we can use for comparison in those future years. For South Carolina, again note the Deepwater MPA is artificial reef, no known live bottom habitat, so it is not covered by the survey. For Northern South Carolina we have historical and current stations available for comparison for the Chevron trap survey.

The species I will present data for today include red grouper, snowy grouper, scamp, vermilion snapper, and red porgy. These are some of the more common and commercially important species that we collect in this area. For the short bottom longline we have historical and current stations, but it is very infrequently sampled with this gear; so the data stream is not terribly strong as of yet.

For the graphs, I'll show these stations that are within the MPAs boundaries and then this cluster of stations uses a near to or adjacent comparison. All these graphs are going to be the same basic concept. We have a number of fish per trap hour on the Y axis, years of the survey on the X axis.

We have the number of stations sampled in purple within the MPA; red just outside of the MPA. 2009 is highlighted as the year it was established, and these are, as I mentioned, simple catch-per-unit effort with some standard error bars. For red grouper in the Northern South Carolina, we've had a few years of fairly high numbers. There is a lot of variation.

As of yet it is not particularly informative as an overall trend; a lot of variation. Very few red grouper have ever been caught in that cluster near the MPA. For snowy grouper, again within the MPA in purple; we saw a little bit of uptick for a couple of years in the Chevron trap survey. No snowy grouper in that area outside of the MPA.

Unfortunately, the most recent year more low numbers of snowy grouper in both areas. For scamp, inside the MPA numbers have been very low for scamp. However, outside the MPA we've seen some increases in the most recent years. For vermilion snapper there is a lot of variation in the trap catches. There is just a lot of variation.

The most recent years in both places have both seen a bit of a downtick in the number of vermilion snapper. Then for red porgy, I was actually really hopeful at the end of last year. We saw a recent uptick in both areas. It has come down just a little bit for red porgy, but compared to 2008 and 2009 they are higher.

For the Edisto MPA, we again have historical and current stations available for comparison; and we also have some lovely adjacent sampling areas for comparison. For the short bottom longline, there have been very low catches of snapper grouper prior to 2008 at these stations. In 2008 we had no catches of snapper grouper; and then we haven't had any sampling in this area for this year from 2009 to '12, so the data I'll show is only for the Chevron trap.

It will include speckled hind, scamp, vermilion snapper, and red porgy. The same concept as before, these are the Chevron trap numbers per trap hour and the years. This is speckled hind, they are not terribly common in the survey overall. We haven't seen any in this area based on these stations since 2009.

For scamp, a few years of very high variability and a little bit of increase in the MPA after establishment. It has gone down just a bit. For vermilion snapper; again fairly high variability for this fish; and the numbers have not really shown any sort of trend as of yet. For red porgy, again we've seen similar upticks in the number of red porgy both within the MPA and outside of the MPA.

For Georgia MPA; again this is the Tilefish MPA, so there is no Chevron trap or short bottom longline sampling, but the long bottom longline soft bottom sampling occurs here, and this is the Georgia MPA. We have two blocks within the MPA, and then a couple of blocks just outside of it to use for comparison.

Again within the MPA in purple – this is fish per longline per hour – and then near the MPA in green. We didn't have any sampling in the MPA blocks in 2007 to 2008, so we only have the comparison for right after as of yet. Immediately we saw a downtick in the number of fish within the MPA, a little bit of an uptick in 2011. Hopefully, we'll get funding to resume this survey and give you some more information in future years.

Then for Florida we have information for the North Florida MPA only and the remaining are south of our sampling coverage. Again, for North Florida we have a small portion of the total area covered by our survey, and primarily the Chevron traps; and we have a cluster just outside of it for comparison.

I'll show data for speckled hind, snowy grouper, vermilion snapper, red porgy. For the short bottom longline, we have stations available but they are very infrequently sampled. The ship during the short bottom longline survey doesn't get down to this area very often, so I won't show any data from that.

For speckled hind, we have no records of speckled hind in the years of the Chevron trap survey right before the establishment of the MPAs; but we've had a few both inside and outside since then. Unfortunately, in 2013 we didn't catch any speckled hind in these areas. For snowy grouper; in general catches inside and outside the MPA have been low. We had a few snowy groupers collected in 2012 in the Chevron traps.

For vermilion snapper; I'm missing a data point, I'm pretty sure that was a zero. Our catches within the MPA since establishment have been fairly low. Both inside and outside the MPA in the most recent years have both been very low. Finally for red porgy, we've seen sort of a similar uptick since establishment in the MPA with a little bit of a decline at least outside the MPA and a fairly distinct decline in the most recent year. I think that is it. I will be happy to take any questions for this part.

MR. ATACK: I noticed that you're not reporting any of the video data in any of this. Do you have another chart or something kind of showing what you're seeing as far as near the traps?

MS. SMART: No, we don't. SEFIS is currently working on the data for the video survey. As of yet it is not quite ready for a presentation; but they are currently working on it with the goal of having that data available for the SEDAR 41 stock assessment this summer.

MR. ATACK: The data they already have, they are just kind of analyzing the data; so they will be able to some day say, okay, this is what we had in 2010, '11, and '12?

MS. SMART: Yes, the video survey covers '10, '11, '12, '13 and soon to be '14. That data will be available.

MR. ATACK: When do you think you will have that come out?

MS. SMART: I don't know, but I can ask.

MR. FEX: I noticed that your sampling was in comparison of the MPA and inside the MPA. Is that information at all used in stock assessments?

MS. SMART: As of yet it has not been. That is one of the things that is sort of on our to-do list is to try to decide whether or not we need to account for MPA stations in the indices of abundance that we produce; but as of yet it has not been.

MR. FEX: To that point, the reason I ask is because I noticed on most all of them you have seen increases of red porgies; and we just got a stock assessment that just pretty much cut us in half on them. That was my point.

MR. HARRIS: From the information that you have up there and the way you see it jumping all over the increases and the decreases; are you drawing any assumptions on the effectiveness of

the MPAs or what the variabilities could be that we might actually be able to use this information to make some sort of decision?

MS. SMART: I think the next step for this is that oftentimes our sampling in the MPA – our survey is primarily spring/summer, May through October at the latest. Because these MPAs are fairly deep, our ability to sample them is determined by weather conditions, current conditions. Our next sort of step is that we have to start looking at how to standardize the data among years for that variability, and when we can get out there, and what sort of conditions we're encountering. I think from that, we would have a much better idea on the sort of utility to it.

MR. JOHNSON: That area or at least North Florida is constantly plagued with thermocline events in the summer months. You are really not getting, in my opinion, a very accurate picture of abundance because of that.

MS. SMART: Yes; oftentimes if it is too cold, the fish are just not attracted to the traps nearly as well, from what I've been told. Maybe it's not even often, but occasionally. That is one of the things we need to take into account.

MR. ATACK: One last thing was I guess all this is in the 240 Closure Area; right? I guess you have to sort that data out for the years of the 240 Closure versus your sampling. That could impact the numbers and how they jumped up those years?

MS. SMART: Yes; that is one thing that we haven't taken into account with this data set yet is any sort of management implications. Our survey is not affected by those closures, but we also haven't correlated it to anything else that is happening that might affect the population itself.

MR. CONKLIN: I'm interested to know how you determine your stations; and then these stations, how many traps are deployed on each station, if it is just one trap or if it is more?

MS. SMART: Our universe is filled with coordinates of confirmed live-bottom habitat. That goes all the way back to the very early years of the MARMAP Program. Many of those stations were established by information from fishermen, from other research scientists. From our trawl survey, when they ran into problems, those became possible live-bottom stations.

Those have been investigated by deploying traps to confirm, looking at fish catches and also historically and more recently we have video and various cameras that have gone down. Currently we used some bottom mapping by the SEFIS Program and also their video survey to confirm whether or not we ever add something to our universe as a station.

Within a given year, we randomly select within the full universe stations that are no closer than 200 meters within each other and a circle around a single station. That is the minimum distance of any trap to another trap station in a given year. On the day of the sampling, generally we put down six traps at a time, using that minimum distance and using those randomly selected stations. They all soak at the same time with maybe a ten minute difference between all of them, but spread out enough. A given station is only sampled once in any given year.

MR. HARRIS: I just have one follow-on question. I don't want this to come across as sounding harsh; but given the inconclusive data and all the variables and the fact that you're not sampling

all the MPAs; and when you do sample them, there are very small sections of it, using varying tools between the traps and the longline gear; I just have to ask what is the usefulness of this information?

MS. SMART: For now this is the information we have available. My opinion is some information is better than none. I think the decision on whether to use this and how to use it is more so for the people who have to make decisions based on the data. We're willing to provide it to you because it exists and we're hoping that it will be useful. But whether or not you utilize it for anything is, unfortunately, kind of on you.

MR. PHILLIPS: A couple of your slides show that vermilion and porgy numbers had gone down the last few years. Has the weight of the fish gone up? I know what we see at the dock. We're seeing a lot more two to four B-liners than we used to proportional-wise. I guess the other half of that question is if you're catching two to four B-liners with the trap; would you expect the trap to catch 3 two to fours and maybe 5 one to twos? Would the size of the fish have anything to do with the efficiency of the trap?

MS. SMART: Those are really good questions. Off the top of my head, I don't remember what – I haven't really looked at the lengths and the weights for the MPA comparison. We'll be presenting a summary of last year's sampling that will include lengths to the council in June, I believe. Off the top of my head, I really don't know for the MPAs; but it is definitely something to look at.

Then for the most part I don't believe I've noticed any sort of aggregating quality or – what is the opposite of attractant – detractant of having a really large, for example, vermilion on other vermilion or if there is one vermilion, you get hundreds of vermilion. I haven't noticed a very clear pattern with that.

MR. JOHNSON: I think what Charlie was sort of alluding to is the fishery has been very strong for vermilion and yet your survey is showing a decrease. I think that is what it was. How about the cameras; are you going to utilize that data? I know you're putting cameras on those traps now, correct?

MS. SMART: Yes; SEFIS has that data and they have readers looking at those videos and identifying and counting fish in those videos right now. Hopefully, as soon as it is available to us, they will be willing to present it to you.

MR. FREEMAN: How many total cameras are on them; does each trap have a camera on it now?

MS. SMART: Currently each trap has a camera on it. We have a Canon video on one end of the trap facing away from the mouth; and then we also have a second GoPro facing in the opposite direction. That allows us to have sort of two independent measurements of habitat. Currently the Canons are the only ones that are being used for fish counts; but there is a second possibility if something happens to one of those Canons.

MR. FREEMAN: Do you happen to know the number of total traps deployed last year?

MS. SMART: I should; I want to say it was somewhere around 2,500. No; Joey just did a map yesterday of it.

DR. BALLENGER: To answer your question, I think there were about 1,100 monitoring stations sampled last year with about 1,600 total Chevron trap stations sampled with the actual number being sort of proposed new areas of live bottom that we hadn't previously sampled before. Does that answer your question?

I would also like to really quick, if I could, follow up to Charlie's question. Keeping in mind that these trends in abundance that we are providing right here are a very small snapshot of our overall sampling intensity for the given year; so even though we may be seeing a downtick in the areas right around these MPAs with certain species, if we included all the stations we sampled in a year, it may be a different pattern. We do tend to provide an annual trends' report – an update we provide to the council every year looking at relative abundance trends for certain snapper grouper species that encompasses our full data set.

MR. ATACK: We did some work with the underwater video and counting fish; and I know how many fish there are to count when you're talking about all the species. You are counting the sardines and you're counting the tomtates and the B-liners. I understand some of the problems you're running with.

I would hope that if you look at some of the less number of fish like grouper and scamp and those species, where there is a lot less to count, that maybe you can start using that data sooner than the issues you're having with all the maybe B-liners or porgies; more of the fish that are in larger schools.

MS. SMART: Yes; that is very true.

MR. HARRIS: Just a technical question; how do you get your batteries to last more than 15 minutes on a GoPro? Mine won't last longer than that.

MS. SMART: We spend a lot of time charging GoPros; maybe that's why.

DR. ERRIGO: For everyone that has a lot of question about the video index and all that; I just thought I would tell you guys that May 20th to the 22nd there is a workshop that is going to discuss how to use the video data to create an index. That will go through scientific review to look at the methodologies that we'll be using in the South Atlantic to actually create an index of abundance for each of the species.

There are lots of different ways you can use video data to get something useful. Because they have all these hours and hours and hours of footage; they are not going to count every single fish and every single second, because you'll get recounts. There are different ways of doing it. That is May 20 to 22. Video is being processed now as we speak. I haven't heard anything about where in the process they are.

They pushed the SEDAR 41 Data Workshop into August because they are anticipating having that index hopefully ready by then. I think that is probably around the time we'll actually have useful information from the video index. That is kind of the timeline. Once that is together and

we have something useful that we can use; I think from that time on we'll probably have something. Hopefully, we'll be able to create other indices for other species and be able to actually look at trends from the video for things other than just red snapper, which we'll be seeing in the summer.

MR. JOHNSON: Okay, we've got Joey impersonating George.

DR. BALLENGER: Yes, as Robert alluded to I'm going to be giving this in lieu of George Sedberry today as I believe he was unavailable due to some sickness that he had, the flu or something or another as we mentioned earlier. This is going to be some of the recommendations that came out of the South Atlantic Fisheries Management Council Marine Protected Area Expert Workgroup.

Myself and several other folks in this room were all part of this working group; and myself or possibly some others can answer questions later on. Here is actually a list of the participants in the MPA Working Group; and it was composed of both scientists and fishermen. The scientists were coming from throughout the South Atlantic Region and also other regions of the U.S. who have worked with snapper grouper species in other areas.

Fishermen were represented by both commercial and recreational fishermen from throughout the South Atlantic Region. The goal of this working group was to support the fishery with minimum impact to fishermen while using ecosystem-based management to end overfishing of speckled hind and Warsaw grouper.

This was basically to sort of look at alternatives to the 240-foot closure in the South Atlantic Fisheries Management Council's Region. There are a couple of meetings that occurred. The first one occurred in Pooler, Georgia, in May 2012; and the second on was in Charleston, South Carolina, in February 2013. What type of data did the working group participants consider?

Well, they included information regarding point observations on occurrences of speckled hind and Warsaw grouper consolidated or combined from various data sources ranging from fishery independent surveys to headboat logbook data, charterboat logbook data and so forth. Nick Farmer primarily worked on this, developing a spatial classification model and a geographic distribution model for the occurrences of speckled hind and Warsaw grouper throughout the region.

We looked at some information regarding how much protection could be afforded to these species per kilometer square of enclosed area or protected area. We looked at spawning locations and connectivity between stocks, and considered those impacts, and also the potential impact on snapper grouper landings. I'm not going to go through this in exhaustive detail, but here is just all the various data sources that we compiled to give us information about higher abundance locations of speckled hind and Warsaw grouper.

They range from a range of fisheries data, fishery-dependent data, including headboat logbook data and reef fish observer data, as well as fishery-independent data deriving from the MARMAP Program, the SEFIS Program and other programs, including Stacey's group with the ROV work.

One thing to keep in mind is these data sources are somewhat variable in the data quality or the resolution they had as far as spatial location data was concerned, depending on the data source. When we pulled all these data together, here are two figures that are basically generated showing the distribution of point observations of speckled hind and Warsaw grouper throughout the South Atlantic Region by data source.

One thing to keep in mind is one of the least – I won't say least accurate, but the lowest resolution data source as far as location was probably from the headboat observer data. That was based off the forms that they had to fill out that they only could identify one location fished per fishing vessel.

So if they did multiple trips to multiple areas or multiple areas within a single trip; they were only identifying to one location fished. Those are those red Xs you see spread out there on the maps. Based on this information, using a GIS framework Nick Farmer and some others worked on developing a spatial classification model looking at the areas where speckled hind and Warsaw grouper were more frequently encountered.

It is a little bit difficult to tell here, but basically they classified the habitat between 25 fathoms and 100 fathoms into either known speckled hind or Warsaw grouper occurrences, probable speckled hind and Warsaw grouper habitat or not appropriate habitat. You can't really see in this map, but in your briefing book you can see a bigger version of this.

The red on this map identifies known occurrences of speckled hind and Warsaw grouper or known habitat. There is some green in there as well that represents not appropriate habitat or where speckled hind and Warsaw grouper are not expected to occur for each species. Overlaid on this is all of the MPAs, current MPAs and potential MPA sites considered by the Expert Working Group during their meetings in the black boxes.

In addition to this, another model was developed looking at the geographical distribution of speckled hind and Warsaw grouper taking into account habitat type and other factors. A general pattern emerged to where it was predicted that speckled hind would generally occur in the more northern portion of the South Atlantic Fisheries Management Council's jurisdiction, particularly off the Cape Lookout/Cape Fear region; whereas, Warsaw grouper based on this prediction model was suggested to occur more commonly in the southern part of the South Atlantic Fisheries Management Council jurisdiction.

One thing to note here is that due to lack of data availability, lack of observations for the Warsaw grouper model, we're not trying to predict the frequency of occurrence or the habitat suitability for Warsaw grouper south of 28 degrees north; but based off of anecdotal information, we do believe that they are found there in fairly high numbers, higher abundances.

Based off of this geographic distribution model and the list of potential MPA sites that the Expert Working Group considered, we were able to calculate the protection afforded to each species per kilometer squared enclosed within each of the MPA sites. That is what is being shown here in these figures. The figure on the left is showing you the percent habitat for that species enclosed in each MPA; and the one on the right is showing the percent stock or the total stock that is predicted to be occurring within each of those MPAs.

The brown/orange bars are representing speckled hind and the green bars are representing Warsaw grouper. For percent habitat per kilometer square, we see that in general the Malchace Wreck off of North Carolina is providing the most efficient MPA. The pattern somewhat changes as far as a percent stock enclosing an MPA with some of the ones off of Georgia, St. Simons and Georgia reconfigurations; offering more efficient protection.

One of the other things that we were trying to take into account was the potential siting of MPAs with the areas of spawning locations and the potential connectivity between these spawning locations and other habitats within the South Atlantic Bight Region. Unfortunately, there are few documented speckled hind or Warsaw grouper spawning locations.

What we do indicate is that there may be some spawning occurring along the South Carolina Shelf Area for speckled hind and potentially Warsaw grouper as well. Some data suggested or some information from fishermen brought to the table suggested there is an area off the Keys called the Warsaw Hole, which may be a historic Warsaw grouper spawning aggregation site. I'm not sure what TSER is referring to here.

AP MEMBER: Riley's Hump.

DR. BALLENGER: Is that Riley's Hump? Okay, sorry, that's one of the drawbacks of not necessarily putting this presentation together. Also off the Florida Keys, Dry Tortugas area off of Florida. Also, taking into account some earlier work in some other areas regarding snapper grouper species suggests that certain biogeomorphology or geomorphological features tend to be areas where spawning aggregations occur for snapper grouper species for related stocks.

We used this information and the bottom mapping data that was available to identify some other important sites. We haven't necessarily confirmed spawning in some of these, but we suspect that spawning is occurring there. Beyond this, we were also trying to keep in mind that the general current pattern in this region suggests a south to north flow of larval transport via the Gulf Stream, but potential retention zones due to the eddies coming off the Gulf Streams within the South Atlantic Bight, which we think will probably give a high degree of connectivity between some of the potential sites that we are proposing.

Another thing we wanted to try to account for was potential impacts that these proposed MPA sites may have on associated stocks. We basically looked at and tried determining species that co-occurred with speckled hind and Warsaw grouper and they are often captured at the same time in the same locations.

We then looked at the distribution of the commercial and headboat fishing effort to predict what percentage of impact on landings they would have if these MPAs were enacted. Some of the assumptions that are made with this are that landings are uniformly distributed in logbook areas, that historical locations for landings are predictive, and that there would be no effort shifting in the industry if MPAs were enacted.

Here is just based off of the logbook data we had available. On the left you see the commercial landings distribution. I believe that the commercial landings distribution; the distribution of landings was broken out by the 1 degree commercial grids, 1 degree grid, and then split out into 5 fathoms wide depth bend; so it is sort of bend based off of latitude and depth.

What we see is there seems to be a high degree of landings around the Keys area here, a high percent of commercial landings around the Keys area, off of northern Florida, southern Georgia coast, then northern South Carolina/southern North Carolina region.

For the headboat logbook data, the distributional landings was broken down into one-sixth by one-sixth degree latitude grids. That is being depicted here on the right to whereas you're going from cool colors blue to red colors hot. You get a higher percentage of the headboat landings occurring in those cells.

When the Expert Working Group was meeting, we were considering a broad suite of options as far as how we could go about potentially proposing MPA sites. We are basing our recommendations upon the following criteria. One, does the location contain relatively high numbers of one or both of the groupers of concern, being speckled hind and Warsaw grouper, based on either point data observations or the distribution modeling.

The second criteria we were keeping in mind was is it an area with high bycatch where protection would achieve the stated goal of reducing bycatch? One of the stated goals of this exercise was to reduce the bycatch mortality of speckled hind and Warsaw grouper. Thus, potentially we could achieve more bycatch reductions in areas of higher fishing landings or higher fishing intensity.

The third consideration was can a site be designed to reduce socioeconomic impact on the industry and others? Four; does this site contain potential spawning locations? Five; is there connectivity between the sites; and, six, are sites spaced to provide fishing opportunities between sites? We didn't want them all clustered together in one area.

Nick Farmer has sort of put together a video sort of showing some of the different MPA recommendations made by the Expert Working Group. When I start this video, it is basically going to be a flyby starting from the south, the Dry Tortugas/Keys area and going up the coast of the South Atlantic, showing some of the different potential MPA sites along with the bathymetry data available for those sites; and a 3D framework showing what type of features these MPAs are on.

Also, I just wanted to point out you will see like these blue squares and these red squares popping up. Those are actually observed point observations for speckled hind and Warsaw grouper throughout the region. It looks much better on my computer when I ran it and saw it this morning; another drawback of it not being your presentation. Unfortunately, that didn't come out too well, but it is a nice visual. It gives you an idea. Hopefully, we can maybe see if we can look at this later or we can get this to you under a format.

It definitely gives a good representation of some of the geomorphological features that seem to be coming a feature that we tend to see these species aggregating around or occurring around. Stepping right through, I am going to start now going through state-by-state basis about the Expert Working Group's recommended MPAs, either being reconfigurations of current MPAs or potentially new MPA sites.

I'll start with North Carolina and move south from there. Off of North Carolina, out of the potential MPA sites the working group considered, we recommended four MPAs basically being

created; one being the Malchace Wreck, then the area called the 780 Bottom, the South Cape Lookout Area.

And then where this original Snowy Wreck MPA was, Stacey alluded to it earlier, the actual wreck is located out here in deeper water whereas there is some natural habitat occurring in other portions of that MPA. We've recommended reconfiguring that and breaking it into two separate MPAs; one protecting that artificial reef site around the Snowy Wreck and one encompassing more of the natural live-bottom, hard-bottom habitat along the shelf break.

Just giving you the idea; I'm going to step through this in a little bit more detail here and show also some other potential sites that the Expert Working Group considered on a state-by-state basis as well. Off of Northern North Carolina we considered several sites, including the Manuela Wreck, the Malchace Wreck, the 780 Bottom; an area called the North Cape Lookout 3 designated as.

Out of these, we recommended that the Malchace Wreck and the 780 Bottom be instituted or considered for potential MPA sites. We did not eventually recommend the Manuela Wreck or the North Cape Lookout being considered, but they are still available depending on potential options.

I'm just going to explain this graph in a little bit more detail here, because we can see several of these figures coming through. They have the general format; the Xs designate point observations of speckled hind. I don't see a plus – there is a plus. That is the case of a point observation for a Warsaw grouper.

These red stars correspond to point observations of either a speckled hind or a Warsaw grouper available from headboat logbook data; but keeping in mind that those are that one-sixth by one-sixth latitude grids or the logbook grids, and they are only giving one location per trip; so if you're fishing in multiple areas, that location area may not be quite as accurate.

You will also see – you saw a lot of this in Stacey's presentation earlier – in certain areas we have bottom mapping data that is being shown here in these different colors. Moving slightly south in North Carolina, south of Cape Lookout, around Cape Lookout south; we considered several areas for potential MPA sites, including North Cape Lookout 3, North Cape Lookout 1 and North Cape Lookout 2. For people that are familiar with this area; that is generally the Big Rock Area of North Carolina.

In the end we did not recommend these sites as potential MPA sites. Instead we opted to go with a South Cape Lookout Site where the high frequency occurrence or a lot of point observations of speckled hind occurring in this habitat in this area. Here is just another figure as well based off of the MARMAP Fishery-Independent Survey Data. Each start represents an observation of a spawning snapper grouper species from our Chevron trap or short bottom longline stations.

It is not necessarily speckled hind or Warsaw grouper; because the previous work suggests that where you have spawning for one species of snapper grouper, you tend to have spawning for multiple species. This we were using as a proxy for potential spawning aggregation sites for speckled hind and Warsaw grouper as well.

We noticed that one of the justifications for the South Cape Lookout Site was this high frequency or relatively a large number of MARMAP spawning observations for snapper grouper species. One thing to keep in mind with the fishery-independent data is this is only showing data for where we have sampled.

It is very likely that there is habitat between these, but we just have not sampled those areas. Here is that Snowy Grouper Wreck once again, just showing it off in higher detail, showing the actual location of the Snowy Grouper Wreck, with a smaller MPA around this wreck being proposed; then a reconfiguration of the rest of it being called now the Southern North Carolina MPA, encompassing more of that shelf-break habitat.

This is the top left corner, I guess you would say, of the original Snowy Grouper Wreck. Here is another good example of something I point out are these dash lines. If you see these in any of these figures, they represent sort of other potential configurations that were discussed by the Expert Working Group but were discarded.

I mentioned we want to look at the potential impacts that any of these proposed MPAs may have or how they compare to where the commercial landings and recreational landings for the headboat fisheries were occurring. That is what is being depicted here in these figures. Here is the distribution of commercial landings with cool colors being relatively little snapper grouper landings occurring from that area; and the warmer colors suggesting higher percentage of snapper grouper landings occurring in those areas.

Those are shown in comparison to where these actual proposed MPA sites are. Here is the same thing for the recreational headboat landings. Once again cool colors are where landings or lower percentage of landings being reported; warmer colors higher percentages. Where basically we had no data, the blocks spill down, so white areas we don't have any information.

Giving you an idea of what these different proposed sites are potentially protecting, here is just a table, and it is going to be very similar for all the states; showing the area suggesting in square miles protected by each of the MPAs, what species, and where we think spawning is likely occurring in those areas; percent habitat for speckled hind or Warsaw grouper protected by that proposed MPA; and then based off the geographic distribution model, the percent of the stock protected by each of those MPAs considered.

Then the second half is showing the potential landings reduction occurring either near the recreational headboat or commercial headboat fishery for some of our more important species like red porgy and vermilion snapper and so forth. I am just going to let you have a minute to digest this one a little bit; I know it is a little complicated.

Just to make it a little bit clearer, sort of the potential landings' reductions occurring from the fisheries based off of where the landings have been reported; here it is for the headboat fishery and the commercial fishery summed by species. You see here, which is the actually the most landings reduction possibly occurring in the South Cape Lookout, North Carolina MPA; for commercial Southern North Carolina MPA.

Moving on, here is off of South Carolina, we proposed potentially three either reconfigurations of current MPAs or new MPAs by the Expert Working Group; those being the Northern South

Carolina MPA with an extension added onto that; an area called Devil's Hole; and a reconfiguration of the Edisto MPA off of southeast South Carolina; off of Charleston, basically.

Here we have a lot more bottom data available as well as we have a lot of observed point observations for both speckled hind and Warsaw grouper. Here I'm showing the Northern South Carolina Extension and the Northern South Carolina MPA. Then another area considered is called the Mid-South Carolina MPA.

Out of these, we recommended that we extend the Northern South Carolina MPA to the west to encompass more of the shelf-edge habitat as some of these observed speckled hind observations and also potential spawning speckled hind observations as denoted here by the pink/purple stars. Just to give you an idea what the bathymetry looked like in this area; here is a three-dimensional map that would have been shown in that video as well, showing the steep bathymetry contour lines drop-off occurring at the shelf break in the Northern South Carolina MPA, and how the extension would encompass slightly more of that area.

There is also some indication that it may be a snapper grouper spawning aggregation site occurring in this Northern South Carolina MPA. Moving south along the South Atlantic coast, here is that Mid-South Carolina MPA that I showed in the last figure. Moving south from there, we've got the Devil's Hole area.

We looked at several potential configurations about this area and decided that we would recommend this smaller area called Devil's Hole 3. People who are familiar with this area, it also goes by the Georgetown Hole Area as well. Then we also considered this Charleston Shelf MPA and Edisto Reconfiguration further south.

Once again, we were seeing a high frequency of current speckled hind observations or a number of speckled hind observations occurring in this Devil's Hole area. We have potentially reported spawning Warsaw grouper occurring from here. This is based off a commercial fisherman and some of the information that he provided to the process.

This Georgetown Hole or Devil's Hole area is a very geomorphological distinct feature, showing this very steep drop off, very distinctive concave nature for the shelf break that has been suggested as a potential spawning or geomorphological feature that tends to co-occur with spawning aggregation sites for snapper grouper species.

Moving further south, we have this Charleston Shelf MPA area where we had some observed snapper grouper spawning aggregation species or spawning snapper grouper species there. Then we had the original or currently implemented Edisto MPA; and the Expert Working Group basically recommended reconfiguring this MPA to make it more in parallel to the main bottom features of this region that run from a southwest to a northeast shelf break. This would encompass an area called Scamp Ridge and a lot of observed speckled hind observations. We did not recommend implementing the southern extension to the Edisto MPA.

How do these proposed MPAs correlate with the distribution of commercial and recreational fisheries? We do see relatively high percent landings of commercial snapper grouper species in both the Northern South Carolina Extension Area and the Northern South Carolina MPA area, as well as in the Devil's Hole area and the Edisto Reconfiguration.

With regards to recreational headboat logbook data, we're not seeing that much of an impact on the potential percent reduction and landings from headboat logbook data; less than 1 percent in all these potential configurations. These proposed MPAs range in size from about 81 square miles to as small as 12.5 square miles like the Northern South Carolina Extension. The Devil's Hole is about 27 square miles.

All of these we suspect are spawning aggregation sites for either speckled hind or other snapper grouper species. Here is just showing sort of the percent reductions of landings by species for the headboat and commercial. One thing to keep in mind is you are going to see these figures here on the right for each of the states; the axes does change between figures.

This one is going up to 2 percent and this is going to 5 percent. In some of these later ones, they are just going to be going up to 0.5 percent or maybe as high as 4.5 percent for headboat. Keep in mind that the axes are changing. Moving south off of Georgia, we recommend retaining the current Georgia MPA as an MPA site and not making any necessary reconfiguration changes to it.

This is because it has more of the intended purpose of protecting that golden tilefish mud bottom habitat found in deeper waters off the coast of Georgia. However, we did recommend instituting either one of two of these reconfigurations inshore of the Georgia MPA, choosing only this one or that one and not necessarily both from the Expert Working Group point of view; or potentially have the option to explore other reconfigurations of the Georgia MPA.

Other sites recommended were the St. Simons South Extension 2 Area considered by the Expert Working Group off of Georgia. As I said, the Georgia MPA Area, we didn't recommend making any necessary changes to it, because it was originally intended to protect golden tilefish mud bottom habitat found in deeper waters.

However, we did think there were potential advantages of protecting some of the shelf-break habitat just found inshore of that; so we recommend either the Georgia Reconfiguration North 2, which we didn't have any fishery-independent data from this area; but based off of commercial fishermen knowledge and industry knowledge, suggested this would be a good area to protect or this Georgia MPA Reconfiguration 1. One of these two would be recommended.

Here is just showing the distribution of observed spawning snapper grouper species. That is from the fishery-independent MARMAP data set with a lot of snapper grouper species apparently spawning in this Georgia MPA Reconfiguration in the southern region. Once again keep in mind that MARMAP has never sampled and has no sampling in this potential area.

Just because you're not seeing it there, it doesn't mean it is not occurring. Other potential options would be basically to just reorient the original Georgia MPA and make it slightly larger and incorporate the shelf-break area inshore there or possibly create two separate MPAs that are sort of not as tall, they don't have as much of a north/south extend, and they'll allow for some fishing between those two MPAs.

Off of southern Georgia we considered two additional MPAs, what is called St. Simons 2 and St. Simons Extension 2. Both of these areas had a fair number of observed speckled hind in these waters; but the Expert Working Group recommended this St. Simons Extension 2 area. Here is

once again one of those 3D maps sort of showing what the bottom habitat looks like in those areas and how each of these observed speckled hind observations are occurring right with the shelf break, right as they're falling off into deeper water in this high-relief habitat.

Here are those same figures showing the distribution of commercial landings by bin and how they correspond to the proposed MPA sites. In general we have lower impact on the potential impact on the percent of snapper grouper landings with these sites compared to maybe, say, South Carolina. Here is the same map for the recreational fishery.

These MPA sites range in size from about 45 square miles to just over 100 square miles in size. Remember that this Georgia MPA is already in place. That is the one that is currently out there and it was basically put into place to protect tilefish and potential tilefish spawning in the region. Here is a good example of how the axes change on these figures so that even though this bar looks somewhat large for the headboat fishery, you're only going out to 0.04 percent from this axis.

Here is the distribution as far as commercial landings. Off the east coast of Florida, there were several sites recommended by the Expert Working Group to be considered as MPAs, including the Fernandina Beach Area; retain this current North Florida MPA area without any modifications; an area called St. Augustine off of St. Augustine; two areas within this coral habitat area of particular concern called the Daytona Steeples and the Daytona Ledge.

Then you've got the current Oculina Experimental Closed Area; and there is an area called Push Button Hill, the current St. Lucie Hump MPA, and the Juneau Beach potential MPA. Off the southeast Florida coast, I want to note that the Expert Working Group did not specifically discuss the East Hump MPA or the Reserve Network managed by the Florida Keys National Marine Sanctuary and Dry Tortugas National Park as basically these are outside our purview.

But in addition to those, we propose one additional MPA site called Warsaw Hole located southwest of Key West. For the Fernandina MPA and the North Florida MPA, as Stacey alluded to earlier, we had a lot of bottom mapping data available for these areas due primarily to the Navy, as well as observed speckled hind and Warsaw grouper occurring in each of these.

What I'm trying to point out here from this bottom mapping data on these pink areas are basically denoting areas of hard bottom that is being mapped on these regions. You can see how the occurrences of these two species are pretty much lining up by the ridge of that hard-bottom habitat.

We also had that habitat data or that bottom mapping data available for the St. Augustine MPA shown here in this bottom right. We have several occurrences of both speckled hind and Warsaw grouper occurring in both the St. Augustine 2 and St. Augustine Extension Area. The MPA Workshop recommended just imposing the St. Augustine MPA.

Off of the Cape Canaveral area we recommended – well, in addition, as you are probably aware of, there is that Oculina Area and Coral Habitat Area of Particular Concern Area off of this Cape Canaveral Area, extending along the shelf break. This restricts anchorage in those areas. Also, they are proposing – I'm not sure and somebody can correct me if they have instituted that or not, extending that north.

For those areas, because of the restrictions on anchoring, we consider that gave basically a 50 percent protection in bycatch for those areas just because of the regulations that are put into place there. In addition to that, we did recommend that two relatively small areas called the Daytona Ledge and the Daytona Steeples Area be instituted as MPAs as well to where no harvest of snapper grouper species would occur in these regions; with the east/west borders of those basically corresponding to the east/west demarcations of that coral habitat of particular concern.

Then we proposed that this Oculina Experimental Closed Area be permanently closed to snapper grouper species; just extend that closure area. Off the St. Lucie Inlet, Florida; and Jupiter Inlet, Florida, area; in addition to the St. Lucie Hump MPA that is already put into place, we recommended protecting an area called Push Button Hill as well as an area called Juneau Beach.

In both of these areas we saw Warsaw grouper occurrences had been shown there. Once again, the St. Lucie Hump/Push Button Hill area is a very dynamic bottom area with possible indication that this Push Button Hill area being an aggregation site for snapper grouper species. Finally, that Warsaw Hole area I mentioned earlier as located off of Key West, outside in basically deeper waters than the current network of Florida Keys marine reserve areas, marine protected areas in Dry Tortugas.

Though we don't have any fishery-independent data from this region, there is historic industry data available suggesting that this is likely a very important Warsaw grouper spawning aggregation site. In regards to the potential impact on commercial fisheries and the distribution of current snapper grouper landings; that is shown here once again by those 1 degree latitudes by 5 meter depth blocks.

Here is the same thing for the headboat fishery by that one-sixth of a degree blocks. The proposed MPAs off of Florida range from fairly small – as small as 2.4 square miles to fairly large, say, the current 137 North Florida MPA. Then you have the Oculina Coral Habitat Area of Particular Concern, which is the largest; but that is already in place restricting anchorage.

Once again we expect that there is spawning of many snapper grouper species occurring at each of these areas; and the industry knowledge suggests that Warsaw grouper did spawn and do spawn in the Warsaw Hole area. And just showing the impact by species on the reduction of potential landings by the headboat and commercial fisheries; here you go once again.

So giving you an idea of how our recommendations correspond to the status quo; in the status quo scenario there is a total of 1,272 square miles that afford us some type of protection based off the current MPA network or the Oculina Coral Habitat Area of Particular Concern. This represents approximately 12 percent of available habitat for speckled hind and somewhere between 3 and 8 percent of the stock we expect to occur in these areas. For Warsaw grouper it is about 12 percent of their habitat as well and only about 5 percent of their stock based on the geographic distribution model that is predicted to occur in these currently protected areas.

The Expert Working Group recommendations suggest to increase the total area protected to about 1,900 square miles; just under that. This would afford 27 percent of the speckled hind habitat be encompassed in these MPAs; and somewhere between 11 percent and 23 percent of the speckled hind stock; for Warsaw grouper, 26 percent and 16 percent.

The potential reduction in landings afforded by these protections ranks somewhere between 3 percent to 4 percent for individual species. I also try to explain this bottom area here, because you see slightly different numbers. You see the current status quo closed area. Those are the MPAs that are defined by the South Atlantic Fisheries Management Council, excluding that Coral Habitat Area of Particular Concern. That is only 769 square miles.

We treat the Coral Habitat Area of Particular Concern slightly differently, because it has that no anchorage provision; so it is not necessarily total protection for snapper grouper species, but because of that no anchorage we expect that you'll have a reduction of bycatch due to the difficulty of fishing that because of the high currents if you can't anchor.

If you took all the recommendations of the snapper grouper, that would increase to 1,362 square miles of area being closed off the coast or an increase of about 600 square miles. With that roughly a little less than doubling the area protected; you would get almost a 3.5 percent times increase protection for the speckled hind, almost a 3 times increase in protection for Warsaw grouper for only less than a doubling of the total area closed.

With that, there have been a lot of people that have worked on this over the last couple of years. There is a fairly extensive list, but I'm sure there are some people left off here as well. I would be happy to take any questions if I can.

MR. FEX: Could you go way, way back to the beginning where you're doing the headboat in the North Carolina or South Carolina area, the grids; because some of those grids were way out there in the Unga Bunga land; I mean, past the Snowy Wreck. Traditionally if it is a real headboat, he ain't going that far. I would just like to see that please.

MR. JOHNSON: To that point, Joey; looking at this, it doesn't take into account the for-hire sector. It just says headboats. Like in Northeast Florida, there is no headboat going out to those MPA areas; but there are a ton of charterboats that do fish the shelf edge.

DR. BALLENGER: Smaller six packs.

MR. JOHNSON: And some that are multi-passenger. Those things don't show up in this.

DR. BALLEINGER: That is one of the caveats that goes with this data. However, that was the headboat logbook data where their grid system was the data we had available for use. I agree, Kenny, that it is showing that there is some headboat fishing occurring well offshore to the break here, keeping in mind that all we have to go by is whatever block the headboat recommended that we put down as far as fishing in it.

MR. DeMARIA: Can you go back to the next of the last slide, I guess it was, where it showed the total square miles? How many square miles do we have as MPAs? I was told it was 677 but it looks like 769.

DR. BALLENGER: According to this and I think Nick Farmer – well, Nick Farmer tabled this; and the current South Atlantic Fishery Management Council define MPAs as 769 square miles. The 1,272 comes into play when they are considering partial protection afforded by the Oculina Area.

MS. BROUWER: I think, Don, that 769 is the eight Deepwater MPAs in addition to the Oculina Experimental Closed Area, not the HAPC, but the actual closed area within the HAPC. That is probably why there is a little discrepancy.

MR. JOHNSON: Just speaking from my area, 137 square miles of that 769 is already the North Florida MPA. If the other ones are proposed, we will be up to 254 square miles. I wasn't involved in this; but just speaking on the behalf of north Florida fishermen, if you look at that map, those are awful close together. There is not a whole lot of area left in Northeast Florida for people to go. Just for the record.

MR. HARRIS: I have a couple questions. Obviously, I saw that come up and I used to fish up in your area. I looked at that and I am like, oh, boy, that is really going to condense your entire fleet. There may not be a need to go to a slide. Can somebody just tell me how deep the St. Lucie Hump is and Push Button Hill?

MR. OSBORNE: Push Button Hill is about 400 feet of water and comes up to 260, 280, Ben? Yes; 400 on the offshore side where it rolls down to the north; but the big south end of it there, it is 400 feet on that deep side of the south end; and immediately when you come up that face, it is about 260 there. The St. Lucie one covers like 250 or 350, doesn't it, Ben; yes. The one area proposed at Juneau and Push Button Hill is the only thing we have left.

MR. HARRIS: This isn't really part of the snapper stuff, because I just noticed up there it said that there are many snapper grouper species believed to be spawning there. What impact would closing that do to your pelagic fishery, because you've got to have some sort of pelagic fishery out there with a rise like that.

DR. BALLENGER: You mean like making it a Type 1 or something, pelagics?

MR. HARRIS: The Humps down near us, they draw tuna, wahoo, and stuff like that.

DR. BALLENGER: Absolutely, there is quite a concentration of pelagic fish there, wahoo, blackfin tuna, mahi. You have all that there.

MR. HARRIS: Okay, so obviously if that was a closed no take zone, it would affect more than just the bottom fishing.

DR. BALLENGER: It would for sure.

MR. JOHNSON: These are proposed Type 2 MPAs as it stands – they are not Type 1 – that would allow for trolling.

MR. HARRIS: Okay, and my second question is – and I know that we've discussed this over the years as far as the areas and how this entire habitat range is only looked at as far as Port St. Lucie, but we know that the entire remaining southern and then western part of the South Atlantic is also prime ground. Has there been any movement towards actually getting out there and doing some research down in Monroe County, which is probably better habitat than this?

DR. BALLENGER: That is one of the limitations. When you get south of that St. Lucie Inlet and to some degree even south of Cape Canaveral, some of the fishery-independent data that we have currently available becomes more limited because the historic sampling range of the MARMAP/SEFIS, what is currently called the SERFS Program, didn't go down that far south. I know there has been interest in developing some type of research to look at some of those areas. I think there is interest in doing that. It is always coming down to resource availability and things like that. I would be happy to discuss that after.

MR. HARRIS: I just was curious, because we're basing our entire fishery on only studying half of the available area and making decisions on that.

DR. BALLENGER: I think that is more of a concern for the Warsaw grouper distribution based off of what we saw than the speckled hind based off of the spatial distribution model and habitat distribution modeling. That seems to be the area where Warsaw grouper may be likely occurring. Based off some of the commercial/recreational industry input; we know that specie is occurring at those regions.

MR. HARTIG: Joey, based on the presentation we had before, there is very limited habitat characterization in the South Atlantic. How did Nick make the jump to be able to characterize his habitat work?

DR. BALLENGER: My understanding is NOAA has available all these coastal relief models, bathymetry models that are freely available on the NOAA Website that characterizes the bathymetry data for the region. He used this bathymetry data to sort of come up with characterizations of habitat, along with the information that was available from the SEAMAP studies of known and probable hard-bottom habitat, and combined that with where we had actually observed speckled hind in the past or Warsaw grouper; these species in the past. Basically all these lines of evidence I think were taken into account.

MR. JOHNSON: Okay, in the interest of time, we're going to have a lot of this discussion after all the presentations. We're going to have to limit our lunch today and we really need to be back here at 1:30. Myra has got an announcement to make before we break.

MS. BROUWER: Yes, just very quickly, I wanted to let the AP know that NOAA Fisheries has released a Fishery Bullet that is closing the commercial harvest of vermilion on the 19th of April; 12:01 a.m. on the 19th is when that harvest is going to close. The landings currently are at 96 percent of the ACL.

MR. WAUGH: When we reconvene, Stacey and Tracey will just go through the information that they have for those new MPA sites; and then that will finish up the discussion of the existing MPAs proposed. Then we get into the second set of presentations.

MR. JOHNSON: Okay, we break for lunch.

The Snapper Grouper Advisory Panel of the South Atlantic Fishery Management Council reconvened in the Crowne Plaza Hotel, North Charleston, South Carolina, Wednesday afternoon, April 9, 2014, and was called to order at 1:30 o'clock p.m. by Chairman Robert Johnson.

MR. JOHNSON: We can go ahead and take a seat, please.

MS. HARTER: Okay, I'll start up at the north at North Carolina sites for scoping and show you what we've done as far as mapping and fish goes in the areas that have been proposed. All this is from the same ROV survey that I presented on this morning, so methods and everything like that are the same. It was the ROV survey and such.

I am going to show you all of the sites that were considered by the Expert Working Group; and that is nine of them off of North Carolina, and we have surveyed in five of them so far. In red is the existing MPA. The MPAs that are in blue are the ones that we have done something in, either mapping or ROV or both. Then the ones in black are ones that we haven't done anything in yet.

I'll start at the top and work my way south and go through each of them and show you what has been done. This is the 780 Bottom. Here is the mapping that we did in 2013. You can see the depth range is about 66 meters down to 96 meters depth change. We did three dives here in 2013 on different features of the multibeam.

Here are a few pictures of what the habitat looked like. It was mostly low-relief rock outcrop a meter or less and some pavement. Since we've only done dives here in 2013; that data has not been analyzed yet. I'm still working on analyzing the last few dives from last year. However, while we were out on the cruise, we kept track of the snapper, the grouper, tilefish and lionfish.

Those are the species that I have to report on so far without having read all of the dives yet; so this is not a full species list. But, anyways, this is – we've got the common name here, we've got how many of them we saw. This is the transect area and then the density; and they are all listed from the highest density on the top down to the lowest density.

Here we've got the highest density being lionfish followed by scamp, red grouper, rock hind and blueline tilefish. This is the North Cape Lookout proposed area; and this is the mapping that we did in 2013. The depth change here; the red is about 53 meters and it goes down to about 147 meters; so quite a drop off there. We did three dives on various features in 2013.

Here are a few pictures from the ROV. It was a high-relief habitat about 30 to 40 meters relief overall. However, it wasn't a vertical wall; it was more of a gradual decline of about 10 to 20 degree slope and then rock outcrops on that gradual slope. You can see lots of lionfish; speckled hind, one of the target species; and we saw quite a bit of small heads of oculina. Here is a list of the species. Again, these are only 2013 dives so it is not a full species list; it is just what we kept track of on the ship while we were out there.

We've got lionfish as the most abundant again followed by scamp. We did see a speckled hind here, gag grouper, blueline tilefish and yellowmouth grouper. North Cape Lookout 2; this is the mapping that we've done. Again, there is a nice drop off here; depth range is about from 72 meters down to 120.

We did one dive here in 2013. The pictures don't really justify this very well. We didn't have very good pictures from this dive, but it is very similar to the North Cape Lookout one that I just showed you. It is a high relief, about 30 meters, gradual slope, but just not a lot of fish on it.

Like I said, limited species here, just what we saw when we were out at sea, and we've got the lionfish and the scamp.

I think this is the last one in North Carolina, the Southern North Carolina; this is the two little areas that we've mapped. They've got different depth ranges on them. This one up here is from 50 down to 133 meters and this is 71 down to 100 meters. We've done about ten dives in this area over the years. You can see how they're separated out.

Here are a few pictures of what the habitat looks like; it was mostly low-relief ledge, about 1 to 2 meters in relief. Again, we saw some more oculina in the area. Here is a list of the species that we saw, again from the highest density down to the lowest density. We've got tomtates, vermilions, lionfish and scamp are kind of your highest. We saw a fair number of snowy grouper here and just one speckled hind. That is it for North Carolina.

Moving on down to South Carolina; the working group proposed seven sites and we have surveyed in six of them so far. The only one we haven't done anything in is the Northern South Carolina Extension. Again, I'll start at the north and work my way south and show you what we've done so far.

This is the Mid South Carolina mapping that has been done. It basically covers most of the shelf-edge habitat here. We've done three dives here, one in 2012 and two in 2013. Here is the habitat. It was mostly moderate to high relief, about 4 to 7 meters, high rigosity so lots of ledges and crevices and lots of good fish habitat. You can see the school of tomtates there and a little aggregation of hogfish.

Here is a list of the species. Again, your tomtates, lionfish, vermilion and scamp were the most abundant. We saw 14 gag grouper and one speckled hind. I am going to do Devil's Hole 2 and 3 together since they're in the same area. Devil's Hole 2 is the bigger area and Devil's Hole 3 is the smaller box. You can see the mapping that's been done in the area.

The depth range for Devil's Hole 3 is 44 meters down to 244 meters; so again there is a nice little drop-off right there. We've done three dives, one in 2012 and two in 2013. First to Devil's Hole 2, this is a couple of pictures of what the habitat looks like. It was a nice 5 meter ledge, very rugose, good fish habitat. Here are some of the fish again. The usual suspects are on top; the tomtate, vermilion, lionfish and scamp and then 17 gray snapper and 4 gag grouper.

Devil's Hole 3, we did a dive on that nice big drop-off right at the southern end of it, and it was about a 40 meter relief drop. Again, no big vertical walls though, just a gradual slope. You can see some snowy grouper here in this picture. Again, this was a 2013 dive so I don't have all the species to report on, but we did see 20 snowy grouper and 11 scamps.

Moving on down to the Charleston Shelf, a good portion of this proposed area has been mapped. We've done four dives there, two in 2012, and two in 2013. Here are a few pictures. It was mostly low to moderate relief, about 1 to 5 meters, and again high rigosity. You've got scamp in the gray head phase, which has been shown to be correlated with their spawning. This was a nice aggregation of scamp as well.

Here is a list of species. We've got the tomtates, vermilion, lionfish and scamp; the same species are all on top, quite a fair number of scamps actually, and we did have one aggregation of about 20 scamps in the area; and that is the picture that you saw. Moving on down to Edisto Reconfiguration – that is this box here – it basically takes the existing MPA and rotates it so it covers more of the shelf-edge habitat. We've done a lot of dives here.

I think it totals up to like 25 dives. Because it encompasses some of the existing MPA, we've sampled here every year that we've been out. We got good coverage of the area. Here are a few pictures, low to moderate relief, high rigosity again about 1 to 4 meters, this is rock hind and amberjack. A large list of species here, the usual suspects are on top.

We did have a couple of aggregations here – actually one aggregation of about 50 scamps; and also we saw seven speckled hind and five snowy grouper. Seven speckled hind in the land of speckled hind is quite a bit. In Edisto South Extension, here is the mapping that has been done. We've done four dives here over the years.

Here are a few pictures. It was mostly low relief, about 1 meter, high rigosity, big schools of tomtates, lionfish, scamp. As you can see, that shows that in the densities they are all on top, four gag grouper, one snowy grouper. That is it for South Carolina. Georgia, like I said before, is the area that we have the least amount of information for, but we do have some to show.

Five sites were proposed by the Working Group, and we have worked in four of them so far; everything with the exception of this most northern one. I'll start with the Georgia Extension, which basically is like the MPA moved inshore to cover the hard-bottom habitat. We've done five dives there, three of them in 2004 and two of them in 2006. Here are a couple of pictures.

It was mostly sand, but there was some pavement and small one foot or less rock outcrops. Here is a list of species that we saw; tomtates, amberjack and red porgy and scamp are on top. We saw a fair number of red snapper and four Warsaw grouper. Here is the Georgia MPA Reconfiguration down here. Again, this is the mapping that was done by SEFIS.

We've done six dives in the area over the years. Here are a couple of pictures. It was very similar to the last area, mostly sand but some pavement and small rock outcrops. Red porgy were actually the most abundant followed by scamp. These red snapper and the Warsaw grouper are the same ones from the previous MPA that I showed; and that is because that particular dive was in both of the proposed areas so that is why you're seeing them twice. St. Simons 2 and the Extension; this is the mapping that's been done. We actually did this just last year in 2013.

We were going to try to dive on it, but the currents were too bad to put down the ROV, so we just got the mapping as of right now. That's it for Georgia. The last one is on to Florida; eight sites have been proposed and we have worked in three of them so far, being the northern three up here, as well as the existing MPA.

The reason for that is that we only get two weeks of ship time. We're already covering an area from North Carolina down to northern Florida and you can only do so much. We're at our range extent as it is, so we haven't done anything further south. This is Fernandina, the mapping that has been done; so a good portion of it. We did two dives there in 2012 and two in 2013.

Here are a few pictures. It is the same ledge system that runs through North Florida, but it is not quite as steep of a drop-off; but still the overall relief was about eight meters. It is nice to see the two target species here. We saw also a few juvenile blackfin snapper. Here is a list of the species; tomtates and vermilions, amberjack and scamp are on top.

We saw nine speckled hind, these three blackfin snappers were all juveniles, and two Warsaw grouper. Moving on to St. Augustine 2, it has been completely mapped by the Navy. Just ignore these ROV dives that are on here. They gave me a GeoTIFF with that text already on there, and those are actually Navy dives that they did to groundtruth the mapping, so they aren't ours.

But here are our dives, and we've done five dives over the year. Here are a few pictures, mostly high-relief ledge about 5 to 10 meters, high rigosity, but quite devoid of fish. We think at least this past year in 2013 was due to an upwelling event. We have a small CTD which we do put on our ROV for every single dive that measures depth and temperature like every two seconds or something like that; so it records it throughout the dive.

When we got the CTD back on board, we had just watched the dive and we're like, well, this is great habitat, where are all the fish? We looked at the CTD data and sure enough the temperature was at least a few degrees lower than it was in this region on other dives; so we think there might have been an upwelling event going on.

Here is a list of the species that we saw. We saw quite a few number of gray snapper, scamp; and this is the only place we've seen lane snapper, we saw five of them. Finally St. Augustine 2 Extension has been completely mapped. We've done three dives in the area. Low-relief ledge is what we saw, about 1 to 2 meters.

Again, this is the same continuation of that nice distinct ledge that is in the North Florida MPA; but down south here it was a little bit more broken up and less distinct. Here is a list of the species; the usual suspects are on top, vermilion and tomtates and scamp, the lionfish, gray triggerfish, and hogfish. That is everything.

MR. ATACK: Just one comment; I noticed there were hardly any lionfish as you went south. I was surprised there was not as many further south as you do up further north, because I know in the Bahamas and all you have a lot of lionfish and stuff, I think.

MS. HARTER: It is interesting, I think so, too. Like I showed in my other presentation, the highest densities are off of the South Carolina MPAs; but on that high-relief ledge in the Florida MPA, they haven't been all that abundant or at least not as abundant as in other areas. I'm not sure the reason why, but that is something we have observed.

MR. HULL: Has MARMAP ever considered the feasibility of setting up a permanent site like with cameras that could maybe be sending telemetry year round at a site; like some of these ROV sites, if you actually had like a station there that was permanently there with a camera and collecting data and maybe a buoy system from that and then sending the telemetry by satellite phone?

MS. HARTER: Well, we're not MARMAP; I'm with NOAA. We're doing the ROV survey and not the trap and cameras. That is not something we've considered in the past.

MR. HULL: Okay, it's just the kind of stuff I think of. It would be permanently there year round and would constantly be on site doing the job.

MS. BROUWER: Yes, Jimmy, there was a study I recall that the South Carolina DNR conducted a number of years ago where they deployed an artificial reef structure. Like you said, it was a permanent setup and they had cameras all around it and the data were transmitted somehow. They had a live feed, so you could go online and actually watch what was going on.

It was quite interesting, but the problem with studies like that, from what I understand, is just how to keep everything working properly remotely and just dealing with bio-fouling of your instrumentation and stuff like that. That may be a reason why not more of those studies are actually conducted.

MR. FEX: I don't know if this question is for her or one of the working group. I understand we're trying to save the Warsaw and Kitty Mitchell, and I think the depths were 50 meters, which is 150 feet. Why are these MPAs going in shallower than that?

MS. HARTER: Why are they going shallower than that? I can't answer; I don't know the answer to that.

MR. FEX: Well, that is going to be a concern, because that is a question that the general public is going to ask us; and I actually want to know because you are affecting even more than you intentionally are trying to accomplish. I just want it to be noted on the record.

DR. DUVAL: Just so everybody understands; Stacey is not the decision-maker in any of these MPAs, so some of these questions are more appropriate like for council staff or someone else, just so that you all understand where the decisions are coming from. Kenny, your question about why some of these MPAs went so far in to shallower habitat; I guess that is more of a question for a work group member. I just wanted to clarify that Stacey was not the decider.

MR. DeMARIA: Just to go back to what Jimmy said a little while ago about a camera and being able to view it in real time; the technology is there. There is one under Bay Honda that sends out video 24 hours a day that you can access on your computer. You can actually pan the camera back and forth on your computer. It has been there two years now and we haven't been out to clean it in two years. It is a self-cleaning thing; it has a blade that goes around. The technology is definitely there.

There is a camera like this in Grand Cayman; there is another one in California. They are getting ready to put one at Frying Pan Shoals. It is there where you can view these ledges. It would take a buoy and some type of satellite feed, but the technology is there and it is being done. I would like to see it on some of these areas offshore and use it as sort of a way to supplement some of these stock assessments. I mean that is what you see; that is what is there.

MR. HARRIS: I'll piggyback on Kenny's question. Is there somebody from staff that can tell us why some of these MPAs go outside the area that we're looking to target to protect the speckled hind and Warsaws?

MR. WAUGH: Are you talking about the proposed ones or the ones that are in place now? The proposed ones? Well, I think the MPA Expert Workgroup members here might be able to offer some more input. That effort was primarily targeting speckled hind and Warsaw. I think what they wanted to do was encompass sufficient habitat where they would expect to find speckled hind and Warsaw, too, and some of that might be shallower than some of the more recent work is showing them because they are not there.

DR. BALLENGER: I'll jump in on that a little bit. One thing that may have not been clear in my presentation is based off of the observation data we had, we focused on that 25 fathom to 100 fathom depth range for suitable habitats for speckled hind and Warsaw grouper. Some of these proposed MPAs may expand inward of those to some degree.

A lot of that had to come down with enforceability and drawing the lines that are parallel to the habitat and also wanting to have buffer zones where you might have one or two nautical miles inshore for enforcement issues. Unfortunately, sometimes that depth got quite a bit shallower in certain areas. That is something that could be looked at though. The main thing was trying to draw nice flat straight lines for enforcement ease for enforceability.

MR. JOHNSON: If there are no other questions, we'll bring on Tracey.

MS. SMART: I am not going to show any fish data with this part of the presentation. I'll just briefly go over whether or not we have stations set up in the proposed MPAs in order to continue monitoring going forth if we end up establishing any of them. I will again start from North Carolina and work my way south.

On the map you see our sampling universe is for natural live-bottom habitat; the Chevron trap in red, the short bottom longline in sort of this bluish green. The proposed MPAs are in turquoise established in purple. For North Carolina, historically we have not sampled in the proposed MPAs with the Chevron trap survey.

However, we've made some efforts to go out and look for live-bottom habitats to add into our universe in the last couple of years. Starting in 2013, we had stations available in Malchace Wreck, 780 Bottom, and the Southern North Carolina. We've done a little bit of exploratory work in the Manuela Wreck, too, I believe that we're looking at for 2014.

Based on the short bottom longline survey, we have a little bit of historic data for a few more of the proposed MPAs. It is very sparse for the 780 Bottom, North Cape Lookout 3; better coverage for the North Cape Lookout and South Cape Lookout areas, and then for the rest also very sparse. When we restart the survey this coming season, we'll have fairly decent coverage again of North Cape Lookout and South Cape Lookout and then also Southern North Carolina.

These are just the number of stations for this past year. For the South Carolina MPAs, again the proposed ones are in turquoise with our Chevron trap and short bottom longline. We have better coverage for these areas historically. In particular, for example, the Edisto Reconfiguration 3 has 166 stations historically and 177 available in the past survey season for the Chevron trap.

We have many fewer short bottom longline survey stations available for these areas. In this coming year most of the proposed MPA sites off of South Carolina will have very few stations

available when we start up that survey again, ranging between 0 and up to 14. The ones highlighted in red here I just want to bring your attention to.

The Northern South Carolina Extension, Mid South Carolina, Charleston Shelf, Edisto Reconfiguration 3, and Edisto South Extension will all encompass areas that we're currently using as adjacent or near to the MPAs for comparative purposes. Establishment of those proposed areas will switch those stations from being non-MPA sites to MPA monitoring sites.

Then for Georgia, as I mentioned before, we've only had the long bottom longline available for comparison through the Georgia MPA. The proposed MPAs in Georgia, however, overlay with the other two surveys to a much greater extent. We have quite a decent coverage with the Chevron trap survey for the Georgia Extension, Georgia Reconfiguration, St. Simons 2, and St. Simons Extension 2.

We don't have coverage of the Georgia Reconfiguration N2, or whatever, for either natural live bottom survey type; and we don't have any short bottom longline stations established in any of these proposed sites. Then finally for Florida; the northern Florida sites have a fairly decent amount of overlap with the live-bottom surveys, the southern sites a little bit less.

Push Button Hill, Juneau Beach, and Warsaw Hole 4 are not within the survey's boundaries. We have very little coverage for most of the proposed Florida sites. However, for the St. Augustine 2 proposed area, we have 49 Chevron trap stations historically. Then we'll have about 53 or so for this upcoming field season.

Then we've made a fairly decent effort in the last few years to establish sites in the area encompassed by the St. Augustine Extension 2. Again just to draw your attention to it, the Fernandina MPA; the few stations that are there are some of the closest stations to the North Florida MPA that can be used as a comparison of the effectiveness of the North Florida Site.

With that, I just want to remind you sort of some of the overall impacts of some of the proposed MPAs on the surveys. A majority of the proposed MPAs occur within our survey's boundaries. However, there are some potential impacts on designation of these MPAs on our monitoring efforts, which includes, as I mentioned before, the loss of those non-MPA monitoring stations to then becoming MPA monitoring station.

It includes the loss of adjacent or non-protected areas for comparison; and in particular Edisto and North Florida; that is a fairly decent amount of impact. Then we do need to work on how to treat this MPA sampling within the index development when we do indices of abundance. Again, we'll have a tradeoff between a directive to investigate any new live-bottom areas and the ongoing monitoring. I'll take any questions.

MR. FEX: Just to what you just said; that means that if you do put those sites in the MPAs, then the stock assessments are going to be affected; is that correct?

MS. SMART: We don't know yet.

MR. FEX: Okay, that would be an answer we need to know if we're going to extend those MPAs into those areas and are going to lose that in stock assessments that would affect that.

MS. SMART: Currently the MPA stations are included in the stock assessment indices of analysis, but we do need to look at whether or not we need to account for them in a different way.

MR. JOHNSON: No other questions? Okay, Will, are you ready?

DR. HEYMAN: I am going to talk to you about spawning aggregations in the snapper grouper complex in the Western Atlantic. All right, I'm going to roll through some things here. First of all, I kind of wanted to talk about the group as a complex, a bunch of different species all that share similar life history characteristics.

They're caught in general using the same types of gears in the same locations by the same people. Many of these, as you are all well aware, have been or are undergoing overfishing or overfished. A lot of these can be considered data-poor stocks as well. Some of them have not even been assessed.

Some of them have moved into the status of threatened or endangered, but again a lot of these different things share the life history characteristic that they spawn in aggregations. I'm going to roll through a lot of this pretty quick, because I think a lot of you know all this stuff and have seen some of it before.

I think it is important to remember that when we're trying to manage some of these species, particularly things like Warsaw and speckled hind, these larger grouper; that they can live a long time, and it takes a while for them to become reproductively mature. Anything we're talking about in terms of management; we can't expect to see results overnight.

The other thing that I wanted to kind of mention is the geographic distribution of management jurisdictions. Obviously, we know the three U.S. management jurisdictions; the South Atlantic Council, the Gulf Council, the Caribbean Council; but the reality is that a lot of these species transcend a great number of other jurisdictions, other countries, other regions.

To give you some specific, this is range data from IUCN; and you can see for example black grouper just transcends all of these different jurisdictions, as does Warsaw, speckled hind a little bit less so, but certainly we share it with other regions, yellowfin. It is just important to remember that as we're trying to manage these things, a lot of them transcend a great area beyond the area that we're actually looking at, which seems enormous even to start with. What is an aggregation? I think it is important to know what a spawning aggregation is.

It is easy to see an aggregation of fish and call it a spawning aggregation, but there are a lot of fish that just group up, right? Jacks, you see them all the time. Just because you see a big school of jacks, it doesn't mean it's a spawning aggregation. They've got some pretty detailed definitions out there. One is a 3 X increase in density; and importantly they are gathered for the purpose of reproduction.

A lot of groupers and snappers use this and they'll migrate great distances, sometimes hundreds of miles. They will all aggregate at very specific times and places, they will spawn, and then they'll leave and go back to their home areas. I will show you this spawn loss video later on, but I will not show it now.

Again, these things have this life cycle where they'll spawn, they release the eggs and sperm in the water, and they are fertilized in the water column 24 hours. The larvae then float for about three weeks through the plankton, ultimately settling in areas very different from where they spawned to start their juvenile phase.

Again, as we're talking about managing these guys, obviously we've got to think about this multiple habitats need protection. But again I want to focus in on this idea of spawning aggregations for grouper and snappers particularly. You can see that Nassau on the bottom left with the big belly full of eggs. We've seen some connectivity.

This is just pointing again to that point that these things are all connected not only by migrations, but also by ocean currents. Those larvae can be floating spawn somewhere in the Caribbean and be floating all around. I want to tell you a little story about some work that I've done in Belize and then move towards how it is relevant to the work here.

I was living and working there for a decade, very closely with fishermen and local conservation organizations, governments, universities, et cetera. We had the situation where a lot of things were happening. One, fishermen were just noting that Nassau grouper, which used to be the biggest fishery in the nation and in the Caribbean, were really disappearing.

They were also well aware of spawning aggregation sites and how easy it was to catch, for example, Nassau groupers when they were aggregated to spawn. It always happened at Christmas, so it was a great way to make a whole bunch of cash when you always need it. Based on some of this and other concerns, we put together a working group at the scale of the nation, and we really tried to involve everybody in terms of trying to understand what was happening with regards to aggregations all up and down the country.

I'll give you a little bit of details. Again, these guys know where they spawn; but if you talk to this guy, he'll tell you, oh, I know of a Nassau spawning aggregation up in the northern part of the reef, because that is where he fishes. You talk to someone else, he knows about a mutton snapper aggregation, but it is in the southern part of the reef.

They weren't aware necessarily of all the other sites or much about them; but when we started to work as a group throughout the nation, we could learn from each other. It was a pretty positive experience. Again, from an export standpoint and from a landings' standpoint, the groupers were just dropping through the floorboards. This is one of the typical sites. There was a paper published in 1965 that documented this thing.

This was one of the sites that were really well known by fishermen. They go from the middle part of the country to the north part of the country; everybody aggregates there to fish these groupers. In 1968 they were just hammering them; two tons a day they were bringing off this one little site out of little fishing dories.

I mean, these are paddleboats and small sailing boats and things like that. The reason they would stop fishing is because they couldn't fit anymore in the boat or their hands were so roughed up that they couldn't even catch anymore. They caught so many that a lot of times since the roe were so valuable, they would keep the roe and throw away the bodies because they were more difficult to store and salt et cetera; a lot of fish!

Then we go in 2001 with fishermen who are trying to fish the place. They caught nine fish that week. We saw 21 fish underwater and the place had just been really hammered. There is that in graphic terms. You can kind of see multiple recent observations in that area compared to what used to be there. Obviously, this is the sore side of reproduction for these guys.

Anyway, here is another site. The first one we looked at was in that Box Number 5. This one down here in Number 11 was traditionally known as a mutton snapper spawning aggregation site. The groupers, again around Christmas; the mutton snappers, that is more kind of April/ May; the guys just know that is when it is and where it is; and they can count on a quick couple thousand pounds of fish in a couple days.

When we began to look at it real carefully, you could see on the left a satellite image showing where the Barrier Reef is and the Atolls offshore; but when you zoom in on that Barrier Reef at that Site Number 1, this Gladden Spit Site that I'm talking about, you can see that it is a real elbow. It is on that shelf edge right in front of the reef; and it is where that shelf edge just drops into very steep water, but also where it bends in like a 90 degree angle.

Working with fishermen out there two weeks out of every month for most months of the year for three years in a row, we were able to document about 24 different species all spawning at this one little place. When I say 24 species, I'm talking about black groupers, yellowfin groupers, Nassau groupers.

I'm talking about all kind of jacks, crevalle jacks, horse-eye jacks, bar jacks, yellow jacks, also snappers. We're talking yellowtail snappers and our mutton snappers and dog snappers, cubera snappers, and they are all spawning right at this place with certain timing; but they are all kind of jammed up right at the tip of that promontory, right at the tip of that shelf.

When we brought Peter Gladding down there, who is in my mind a famous commercial fisherman for a variety of reasons – one of those reasons is for his role in helping with the Florida Keys National Marine Sanctuary, identifying Riley's Hump as a multi-species spawning site. I think you will hear more about this in a while, so I'm not going to go into that.

I will say that the place looks very similar to this and has the same suite of species that is there. When Peter saw it and heard about it, he is like, man, they should call it Gladding Spit, this is my favorite fishing site. It has all these same species spawning at that site as ours does; and it looks a lot the same when you look at it underwater. Anyway, again, working throughout the nation with all the NGOs, all the Universities, and again most importantly, in my opinion, working with all of the commercial fishermen up and down the reef and sport fishermen; we started to all follow the same protocol to try to identify and understand what it was that was happening at all these sites.

If you look at Number 5 and Number 11, they seem to share characteristics that are similar in terms of being those promontories or elbows; and the other sites in those boxes look similarly. That is what we hypothesized; we said, well, maybe it is possible; maybe it is possible that at these places where the shelf edge bends in 15 to 60 meters of water depth, right next to really steep walls into deep water, maybe that is a common thing that multispecies spawning aggregations of grouper snapper complex species all occur.

We used that protocol together to try to determine that. Again, we did lots of different training exercises, so that we were all speaking the same language. Again, how do you read a GPS, how do you understand what a coordinate is, and how do you tag a fish and put it safely back in the water; how do you do all these kinds of things?

While we were training, we were also learning, because these guys knew about these sites, they knew how to get to these sites safely and get back home. It was a real collaborative effort that wouldn't have been possible without working with this broad, diverse group of people. What we found was that each of the species seems to have both a seasonal as well as a lunar pattern in terms of when they spawn.

If you take a look at the groupers on top, they were kind of January. February, March, April; and then you move into the snappers, which are just starting to kick in when the groupers are tapering off, kind of April, May, June; and the dog snappers spawn every month of the year. But you can see that big band from January to August, basically, where lots and lots of different species are utilizing these types of sites.

You can also see from a lunar standpoint that each species kind of has a typical peak within the lunar month. The zero is full moon. A lot of the species that we were looking at are in the kind of the week to two weeks after full moon. Each species, again, there is some variation there but those peak aggregations tend to occur for those species in those times.

We mapped these spawning sites. Again, we didn't have access to really good data, so we figured out how to use just a basic, off-the-shelf Lorance thing to record lat/long and depth and put them into digital elevation models so we could see what the bottom looked like. When we mapped these things out, they looked all the same. On the right you can see them in 3D; they all look like these big elbows. On the left you can see transects that go right through the spawning sites.

On the axis you can see depth, and you can see there is that sharp bend right about 20, 40 meters of water into very deep water and all the different sites overlaid on the same axis. You can see that these sites are very similar in terms of their shape, and all of them we documented had multispecies aggregations.

Some suites of species were slightly different at each of them, but they all seemed to have these multispecies aggregations. Using that as a model, we said, well, if that is the case, we should be able to predict the locations of additional multispecies aggregation sites. In that Box Number 8, there was an area that looked very similar to Gladden Spit Number 11, Key Glory Number 5 with the Nassau groupers and these other sites.

So we said, all right, if that is the case, we should be able to find fish there; took the coordinates from the satellite image, went there with a boat and a depth sounder, dropped in the water at the right time, and found an enormous aggregation of, well, 300 black groupers; and in dives subsequently found tiger groupers and jacks and all kinds of other snappers all spawning in that same site. So there is some predictive utility to this.

About that time, based on this developing national consciousness, based on the participation of all these fishermen, based on all these other groups, we realized, wow, these sites are pretty

important and we probably ought to protect them. The minister was on board and managed to declare 11 small reserves around these multispecies aggregation sites in 2003.

It was kind of an unprecedented thing that happened. Again, he was able to do it with the support of fishermen up and down the country because they could see the benefit of what would happen. A decade later everybody I'm talking to in Belize is seeing more and more juvenile Nassau grouper up and down the reef; and, again, that is listed by IUCN as an endangered species.

You just don't see in Florida or anywhere much Nassau grouper; but all of a sudden they're coming back. I'm not going to say this was the only thing that helped that; but I think there is evidence of Nassau recovery and other species as well. It is possible there is some linkage between that closure and that recovery.

Similarly, we said, well, if that is the case, if this is the case in Belize, is it also possible that such a hypothesis may hold true at a larger geographic area? We brought together people at the scale of the Caribbean to bring all the data that we could find. In 2009 we brought everybody in the Caribbean that we could find at the Gulf and Caribbean Fisheries Institute and developed this big review of all the aggregation sites that we were aware of in the Caribbean and whittled it down to sites that we only had pretty good data on.

But that pattern seems to hold for a great number of the species for which we have good data; that is, elbows or promontories, particularly with vertical – this we just finished last year; and as part of that, we illustrated the West Florida Shelf – and this is work I think Chris Koenig and others have done; but the West Florida Shelf you've got this wall which has multispecies gag and scamp aggregations and other things; this wall edge with lumps and bumps on the edge.

Similarly, some recent work I've been doing in Mexico last year, working with fishermen there, we identified a site that looked like it had the same shape. We mapped it; we trained these guys how to dive and how to identify the passable aggregation. In fact, we predicted and recently verified another aggregation of both Nassau grouper and cubera snapper at two different sites in Mexico just this past year.

Finally, I am here to talk about the South Atlantic; and I would like to test the hypothesis that this pattern that seems to be robust enough to predict new sites in other areas may have some relevance in this region. I've had the opportunity to get funding for two different trips from Pew to work with Mark Marhefka to try to see if we can document these kinds of places in this region.

Anyway, the way we're going about it is very similar to what I used to do in Belize in terms of finding people that were interested in doing this kind of work with me and then going out and trying to document what could be a spawning aggregation site. To do that, we're using the best available bathymetric information that we can and the best information that we can find from local fishermen who know these sites.

Unfortunately, it is a little deeper than I'm used to, so I'm not diving down to look at these sites because they are in like 180, 250 feet of water for some of the species we're looking at. I've told my wife I'm not going to dive that deep anymore after we had kids. Instead what we're doing

I'm going to show you in a minute; but importantly – and I think we've heard this time and again today – what we're trying to do is collect data that is really not being picked up by other data management programs at this point, particularly and the most important, which is the MARMAP – and, again, the bulk of their field sampling takes place May through September.

But when we got together with MARMAP scientists Wyanski and Joey and others and try to put this table together, to try to understand when each of these species actually does spawn; you can see that their peak spawning period is in black; and for some of these things we don't even really know. But what you can see is that they are not going to likely catch spawning for things like black sea bass, which occur outside of the time that they're in the water.

In part this was designed to collect data that they couldn't collect outside of their area and also collect data not on the transects and the gridded long-term data collection efforts that they've been doing; but outside of those. Rather than using that nice grid of sites, we're actually going directly to sites that we think might have spawning to try to document them.

But all the data that we're collecting is going right into that process, right into SEDAR, right into their hands to be able to work up and include as part of this process. I'm not the first to do this and it's not an easy job. George Sedberry and others in the past and very recently have been trying to find these thing; they're deep. Because the populations have been fished down so heavily, it is not like we're likely to find a huge aggregation right away.

We're going to find traces of aggregations, if anything. It is a little bit more difficult to look at; and I'm hedging, but we're going to try. Again, using the data collected by the MPA Expert Workgroup, where fishermen in this room and scientists in this room and others all got together to say, hey, these are some pretty likely spots where spawning might occur for these species. Starting with that information and also collecting some additional bathymetric data, we are starting.

One site that popped out of the MPA Expert Workgroup thing, a site that Mark knows, and so we are trying there. We did a trip in February. When you look at the recently collected bathymetric data for that site, you can see it looks very similar to many of the sites that I showed you in Belize and the rest of the Caribbean in terms of a big elbow dropping off into steep water.

When you look at it kind of in a 3D, you can see not only is it an elbow; it has also got some really interesting and complex structure at that wall edge, which just adds to its interest for me in terms of its possible likelihood for having spawning fish. We go out there and we use his existing coordinates, his existing information of where he has caught some of these species in the past; use his gear, his boat, his knowledge in terms of where and how to drop hooks in these places and try to catch them.

Meanwhile we're just using normal standard bandit reel rigs that he uses and doing our best to try to locate these things and taking GPS coordinates depths, temperatures, et cetera, and pulling these things up; and fishing as he typically would fish with targeting Warsaw and speckled hind in these areas at these times.

Anyway, the other thing that we're trying to do is this high tech video monitoring system. I have a video that we can show you of what we're doing; but I've got to jump out of this real quick to

show you. This high tech technique that we're using – that is an ugly fish, I'll tell you that. We're just experimenting with this technique to try to see if it would work, see if the camera would explode in the depths that we're talking about, but just hooking it up with an L bar in his normal bandit reel rigs and using in this case a baited camera trap. Those are actually Mark's socks filled with mackerel.

I'm not sure if one was attracting and the other was repelling or if one was attracting, which one was attracting more, I don't know; we haven't evaluated all the science of this yet. Anyway, you get it down to the bottom and eventually you can see that it attracts quite a bit of attention. This is only about 40 fathoms.

But, anyway, I would be real interested in talking with others that have done this kind of video monitoring as we begin to try to put together some quantitative assessments. I don't necessarily need a quantitative assessment. If there is an aggregation, I'll be able to tell. Looking at spawning aggregations, I'll be able to tell looking at behavior and color changes and all those things.

But while we're doing it, it seems like a pretty easy way potentially if we can to try to get some quantitative numbers on densities. Whether we use socks or unbaited cameras is still to be determined; but I thought it was at least pretty easy to get an idea of what is going on down there. There is that and we'll go back to the other stuff.

We were able to collect a couple of the target species, which was great. We also lost a lot of tackle; but this was super neat, juvenile speckled hind, which blew me away to see. I mean, not only is it absolutely gorgeous, but to me it is pretty exciting given how bad these things have been beaten up. Obviously, they're reproducing somewhere because the proof is in the juveniles.

That was pretty nice. When we got back to the dock, we had it organized with SCDNR/MARMAP that they met us right there and they collected all the samples that we had brought in to work them up and be part of the SEDAR process. There they were, Dave with his crew, and incredibly efficient; pulling otoliths, pulling gonads, measuring, weighing, putting DNA samples away, et cetera, gonad tissues for reproductive status that they're taking later.

They didn't build the slides while they were at the dock; but they brought all these things back to the lab for full workup. I don't have a lot of information results to share at this point; it is just kind of a work in progress. I will be going back out in two weeks and hope to try to do more of this; but it is a way that we may try to find these types of places. In my mind and having participated in something similar, if you can get a big group of people over a pretty large geographic area to work together to identify, document, and manage sites like this, if they exist, you share a lot of information, you share a lot of benefits if you actually get some small places like this protected in that these are the multispecies volcanoes of reproduction for the entire complex of snapper grouper species that we're looking at.

Obviously, if you get these places protected and they start receding, you get benefits for commercial fisheries, recreational fisheries. You also get benefits for some of these more beaten up, threatened, endangered species that are in some ways limiting some of the catch on other species.

It is also a great way in time and place to get good data for stock assessments. We need good length/weight data, reproductive/fecundity data. We're not picking up that data in any other way; but if we are at these sites in ways collecting data in very controlled ways and collaborating between fishermen, scientists, et cetera; we may be able to actually get much better stock assessments as well if they're not too deep like many of the sites in Florida that are outrageous for diving. That's my story and I'm sticking with it.

MR. JOHNSON: Do we have any questions for Will?

MR. CONKLIN: Will, did you ever find out if those were females or males that you guys caught?

DR. HEYMAN: Yes; the ones that we caught; a bunch of each. The speckled hind that I showed you there, about this size, was immature. It wasn't reproductively mature yet. Again, it gives you an indication that these are going to take a while.

MR. CONKLIN: How old do you figure it was?

DR. HEYMAN: You know, reading the data from Ziskin's 2008 thesis; he said that females become reproductively mature by about age 3, males until about age 8; minimum age at reproductive maturity. Too early to tell.

MR. DeMARIA: Will, have you got time to show some of the video from Belize, the spawning wall?

DR. HEYMAN: Yes; and I would like very much to do that. Unfortunately, it is not in a format that can be shown through the WebEx. I would like to show it after the formal day is done and we're off the WebEx, if that is okay.

MR. FEX: On that one chart you had; you guys don't know when they spawn, the Warsaws and the Kitty Mitchells? Do you not have that information?

DR. HEYMAN: A little bit better than I showed there. If anybody has got better information, I am all ears, because that is the best information that we had when I put this together, and I actually didn't have Ziskin's paper; and I'll look a little bit more into that. But, yes, if you've got more information, I would love to hear about it.

MR. FEX: Yes, to that point, I was going to say you've got a lot of people in here that have probably caught them throughout the years and might have the knowledge of, yes, it was spawning at this time, and that might help you. If you're going to go try to find the spawning aggregation, I don't think it is going to be useful if they are not spawning. That's just my point.

DR. HEYMAN: It's an excellent point.

MR. BELL: Will, when Belize closed those little areas that they closed; was that a year-round closure, permanent closure, all-fishing closure; what did they end up doing?

DR. HEYMAN: By and large they are year round, but they are what I guess you would call Type 2, because they still allow trolling. Interestingly, and I would be shocked if this wasn't the case in the areas that you guys know, all the marlin guys go right to those same places during the tournaments. The tuna show up at these sites. The whale sharks show up at these sites. These are obviously oases for lots of different species. Yes; they are Type 2, year round.

MR. SMITH: Will, that was an excellent presentation and I enjoyed that; good one for after lunch, and it was real clear except for one thing. Are these oases or volcanoes? You called them both.

DR. HEYMAN: I think of them as volcanoes of reproductive activity and an oasis for breeding and feeding for lots of different species with cascades through multiple trophic levels; just real important.

MR DeMARIA: Correct me if I'm wrong; but it looks like these are fairly small areas, not huge, and they are closed to snapper and grouper year round; but outside those areas fishing is allowed year round, snapper grouper?

DR. HEYMAN: They recently put in a closed season for Nassau grouper, because it is so beaten up. But closed season for other species; there are some sport fish species that are closed during certain seasons, but I think by and large they are open year round. I've got to check that; I'm not 100 percent sure.

MR. HARRIS: You've had the opportunity to see some of the MPAs up there that we're looking at. In your experience, what do you think of these MPAs that we're talking about enforcing?

DR. HEYMAN: I'm not an enforcement guy. I think that effectiveness – well, in some regards it is a very different system, deeper water, much larger geography, more people involved spread out over a larger area. I think that the idea of protecting areas where fish spawn makes a lot of sense.

Yes, again my vision, I continue to work in Mexico. I've been working with people down in Brazil. I want to see multispecies spawning aggregations at elbows protected from the Orinoco River all the way up through the Carolinas. I think as a result we may see – you know, if we have all of those oases/volcanoes protected; I think we may see just more snappers and groupers throughout that area than we know what to do with.

MR. HARRIS: I understand those oases or volcanoes, however you explained it, but I'm talking like some of the 100 square mile areas that we're talking about; does that fit into that scheme?

DR. HEYMAN: It's a pretty general question. The size that these things should be is difficult to say. There has been some really nice work done by Rick Nemeth in the Virgin Islands where he shows what the home range of the species is, what the spawning area is and what the – sorry, the courtship and behavioral spawning areas are and what the actual spawning areas are.

I think that MPAs directly targeting spawning sites could be smaller than more generalized MPAs. Again, I'm not the enforcement guy; I'm not the map guy; but from an ecological

standpoint, you don't want to make it so small that they get there and they get hammered just as soon as they leave.

Because they are obviously right there and if you're fishing a line like people like to do – you know, you've got to make it big enough so that they've got something to eat when they're there and that they don't get hammered. The other thing is that they do move around slightly, depending on currents. We've seen them move a mile or two away from the tip of those promontories when currents are in different configurations. There is a waffle-y answer for you.

MR. CONKLIN: Chris Conklin. In terms of square miles of the ones you put in place, the minister or whatever of Belize put in place; how big were those particular spots; can you tell us?

DR. HEYMAN: Yes; I've got to get back to you. I knew that people were going to ask me and I forgot to check it out. I'll look it up and get back to you.

MR. PHIL CONKLIN: Then taking this into consideration; these MPAs that we've got; would you think they are entirely too large and need to be pinpointed; like how many square miles? There is no need to close the Georgetown Hole 27 square miles when it is only a half a square mile you need to close.

DR. HEYMAN: Mr. Chairman, will answer this question for me.

MR. JOHNSON: I think he just answered the same exact question. He is not going to give us the answer to that one.

DR. HEYMAN: I'll add a little bit more and that is I'm using information based from somewhere else to test a hypothesis. I think we've got some work to do to find out how much area these things need. I think we need to be conservative; but at the same time we need to be practical.

MR. PHIL CONKLIN: You had a chart up there before; it was towards the end of your presentation where the spawning months occurred. Based on places and things I've done in my lifetime, black sea bass are right, gag grouper are right, amberjacks are right, red porgy is right. You had one there on mutton snapper. There is no mutton snapper on there?

Well, we were talking about mutton snappers, and the spawning is in May and June. I've fished spawning aggregations of Nassau in the Bahamas. I've fished spawning aggregations of big mutton snappers in the Bahamas, in the Barrier Islands. With the other fish that are there, they are pretty much in line with the months. You had the Xs there later in the month and all this. I noticed there on black grouper, that those fish usually bite better when the moon is coming up, from being a dark moon up to the full moon, and then right after the moon. It is amazing how everything falls right in line.

DR. HEYMAN: Peter Gladden said the same thing. I showed him all this data from one site in Belize, and he goes, man, you could be describing Riley's Hump.

MR. PHIL CONKLIN: In the world, or just in the southeast; it is amazing what you see and how much people don't talk about what they see.

MR. JOHNSON: Okay, Michael Burton. Will, will be glad to show anybody that video I'm sure after the meeting if you want to see it. It is pretty neat.

MR. BURTON: Okay, my name is Mike Burton; I'm from NOAA's Beaufort Laboratory. This is basically going to be a talk with a lot of little short video clips about our work trying to document the recovery of the mutton snapper historical spawning aggregation at Riley's Hump. Bear with me if some of the video clips go a little bit too long for your taste, just let me know.

I would like to acknowledge – I'm the only name up there, but I would like to acknowledge some of my other colleagues that worked me for years on this project; Ken Brennan, who was there from the beginning of the inception of this project; Roldan Munoz, a cast of dozens of volunteer divers.

It is not hard to get volunteers when you say do you want to go diving in the Tortugas for a week and everybody crawls out of the woodwork. I think it is probably worthwhile to give you a little bit of my history in regards to mutton snapper and Riley's Hump research. The very first time I went down there was in 1995 with Don DeMaria when I contracted him to take me down there to obtain specimens for an age/growth study that I was funded for.

We took trips out there during the summer, May and June, during what we then perceived as the spawning months; and had quite a good time there. It was a unique place. I didn't go back again until 1999. There was a Center for Marine Conservation sponsored trip. Jack Sobel I think was an attorney that sort of headed up that organization. I believe that organization morphed into the Ocean Conservancy eventually; so that was diving with a bunch of attorneys and counting fish.

In 2000 was really the first NOAA foray out to Riley's Hump. We went on kind of a fact-finding mission on the NOAA Ship Ferrel; NERC was involved out of Wilmington; Tom Potts and Glen Taylor and some of those guys; just kind of an exploratory trip to see if we could find anything and we really didn't.

The next year was sort of the inception – well, actually that wasn't the first funded year. In 2001 we went again on a NOAA trip, I believe again on the Ferrel – and I'm not even sure who paid for that anymore. There were folks from the Beaufort Lab; John Hare was involved and some other folks.

But that is the year that we selected the first set of stations that we were going to sample by exploratory charting and diving and whatnot. After that, in 2002 the NOAA Coral Reef Conservation Program came into being; and I was able to get funds. For the first two years we went twice a month, May through July. We got beat to death in May. There was just too much current in May; so in 2004 we switched to June and July trips. It says full moon there, but we still went twice a month through 2006.

Then in 2007, for uncontrollable reasons, we quit using the commercial fishing boat I had been chartering and started to use a live-aboard dive boat, the Spree, which was quite a bit more expensive; but we were able to carry more divers and condense our work down to one week long trip, so that is what we did from then on out.

In 2009 the coral program was still funding it, but they asked that we switch to biennial monitoring, every other year; so we did that. However, I was able to get some funds on a different project for 2010 through 2012 to do some grouper acoustics work. I'll talk a little bit more about that.

We're still continuing the biennial monitoring now, but it has kind of morphed into that piggybacked on a lionfish study as well as an exploratory cubera aggregation study. I've been going out there the better part of a couple of decades. The Tortugas South Ecological Reserve first came into being in July 2001.

We were actually on our 2001 cruise on the day that it became effective, so 2000 and 2001 were our essential "before years" if you would. It came into being as a result of a lot of hard work by what was called the Tortugas 2000 Working Group. I don't know a lot about what they went through, but I heard it got rather contentious at times.

It was a group made up of fishermen, of environmental types, of managers, I guess. They put together some protected areas, the north and the south reserve. The North Reserve was up by Fort Jefferson; and its emphasis primarily was more on protecting the critical habitat, the high profile habitat like Sherwood Forrest and whatnot up there.

The South Reserve was strictly and probably – I don't know this for a fact, but I suspect that Peter Gladden had a lot to do with getting that one on the agenda because of the overexploited mutton snapper aggregation out there. The rationale for the South Reserve I think was primarily to protect overexploited fish stocks.

This is not very big, but you will see the map of Florida. About the midpoint of the mileage bar down there is 70. Up above that is Key West; so the South Reserve is about 70 miles west of Key West. That blue box there is the South Reserve. It is 4 miles wide by 15 miles deep; and Riley's Hump sits up in the northeast corner of it. It is about a 2-by-2 mile piece of land.

It is a small part of the entire reserve. I think they extended that box beyond just the hump itself. The feature where the ocean floor comes up to within about 90 feet of the surface to protect what might be deepwater habitat out beyond that; although I don't have a lot of firsthand knowledge of that. I wasn't involved in the working group.

Just quickly, this is how in 2001 we kind of figured out where our first ten stations were. We just divided up a 2 mile by 2 mile grid and went over it with the chart finder on the boat; found depths that looked divable and looked like good habitat and marked them, and then later went back and dove. This is how we selected our first ten stations, which is what we came out of in 2001. I'll not spend a lot of time on that.

This is the quintessential bathymetric image of Riley's Hump. This comes out of a marine geology paper by Mallinson et al. There were quite a few people involved in that study. Dave Mallinson from ECU, Dave Gnarr from USF, Doug Weaver who I think is now at A&M Corpus Christie.

But, anyway, the white dots are what are now my 16 sampling stations that I have on this. These two right down here are 12 and 12A basically; they are right on top of each other. This is the

mutton snapper aggregation site. Over here on the eastern edge is Station 15; that is the one that we call the grouper ledge.

This one here in the middle; Station 6 is the one that Pete Gladding named Middle of the Hump South End. These are the high-profile stations when it comes to fish for some reason. I gather it has to do with the edge effect or whatever, but this is where we see most of the big fish and the aggregations and things like that.

Not to say that we don't see some interesting stuff at some of these other stations, but some of them are not that interesting; I'll be up front about that. Some of them are just chalk bath stations; but we go back and we sample them year after year. In 2002, when I started to get coral reef funding, and there was no NOAA ship on my horizon to work off of, I think Don put me in touch with Pete Gladding.

I talked to him and I started contracting with him. I worked with him for four years, going out on his boat the Alexis M. This project owes a lot to Pete. He was a good mentor; he was a good boat handler. He knew a whole lot about the area. Anyway, I enjoyed working with him in the short time that I got to know him.

The methods were pretty simple; we were just fish counters. We jumped in the water on station, we found the station. We did a replicate randomly oriented, randomly directed 30 meter transects; swam out a tape 30 meters and counted all the predators as we went that we could see. That was our standard transects methodology.

In 2006 we started to get some of the reef divers; the Reef Environmental Education Foundation out of Key Largo. A couple of their divers started going with us. They counted everything. They just did kind of a roving survey and counted and identified everything. They were very good at all the cryptic species.

They would pick up rocks and look under them and stuff like that. That was a good biodiversity survey having those guys on board. Then in 2007, once I started taking the Spree, I got three of the Miami -- Jim Bohnsack's employees the Miami Point Count RVC guys to go, and they are very good. They do a cylindrical point count, stationary point count.

They count everything as well, so it is very nice. We did start doing some – once we had the Spree and the platform for it, we started doing some split-beam sonar transects at night. Another fellow at the lab, Chris Taylor, who was interested in fish habitat associations, so after dive ops were finished, after it got dark we would start to pull the split-beam sonar for five or six hours at night. This is what we did.

Riley's is not very glamorous habitat, for the most part. Most of it looks like that. There is the occasional kind of big coral head. That one up here, you might see some ledge-y habitat back there; but for the most part it is just kind of flat and rubble-y. Those stations on the edge that I pointed out earlier, you do have a little better habitat; but really it is not the kind of habitat that you would think you would see a lot of big fish at, or at least what I thought.

This is maybe some of the more marked habitat or remarkable habitat there. This is a panoramic view of my Station 12, 12A; the mutton aggregation site, also known as the sargassum

triggerfish site, because that is where we see sargassum triggerfish. It has got a little more structure to it, but still it is all very low.

This is the grouper ledge that is over on the eastern spine, if you remember me showing you that. It is that long spine you saw running down on the multibeam map; that's it. Then off to the edges is sand. It's just a long spine of rocky habitat. It is maybe a couple of meters at most in height; but it seems to hold groupers. Here is another look at the grouper ledge, Station 15 with a school of port fish on it.

Beginning in 2002, like I said, we started looking seriously with Pete for mutton snapper. Usually when we'd see them, this is what we'd see, a solitary mutton snapper. They are by nature a wary fish; and you generally don't see a lot of them unless they get together for some reason. That is what we were looking for; we were looking for those fish that got together.

We didn't see that until the next year, 2003. This was our first run-in with any large numbers of mutton snapper. We didn't see spawning, but we did see – I mean we were psyched – when Ian Workman who used to live down in the Keys, he was a NOAA dive chief at the Pascagoula Lab for years, shot this video; and he came up with it and we were psyched, because, yes, we had found what we considered fairly large numbers of mutton; that being more than two.

Here is just another video that he shot on that same dive or whatever; a little amorous behavior between nurse sharks. When we saw this it was like, well, were the mutton still swimming around? Yes. Well, why weren't you filming them? But, anyway, that was pretty cool. After that 2003, we didn't see any large or relatively large numbers of mutton for quite a few more years. We kept doing our transects; w saw lots of other stuff.

This is the mutton aggregation site, Station 12. We almost always saw a Jewfish or two over there. You could approach them until you got too close, and then they would swim away. This was a really neat site. This is just a segment of stuff that we've seen. Here is another grouper; I think it is a yellowfin maybe, a yellowfin or a black. It is closing in on them.

He didn't have quite the distance threshold that the Goliath grouper had. He swims away. This was I think an extension of that last video. Brian Deegan at our lab was filming this; and then something caught his eye and he looked over to this rock, and there were like three black grouper hanging out over there. In talking to the NOAA divers from the Miami lab that used to go out with us to do the point counts, three blacks on a single dive was kind of unheard of in the Upper Keys track, where they did a lot of their RVC counts and things like that.

We saw lots of groupers at both the mutton aggregation site and the grouper ledge. We saw quite a few dog snapper here and there, big black grouper; lots of other cool things, spadefish, things that you could call schooling, although I'm not implying there is any reproductive intent here.

This was shot in 2009 actually. There was a paper – I find this kind of stuff interesting, and there are some other jack stuff coming up; but I think a colleague of Will's; Rachel Graham did a paper on jack aggregations at Gladden Spit, perhaps or whatever. It seems like a lot of these fish use the same areas as he said.

This was cool; this was on the ascent I believe; they lifted up off the bottom and were surrounded. Two of our divers, Roldan Munoz and Dave Grinda; the reef divers were surrounded by rainbow runners. This was taken by Mike Judge from Miami, and he named this slide; "Count Them All, Boy"s.

This was not uncommon to be surrounded by something on your way up. Okay, this was some amorous behavior by a couple of horse-eye jacks. We saw this on more than one occasion actually. We just happened to get some pictures of it in 2009, but interesting. I don't remember if horse-eye jacks were one of those species from Belize.

DR. HEYMAN: Oh, yes.

MR. BURTON: Were they? Yes; and we've seen large schools of horse-eye jacks out there as well; blue runners, crevalle jacks, bar jacks. This was when we ran into the mutton snapper again. This was the June 2009 cruise. This was actually John Hunt's cruise, the FWC cruise that I was fortunate enough to get to go on. Maybe this was Day 2 or something.

We didn't see anything on the first day; and then when we got in the water the morning of the second day, I think – It's not thick, but there are a lot of muttons there. As I said, they usually only get together; and the other thing I noticed about muttons is their behavior. I said earlier they're very solitary and wary.

But when they don't care that you're there, then there is a greater ulterior motive. You can figure they are probably there for reproductive purposes. Anyway, I really like this little video segment. We encountered them in June 2009. You should be down there when they're doing this; it is really cool. All right, I'll see if it will move on for me. It won't.

Okay, later that afternoon, we were doing drift dives. Usually we do transects in the morning and then along about 3:30 start doing drift dives and look for aggregations. I believe on this dive was C.P., a photographer who worked for boat, who I think FWC had contracted, and Jack Javich. This was up about 30, 40 feet in the water column.

AP MEMBER: What time of day?

MR. BURTON: This was in the afternoon.

AP MEMBER: 4:00.

MR. BURTON: After 4:00, yes. That is the penultimate video. It is not allowing me to play this file. Well, I have two or three other videos, but it won't allow me to play them there. Let me see if I can find it another way. Sorry, I don't know why it wouldn't play in my PowerPoint. This is a low-light camera that we put down in these housings and put them out about 4:00 in the afternoon and leave them overnight.

It was part of our grouper acoustics project and trying to get video documentation. This was about 6:40. This actually comes from the next month's cruise, from July, but you see the muttons all get together off the bottom there and then shoot up; then the big giant upward rush, and then they dissipate.

They just kind of hang together for a little while before they all break off. This was another event, again from that July cruise. It is not a spawning event, but it is kind of a pre-spawning chase. A bunch of them come swimming by. This guy is too slow, so he turns around and goes away.

This is just a photo after the June cruise when we kind of knew what to look for; when we would go on our drift dives about 4:00 in the afternoon, from then until as long as Frank would let us dive, until it got too dark; we would just scan the bottom and look for these little piles of mutton. They may not be up in the water column; but if there were a pile of them together, then you had a good chance that was going to form into a spawning aggregation.

This is I think the penultimate picture of muttons on Riley's Hump. This was taken by Don DeMaria; and this was taken on the last morning of that June cruise. On the last mornings of the Spree trips, we always did some sort of sport dive, if you would, if there is such a thing on a NOAA trip where we would go – people got to choose where they wanted to dive, and we didn't do any transects or anything like that. We were just doing a long drift dive or something for fun.

We dove on this dive and there were just muttons everywhere. I think we swam like this for 30 minutes; and the muttons were this thick the entire way. It was pretty awesome. With increased numbers of fish come larger predators. Again I refer back to Will; I believe there was a publication recently about the increase in predators such as sharks on Gladden Spit and the association with the bounce back, if you would, of fish there.

These are some sharks that we've seen. Lemon sharks are not uncommon down there in the later years. We see many more sharks now than we used to in the early years of the project. Here is another attempt at a spawning event that you will see is broken up by some visitors here in a second. They're trying to get together and then a couple of lemons come swimming in and the party breaks up.

That video was shot by Mike Judge; and that was from the July 2009 cruise. Now they try to get back together but here comes another shark. They kind of look like they're circling. I think I'm going to have to go outside again. These chase cam videos aren't playing; I apologize for that. This was the chase cam video from July 2009.

This was about 6:40 in the evening, so hopefully we would have all been out of the water; but you'll see it come in from the left there. It's a great white. It could be a mako, but we think it is a great white; but it is definitely in that family. The average size of muttons around there was like 700 millimeters, so he's a pretty big fish. With the increase in sharks comes danger to divers, of course. You have to be cognizant of that as my friend Ken Brennan found out on one dive.

We're supposed to laugh because that is like a little foot and a half plastic shark that Mike Judge is holding out; and they are getting their camera. It looks realistic anyway; doesn't it? It got laughs on the boat. This is another one of those things. This is a school of permits that was captured on the chase cam.

Snappers aren't the only thing that we see aggregations of; just another type of jack that comes through there. This was again from the July cruise; and they just keep coming. This chase cam

technology is created well. We're using it because my friend Jim Locascio, who is on the grouper acoustics project with me, came up with this.

Future work on Riley's Hump if I am allowed to continue working there; we currently have one more year of the biennial work. We'll go back in 2015. The crew went this summer. This was the first year I didn't go since the beginning, because I had a family function; but we'll go back in 2015, and we'll finish up the three-year lionfish study.

What we're trying to do there is not only document the effects that the lionfish are having on the native like cryptic species community; because they are voracious predators on damsel fish and everything else; and they are certainly there. They didn't show up there until April 2010. That was when we saw our first lionfish; but they are there in spades now.

But not only to see what effects they have on the native fish community, but because the level of predators is so much greater at Riley's Hump for whatever reason, whether you want to attribute it to the protection that the site is afforded or what – I mean, there is a lot more larger groupers and snappers out there than you see in the rest of the Florida Keys track.

Perhaps this enhanced level of predators can offer some kind of control to lionfish populations, so we'll be documenting the abundance of lionfish over the years. We got the first year of data collection on this done in 2011. They went this year and we'll finish up in 2015. There is the cubera snapper aggregation that actually I think probably some of John's people first discovered, John and a group from Puerto Rico.

It is off the edge of Riley's Hump, but I believe it is still within the reserve; but we will in 2015 do a second year of just trying to characterize that aggregation and see what is the function of this; are they a spawning aggregation? Then something that probably won't happen, but I would like to see it, I would like to see Riley's become an Ocean Acidification Monitoring Site, because it is fairly remote. Any results you get that happen there are probably real.

They are not attributable to anything else; but it is that remoteness that makes it a neat place to do this, but it also makes it a problem, because you have to change the sensors out about every three to four months. It is expensive to get out there. It is 70 miles from Key West. I don't know if that will happen.

They have a suite of Ocean Acidification Sampling Sites around that are a lot closer to shore that they are currently using. There is the original lionfish, 15 April 2010. That was on the grouper ledge, Station 15. Since then we see dozens of them on a dive. This is a look at that cubera aggregation site. In 2012 we went back out to retrieve our deep acoustic recorder. We shoved it off the boat in 2011 in 200 feet of water never knowing if we would get it back. We had a mid-water buoy coming up to about 100 feet, and that was our plan to come back the next year and try to find that buoy and recover it.

Fortunately in 2012 we had two tech divers. This is Melanie Lawson from the boat and her friend Jean Anne, and they are both closed-circuit rebreather divers. They went down and they found it for us. This is a look at what some of that bottom looks like at 200 feet off the western edge of Riley's Hump.

Neat bottom; it makes me wish I were a technical diver sometimes, but that is too much work to go through. You saw the lionfish, the groupers. Here is the aggregation. This is our one good look at the cubera aggregation that we've seen so far. From the left you're going to see sort of an odd-colored fish come in right there that we think is one of the color morphs maybe that Heyman et al talked about, but we're not sure. Anyway, that was the look at it.

This is just the recovery attempt of the equipment. With remote MPAs come problems, access, but certainly enforcement can be a problem. This was in my 2008 cruise. We came up from a dive and Captain Frank said, "Mike, there are some people over on the grouper ledge." I said, "Really, what are they doing?" "Fishing.'

So we motored over there; and there it is, a small boat. Well, it wasn't that small. I mean that's a pretty good-sized boat. It had 6 anglers, 12 rods out. We kind of told them they were fishing in a reserve. They didn't answer us; they didn't say a word to us. We told them again. We were just trying to be nice.

Of course, they saw this big 100-foot dive boat bearing down on them and stuff. They stayed there; and we went back to our work, and on the way back to the next station Frank said he heard them on the radio. They were calling the Park Service at Fort Jefferson, telling them that they were being harassed by a dive boat.

Frank tried; he tried to get the enforcement authorities. At that time the Peter Gladding was the enforcement boat that I think was run by FWC. It was a NOAA boat run by FWC, and they were off doing something else. They did come out that night. They came out about ten o'clock, and we were in the middle of our split- beam sonar tows.

We told them what we had seen, but there wasn't anything they could do about it at that time. That is what I was going to mention earlier when I showed you the map of where Riley's was. There is really no reason you would be there by accident. It is 70 miles from Key West. It is in the middle of nowhere. My feeling is they had some inherent knowledge about where they were.

Riley's was a pretty well-known fishing spot at one time. Did they know it was a closed area? I'm not going to speculate on that; apparently not. Enforcement is a problem. I will say, though, over the ten years or so that I've been going out there, I've only seen two – our time is limited there, but I've only seen two infractions like this. This was one of them and the other was one of the Fort Myers headboats fishing inside the reserve back in about 2004.

By and large I think, it is just too far to go. I always hate to let data get in the way of a good talk, but I'm going to show you just a series of data slides real fast. This is a look at the headboat landings for mutton snapper. This is all Florida combined. You'll see that starting with the beginning of the time series in '81 down to about here, landings decreased.

Mutton snapper landings by headboats in Florida decreased about 80 percent over that time. I think it is pretty apparent that they were being exploited successfully at least by the headboat fishery or whatever. Long about here, 2000 is when the reserve went into effect. We have a ways to go yet, but you're starting to see an upward tick in the trend or whatever.

Certainly, we've heard from both people on the docks as well as Jim Bohnsack's fish survey crowd doing their underwater RVCs along the Florida reef track, that they're seeing more mutton snapper. Anecdotally at least people are telling us that for some reason, whatever it is, mutton snapper seem to be more abundant than they were.

Is this attributable to the reserve? I'm not here to tell you it is or not; but you make your own assumptions about that; but that is what the data shows. Just a quick series of slides on mean numbers of mutton snapper counted per transect; these transect data are funny. There are no real apparent trends in this.

This peak up here was the 2003 sighting that I showed you the first video of where we were just fortunate to be doing a transect when we discovered that and got like 200 and something fish on the first transect. That is not always the case. We saw a lot of fish in 2009, too, but it is just that we saw them outside of the transect count.

Even though there were tons of fish there, they didn't show up in the data. When you have your data slide and it doesn't show this continual upward trend; it doesn't mean that it's not working. It just means that is the vagaries of data or whatever. This was mutton snapper from two of the most abundant mutton snapper stations, the Mutton Site Station 12, and Middle of the Hump Station 6.

I can't really tell you that there are any trends there one way or the other. This is the mean number of black grouper per transect on the two most abundant black grouper stations. Again, I think probably what you could just do is draw a line down the middle and say it is pretty static. It is not declining, it is not increasing.

Maybe you could say there is a little downward trend here, but then does it go back up? I think the key to take away from this slide is I think it is pretty cool that you're even seeing an average of from two to three black grouper per transect swim, because in some places you won't even see that many.

Scamp; again not a whole lot here, the data is kind of spotty. There was this one huge number of scamp seen on this one transect swim. This is the Grouper Ledge, Station 15. I can't say that I remember that particular number. That is a lot of fish; so data; take it as it is. This is my standard disclaimer from any talk that I give and I attach it to all my e-mails.

If there is something about this talk you didn't like, please refer to my universal apology. I would like to hang around for questions if you have any. For some reason those videos aren't playing.

This was another chase cam video that was just nice that it recorded all these mutton swimming by at the end of the day. This is still fairly early in the day, because there is a fair amount of light there; figure probably 5:30 or something like that. Anyway, I will be glad to answer any questions if you have them. Thank you.

MR. JOHNSON: Thank you, Mike. Do we have any questions for Mike? Ben.

MR. HARTIG: Yes Mike, you mentioned a little bit about dog snappers and cubera; have you guys documented spawning behavior in those as well?

MR. BURTON: Usually we'll see a scattering of dog snapper at different stations, the Grouper Ledge, but never more than one or two at a time. Cuberas, the same thing on Riley's proper; it just that video I showed you of the mass of cubera off the deep station was the only time we saw any numbers like that. No, we haven't documented spawning, but we assume they are there for a reason.

MR. DeMARIA: If I could just add something to it; in the beginning years when we first started going out there, there were very few muttons. Do you remember those years; you would see a few here and there, but nothing like the big aggregations towards the end. It took a while after it was closed to build up.

I think if the South Atlantic Council – well, the Gulf Council and the Sanctuary would have waited until there was actual scientific proof that they were spawning there, we probably never would have had an MPA and never would have seen them re-aggregate. It takes many years after they have been beat down so low to form these aggregations again.

MR. BURTON: Yes, I totally agree with you. I remember back in '95 how hard you guys worked just to put 20 fish on the boat after four days of diving, three of you spearfishing, because they were just so scattered and there weren't many there. You saw that first video from 2003; that was maybe a couple hundred fish. We were excited by that. We're seeing many more of them now and more often. They have definitely come back.

MR. PHIL CONKLIN: This is for Don. How many years since you started this in this rebuilding to see this many fish; just to get an idea to everybody that if we find places where there is a spawning aggregation around, especially in the Carolinas, how long would it take after it has been beat down do you think to rebuild?

MR. DeMARIA: I really don't know. All I can say is with Riley's, it was at least, how many years would you think, ten years or so before they really regrouped again? It was closed around 2000.

MR. BURTON: They closed in 2001 and we didn't see the spawning until 2009. We saw small groups and things; but, yes, close to ten.

MR. DeMARIA: I don't know, I suspect it is different with different areas; but the main thing is it takes a little while. It is not going to happen overnight for these fish to come back. But there is something in these fish, even when they're beat down to practically nothing like the Goliaths were off West Palm Beach; that took many years, 15 years, 18 years or so before they started coming back. Now some of the sites there that had none, like the Hole in the Wall and the edge, you could see 100 or so. There is something ingrained in these fish for these specific sites, like Gladdens Spit and all these others where if there are some of them left at all, they are going to come back.

MR. SMITH: Phil, you were talking about the Barrier Islands and you said you saw a mutton doing that there, you fished them; how long did you fish them and did that go away?

MR. PHIL CONKLIN: We fished them one day, one afternoon. It was happening. I mean, it was there. They were all 8 to 14, 15 pound fish. It was the wildest thing I've ever seen with mutton snapper. We never knew they were there. We just happened to be riding down the reef and found this little hole in the reef. We went in there and anchored up, and bam!

MR. JOHNSON: Okay, let's take a quick 10-minute break.

MR. JOHNSON: Let's gather around. Okay, John, it is all yours.

MR. HUNT: Thank you, sir. Good afternoon, everyone; my name is John Hunt. For those of you that don't know me, I work for the Florida Fish and Wildlife Conservation Commission and I run our research lab in the Florida Keys. I moved to Marathon, Florida, just shortly after Richard Stiglitz; just shortly after.

I moved to Marathon; I arrived January 1, 1981. On January 2 I went to look for my office. I was driving around and I saw a sign that said DNR and I looked over there. I was this young kid coming from the University of North Carolina, and the sign said DNR; and a rock had been thrown through the window over the holiday weekend. I almost turned around and drove back to Morehead City, North Carolina, to ask my major professor if I could get a PhD.

It turned out that was the law enforcement – that was the Marine Patrol Office. Our office wasn't there so I stayed. Obviously, it is 34 and one half years or so and I'm still in Marathon, Florida, working for now the Fish and Wildlife Commission. I'm going to be following up on what Mike did. I will clip off the videos when they're same as his.

I'm going to be talking about Riley's Hump and some of the mechanisms why Riley's Hump has recovered. Then I'll also be talking about some of the aggregation sites in the Keys from some of our research that my folks have been doing in partnership with other folks from the Beaufort Lab, Todd Kellison in particular.

The primary person working on our project is a young woman named Danielle Morley. Whenever you talk about spawning aggregations, it is pretty easy to start telling ribald jokes. She finally the other day looked at me and she said, "Please, just call it a brief romance." I think that is a good way to think about this is Danny's way of talking about spawning aggregations.

This takes kind of what Mike did in his talk and puts it into one slide, and I think it answers some of your questions. This is some of Mike's work; it is our work up to 2009. Basically there is your decade of recovery for mutton snapper. If you do a management action somewhere, you're going to have to be patient at least a decade before you pass too much judgment as to whether there is success or not.

That success happened in the same video that he has already showed; the video that we observed quite by chance at four o'clock in the afternoon of just that brief romance and the first time we all saw the brief romance of mutton snapper actually spawning. You saw this video; I'm going to go ahead and click off of it. What was it in the bigger picture that helped the recovery of the mutton snapper population?

Mike talked about the Tortugas 2000 Process. Ultimately the combined efforts ended up with three no-take marine reserves – you are calling them MPAs here – the Tortugas North; the Tortugas South, which includes Riley's, which, of course, Riley's Hump is right there; and a no-take area inside Dry Tortugas National Park called the Research Natural Area, with an area around the fort in here that people were allowed to fish.

Once these were instituted, change started to happen. In the year 2000, on the very extensive underwater visual survey program that is conducted in partnership with the NOAA Lab in Miami, University of Miami, ourselves, the National Parks Service; if you take a look at this with mutton snapper before these reserves were put into place; and wherever you see a white dot, at that sample we saw no mutton snapper.

Wherever you see a colored dot, we saw one or more mutton snapper; and the larger big dot has more than one. Here is 2000; here is 2008. The difference is very obvious. Those no-take marine reserves out there changed the mutton snapper population, and clearly – and I'll show you in just a second – provided part of the mechanism that allowed that aggregation to recover.

The Fish and Wildlife Commission staff set about kind of the other side of all this work where we went out to the Tortugas and acoustically tagged with the Vemco tags mutton snapper and other fish; but today I am going to focus on the mutton snapper. We took these tags and caught the fish, sometimes hook and line, sometimes we did it with a fish trap at the bottom, conducted surgeries on these fish.

Here you can see two of my scientists at Riley's Hump. If you look at the tail of that fish, you will see it is upside down. That is a mutton snapper that we caught at Riley's Hump on the bottom. We did the surgery at 100 feet on the bottom, placed one of those tags inside the fish, and then released it.

Ultimately, we had a whole suite of these listening posts spread around the Tortugas Region that would then detect these fish. That is the distribution of the listening posts spread around the whole Tortugas region. I'm going to now talk to you about the results or some of the results at least from this study.

We anticipate the publication – by the way, Mike, it is in our final review internally. Mike is one of the authors. It should be submitted to a journal here very shortly. We tagged 55 mutton snapper and did the surgeries; put those acoustic tags inside them; and 21 of those fish made multiple migratory trips to Riley's Hump. The others just disappeared. Whenever you start doing tagging, there is a lot of fish that don't give you a lot of information.

But that is a very marked piece of information; that 21 of those fish made multiple migratory trips to Riley's Hump; and 12 of those fish were residents inside that shallow water of Dry Tortugas National Park. What does that mean, then? What I am going to do here is show you one of those 21 fish. This fish we tagged at that red dot right here at the beginning of May.

We're going to watch the fish go through time. This bar will go across; and you will see around the full moon the fish shows up at Riley's Hump. Every time it is detected at a receiver; so when it goes near a receiver, that means that listening post, the underwater receiver was actually detecting that fish.

This fish went from those locations out to Riley's Hump three times during that summer. Now we're just going to watch her go. She went out; she's at the full moon in May; hung there for a week or so; swam back really quickly; went back into that shallow no-take area; hung out; starting just before the full moon she went back out again to the same area.

AP MEMBER: What is the distance?

MR. HURT: That distance is about ten miles – back to the same location of the initial tagging. Again in July there she goes. Each one of those blue dots is a listening post; and so when it goes by, it detects them. Very clearly what you have here is a spawning migration corridor. We heard Will talk about how much of a buffer – you know, Will and Rob had how much of a buffer do you need and a feeding place and all these other kinds of things.

What we learned in the Tortugas is that part of that decade of recovery also included the protection from those shallow protected areas where no fishing occurred that allowed mutton snappers to recover there as well. It also allowed us to discover that migratory behavior and the fact that the same mutton snapper goes out and back multiple times every spawning season.

This is a slide that shows the detection frequency of mutton snapper at Riley's Hump for four years. By detection frequency, it means every time one of those acoustic tags pings a receiver. You'll see that year after year after year it is happening at the same time; some years more than other years. Ultimately, some years starting as early as April, some years, 2010, for whatever reasons, not so much until June, but happening month after month after month.

You'll notice that during the non-full moon times, there are many fewer detections. That clearly is another is another way of looking at this information is that these fish are routinely going back and forth, back and forth, back and forth. That is an important sort of take-home message is that it took more than – in this case it probably happened more quickly because of the additional protection of those shallow residential areas.

We heard Will talk about and you heard Mike talk about when you have a special place, Gladden Spit, Riley's Hump, Western Dry Rocks; when you have a special place, it is a special place, and it is a special place not just for one species. During other times of year, we've done some other work and you obviously see we're working with Mike in different ways; but that mutton snapper aggregation site on Riley's Hump is kind of in this general area.

We also did some ROV tracks and some rebreather diving out in this area. That is where we found both what we think is a black and probably a scamp grouper aggregation area at that location. We saw black groupers doing some of the color changes that they do when they spawn, and they are in about 150 feet of water, and the cubera location is in about 200 feet of water.

Now I just have a few videos of these. It did the same thing there, so we'll just go on. They are all doing it on your system. The only one that I am going to try to show here is the cubera, which is – actually I'll show the mutton one as well. The cubera is an ROV at 200 feet. There they are milling about at 200 feet.

AP MEMBER: Was this shot by the Puerto Rico Crowd?

MR. HUNT: This was shot by the Puerto Rico crowd, yes, our partners at University of Puerto Rico. I wanted to show you the mutton snapper; because with the muttons, you will also see the triggerfish at the same location at the same time. Those triggerfish were nesting on the bottom. That is why I wanted you to see this particular video.

The take-home message here is that a special place is a special place. Just like on land, we go to Yellowstone National Park; that is a special place. There are a lot of special places in Florida. Just in the ocean, there are a lot of special places, and we all talk about it from our own different perspective; but Riley's Hump is one of those oases and volcanoes that we heard earlier.

What does it do? Let's come back to the timing of spawning. In general, the groupers tend to be more wintertime and in general the snappers tend to be more summertime. It is just a reminder, because from Riley's Hump there has been a suite of models run using oceanographic models and model larvae.

There is the starting point; this is larval transport from Riley's Hump during February. You will see those larvae get caught up in different eddies. Many of them end up in the Florida Keys, all along the south Florida coast, spread up along the Florida coast, and some get caught in different eddies all the way up to the Carolinas.

You have scamp there, you have blacks there, you have muttons there, you have all those suite of species that Mike talked about; and this one location is providing larvae to a huge, huge region. If you run the same model during July, the snapper time, you will see that during July there is other currents in that region; and so you get recruitment of larvae up into the Southwest Florida Shelf and also along the east coast and the Florida Keys.

Clearly, Riley's Hump is a major management success story. It started without full information; and we need to be real clear on that. Fishermen knew that it was an aggregation site; just like I'm hearing you folks talk at different times where you know that there are probably aggregation sites. You don't always have the full confirmation that actual spawning is occurring.

In Riley's Hump a group of stakeholders were willing to take that risk, create those reserves, and created a major success that I would say is equivalent or very similar to what Will talks about in Belize, starting with stakeholders such as yourselves and building a major success in terms of spawning aggregation management and really aiding in the populations of all these species that live there.

We've been doing more work in the Keys Proper, if you will. One of my employees here, Paul Barbera; a commercial fisherman that we have contracted at different times from Key West, Rick Laflair; and we also, to the extent we can, try to contract folks from the fishing industry to work with us mainly because they know things that we don't.

Peter Gladding, Roberto Torres and others have informed us of a suite of locations that either were historic spawning aggregation sites or in some cases still active. We have been trying with Todd Kellison and others to work at as many of them as we possibly can. This is the Upper Keys; more information from Roberto primarily.

At Whistle Buoy here there is an historic cubera snapper that they say was fished out. We go there during the right times, there we go, and we see elevated densities of cubera snappers, but it is still a heavily fished area so we're not seeing a full aggregation. The same with offshore on Carysfort, which I'll show a little more information on shortly, elevated densities of large black grouper.

It probably was and could be in the future, if managed correctly, an active black grouper aggregation, and the same for Watson Reef. In the Lower Keys, everybody knows about Western Dry Rocks. Western Dry Rocks has that same kind of hook feature to a degree, although in the Keys Proper that hook feature that Will talked about is not quite as strong.

But at Western Dry Rocks we know mutton snapper, we know gray snapper, we know goatfish, mahogany, spadefish, striped grunts. When we dive there, we are routinely seeing large numbers of mutton snappers. It is a major fishing location during the spawning times and clearly one of those special places.

Other locations in the Lower Keys, Mangrove Toppino, I have the video of the thousand snapper that I'll show in a little bit – Eyeglass Bar and Maryland Shoal. These are all historic aggregation sites, where in our work all of them are open to fishing and where in our work we routinely see that these fish are still coming to; just not in the same numbers that occurred in the past from the information that we're told by the old-timers.

Will talked about these geographic features. This is the geography then of Carysfort; and you will see that same steep slope. You can see it over here; and that aggregation site of the black groupers is at the base – in this case, at the base of that deep outlier reef. Relatively similar to what we see at Riley's Hump, the black grouper probable aggregation location that we found to the west of it is in 150, 160 feet of water towards the bottom of that slope.

The gray snapper aggregation site – and this is a fairly typical typography in the Florida Keys where inshore is up here; the reef comes out and you have the shallow reef up here. These water depths are only 10 meters. This is the shallow reef that goes along the Keys, drops off to deeper waters, sometimes around 20 meters or so, sometimes quite a bit more.

Then you get an outlier reef and the aggregations – in this case mutton snapper are on these outlier reefs. This is probably a predictable type of location. At Western Dry Rock you have the same kind of situation. You have a little bit more of a hook feature in the inshore shallow reef. It is a typical reef. On that outlier reef, on the top of it is the gray snapper aggregation site; and the mutton snapper aggregation site tends to be a little bit over the edge.

You can see that typography right here. We're in the beginning stages of doing some of this kind of predictive work going to other places as well. We'll see if this runs inside here; if not, I'll go out. At Mangrove Toppino site – the Toppino family, by the way, is an old Key West family; hence, the name Mangrove Toppino.

We ran over top and we saw the fish in our efforts; just searching. These are gray snappers, in this case, in between the outlier reef and the other reef. This was about two o'clock in the afternoon. A thunderstorm came up, chased us off; we came back, we found them again; a second thunderstorm came up, it was much larger and chased us off.

We got back about seven o'clock that night and the fish were gone. We can't prove that this was a spawning aggregation site, but we suspect it is probably a spawning aggregation of gray snappers. In closing, kind of taking the collective of the day; in Florida those no-take marine reserves have allowed for the recovery of fish spawning aggregations at Riley's Hump.

The larvae produced there supply the recruits to the rest of Florida and the southeast. Finally, we're seeing aggregations throughout the Florida Keys at places that folks have called historic spawning aggregation sites. Although spawning has not been observed at these sites so far, what we've learned today from all three presentations is that if you take an area that is a spawning aggregation site, even if it has been depleted; if you take it and if you build it, they will come.

I think going to the Field of Dreams and taking that movie; and if you build it, they will come is really probably the best thing that I can say to you folks. This kind of spatial management has a huge, huge chance for major successes in terms of recovering spawning aggregations and those larvae supplying juveniles throughout the range of the species. We showed it with our models; Will talked about it in terms of the Nassau groupers; and I think it is one way that we can do management in the ocean to make just a huge difference. This is the end of my talk. With that, thank you very much.

MR. JOHNSON: Thank you, John, we really appreciate that. Do we have any questions for John?

MR. STIGLITZ: Talking about the gray snappers in the Toppino's Place there; those gray snappers spawn on that reef from below the Marquesas all the way to Key Largo. I don't think there is any one spot. There are some places that you can go out there on any rock you want to in 30 foot of water come the end of June or July and catch spawning mangrove snappers. I don't believe that they are in just one spot.

MR. HUNT: No; they are definitely not in one spot, but they are going to certain kinds of features to do spawning; and that one happens to be one where thousands upon thousands go.

MR. STIGLITZ: That's a place where thousands of them go; but every rock, the bottom off of Bay Honda, it is the same way. East of there, there is bottom all the way I mean, you go all the way to Key Largo and the whole length of that reef is mangrove snapper spawning in the months of June and July.

MR. DeMARIA: The Keys, despite all the heavy fishing we have, we don't suffer the closures that you all do up off the Georgia and Carolinas. Yellowtail stays open year round, gray snappers, muttons. We can't prove it, but a lot of us think it has to do with Riley's Hump. We provided a place where these fish can get together and spawn and we're down-current of all that. The purpose, at least in my mind and in my way of thinking, of working up the coast and identifying these spawning places is not just to close things down for the fishermen for no reason at all. It is to provide some type of mechanism by which you all can fish year round and have plenty of fish to fish year round and don't suffer all these closures. I think there is something to be said about the Keys having so much fishing pressure and still not having closures on certain species.

MR. JOHNSON: Will, did you want to say something?

DR. HEYMAN: Yes, if I can. One of the things that we've seen in terms of looking at these patterns of which fish spawn where, when, and this and that is two things. One is coming out of Australia and the Great Barrier Reef; a guy described sites that are primary sites versus secondary sites.

The primary sites were real obvious, real big bends, and then they typically had big aggregations of big fish commonly in the right seasons. Then they had secondary aggregation sites that were not quite as pronounced that sometimes had fish, sometimes had smaller amounts of fish, and sometimes had smaller fish. That is one thing.

I haven't published this; it is more of something that I am just kind of observing. I see kind of a relationship between the size of the fish and the distance that they migrate to spawn and the number of aggregations that exist for those species. Like a bluehead wrasse, they will spawn every day on their patch reef, like on the top end at the bump on the north end, for example. of that little patch reef, every day at three o'clock.

Then gray snappers and red hind, they go to shelf-edge bumps, but they are smaller. Then the bigger and bigger fish are traveling further and going to the more obvious bumps. I haven't proven that or anything, but that is the pattern that I'm seeing evolve as I look at a lot of these sites.

MR. HUNT: Some places are more special than others.

MR. SMITH: This explains a lot; and it is anecdotal, but my office – I'm really lucky, Sebastian Inlet was my office for many years as a charter captain. I noticed about six or seven years ago we started getting a run of mutton snapper usually September/October. I started hearing about it. Before that; 20 years before that, it was rare to catch one inshore.

But now consistently you start hearing, it is like a flounder run; but, oh, yes, the muttons are at the inlet, its September again. They are there and we're catching them. Now this explains it to me. It might not explain it to anybody else in the room, but it explains it to me. I just want you to know, because now it makes sense. It makes sense why and it makes sense to protect these spawning areas. Being married 35 years – and I don't really want to go too deep in this, luckily, but there were times when just like those little gray snapper; it didn't matter where or when. Just remember, you just don't want it to be a brief romance, that's all.

MR. HAYMANS: John, 55 fish tagged; you saw 21 return to Riley's at some point or another, right?

MR. HUNT: Twenty-one made multiple migrations to Riley's.

MR. HAYMANS: The rest of the network that is from the Keys up through the east coast, west coast of Florida on up to North Carolina; any detections on those in that network?

MR. HUNT: No; except we had one of our tagged snappers returned by a fisherman that was fishing in the Rebecca Shoal area, not up on the shoal but offshore, and he didn't even know he had it until he filleted it back at home and found it; but that was the only one that was recovered. We had some that were smaller that just didn't leave the shallow water areas. We had some that

we tagged at Riley's Hump that left Riley's Hump at the right time but disappeared. Maybe they were caught; maybe they were eaten.

MR. HAYMANS: Just following up with that; then you didn't hear of anybody else that has fished there?

MR. HUNT: No, we heard sharks; we heard people sharks. Some of Wes Pratt's sharks moved up into the – what's it called? What is that whole consortium called?

MR. HAYMANS: I can't think of the name of it either, but that is what I'm talking about.

MR. HUNT: Wes Pratt tags sharks inside the park and nurse sharks especially. They hit our receivers, but they also went up. There was a marine turtle program out there that took advantage of our receivers; and many of them hit lots of our receivers and hit receivers farther north. We had about 75 receivers out at Tortugas. That is a $100,000 investment. The state of Florida; we were pretty tapped out.

MR. HAYMANS: And the last part of that then; so there is an intensive nearshore array. Realizing the cost; is it conceivable that there could be a somewhat less intensive but yet an array that is in deep water? Can you use it in deep water? Can you recover them in deep water up the coast to start a tagging effort?

MR. HUNT: Absolutely; you absolutely can. The logistics would change. The fish that we tagged at Riley's Hump; we got a permit to put a fish trap down. We figured out how to get the mutton snappers out of the fish trap without ruining them still on the bottom, got them upside down so they would calm down;, and we did the surgeries on the bottom so that we did not have all the barotrauma issues.

You would have to do some experiments. I am looking over here; it might be a good combined experiment with how to release fish and put these kinds of tags in them. I'm just looking at folks I had dinner with last night and talking about that discussion we were having. Most certainly, the battery life of the receiver is about a year.

The battery life of the batteries is about a year. If you can put the receivers out there and know where they are and have mechanisms to get them back and you can figure out how to tag the fish; the rest of it just sort of happens when you're not there. That is the great thing about acoustic tagging. Your challenge, of course, with snowy grouper, wreckfish, Warsaws is that you've got to figure out how to tag them without killing them.

Actually we had some; we had a couple yellowtails that we tagged that immediately got eaten and turned into – I think they turned into red grouper; I forget what they turned into. We tagged one tiger shark. The one tiger shark we tagged showed up somewhere or another; but I'd have to go look that up; but we just did that one for fun, because we could.

MR. FEX: I was just curious is the battery life on the tag a year, the acoustic tag that you stick in the fish?

MR. HUNT: Yes; it is about that.

MR. FEX: Okay, I was just questioning, because I know I saw a couple of years you had lost some of the fish, they didn't come back; and I just didn't know if the battery went dead.

MR. HUNT: The tag dies out, so it depends. If we were able to tag a fish in July; we have a few that showed up next year's spawning season. The battery life so far from this company is about a year.

MR. HARRIS: Obviously, Riley's Hump is a success story without a doubt.

MR. HUNT: Absolutely.

MR. HARRIS: Couldn't question it; wouldn't want to try to be the person to argue it. Although I think going along with my fishing buddy over there, as Rich was saying we have a lot of bottom area down in the Keys. As far as the mangrove snapper, I can see Toppino from my dock; I mean literally stand on my dock and I can see it; but there are other areas all throughout that expanse that are exactly the same of it.

MR. HUNT: I think that was the point I was trying to make on some of those outlier features.

MR. HARRIS: Yes; and I would personally find it hard to classify them as outliers unless you just mean the outcroppings.

MR. HUNT: Well, outlier reef is just a name. It is just that reef that shows up farther offshore. That is just a name.

MR. HARRIS: Okay, so not like outlier on data outlier.

MR. HUNT: No, it is just the name of a reef.

MR. HARRIS: Because there are a lot of those snapper there.

MR. HUNT: Yes.

MR. HARRIS: But the important thing, obviously, we're talking right now about species that are not in jeopardy, the stocks are fine, we've increased the limits, ACLs on them. The thing – and I think you were kind of hitting on it – is how can we use some of this technology and apply it to these deep-water species so we can see how things are going, because we've got the four-month closure, which impacts the Keys also; but all of a sudden I'm not seeing huge catches of black grouper up on the east coast.

I'm not seeing huge catches of red grouper, because those numbers aren't changing. I'm just wondering how that all applies as it does go downstream or upstream, depending on how you want to look at it, and how we can use this to make decisions on where to put an MPA for a spawning aggregation of speckled hind and Warsaw grouper.

MR. HUNT: I think you can use it – do you mean the technology or the overall information?

MR. HARRIS: The technology.

MR. HUNT: The technology can certainly help you find those migratory pathways, maybe find aggregation sites as part of everything else that is being done or when you have a suspected aggregation site be able to evaluate how it works. I think though that take-home message – I think the other take-home message here – and the take-home comes from Riley's Hump – is that if you build it they will come; and even if you build it for some of those species that maybe aren't in a crisis, they will come there and you will get yourself a big bang for the buck insurance policy.

My take-home message is that this is a great way to manage; and we could even use this same technology to evaluate other parts of the Keys, if we so chose, or farther offshore. You learn today the challenges from the presentations you had this morning of acquiring scientific data in those offshore environments and limited to a two-week cruise when clearly they need more time out there.

One thing we were blessed out in the Tortugas is that we could go and tow our own boat if we had to, which we did sometimes when we didn't have any money. We camped out on the beach at the park and worked for two weeks out there or sometimes we had a crew. It just sort of depends. I think it is great technology.

MR. DeMARIA: You shouldn't get too hung up on trying to protect every single spawning aggregation of every fish all up and down the coast. When you look at a chart of the Keys that has a species and the spawning place is identified, there are Xs everywhere; and gray snapper is a good example.

All these major spots like Riley's and Western Dry Rocks will have gray snappers that are spawning, but not all gray snappers spawn in these multi-species areas. What I'm interested in mainly is seeing these multi-species spots like Western Dry Rocks protected; not so much Toppino Buoy, I don't think that is a multi-species aggregation there.

MR. HUNT: I doubt it, but it was just an example.

MR. DeMARIA: Exactly.

MR. HUNT: An example of the kind of locations that fish will go to, but I would agree with you.

MR. DeMARIA: Yes; it is also an example that there are fish outside these main areas, too. Those are secondary ones like Will is saying.

MR. JOHNSON: Anyone else? Thank you, John; that was very good. This is sort of to you, Don. There hasn't been any work really done in these other MPAs compared to what has been done in Riley's. I'm sure there is spawning activity going on in some of the MPAs that have already been established for probably multispecies.

MR. BELL: Good afternoon. I'm Mel Bell; I'm the Director of Marine Fisheries for the South Carolina DNR. I am going to take a slightly different change of course here just to talk about something a little bit different. You will recall that occasionally in the conversation yesterday and today the topic of marine artificial reefs came up.

I can tell you from the past few council meetings folks have suggested, well, could we use artificial reefs as a way to perhaps mitigate for MPAs or create MPAs or what is the utility of artificial reefs? That is what I wanted to just make sure. I had actually given this presentation, which wasn't my presentation, to the Habitat Advisory Panel last week, I guess it was.

What I wanted to do was just make sure that you all understand what artificial reefs are, what they can and can't do. I will just kind of zip through some of the first stuff. I'm going to try to show you some video also of some special places. They are perhaps not as special and they are not necessarily spawning volcanoes. But they are, I don't know, little black smokers or something there.

Again my apology for video formatting, but some of it will work and some of it won't. This is a lot of what you've already seen in terms of what productive – what we would call hard-bottom areas off of South Carolina look like. It is a typical ledge system out there. These are, of course, the places where you would go to fish or folks would go to dive if it's a divable depth.

But these are important because they are what forms the basis of the entire ecosystem out there for these hard-bottom reef communities. Without the proper geology, you don't have the reef. Without the reef, you don't have the fish. What percentage of our bottom off the coast is this type of bottom; probably not a whole lot.

I can't quote you an exact percentage, but it is not the majority of the bottom. That is where artificial reefs come in. Of course, these are the various species we've talked about that live on these bottoms, and they don't necessarily restrict themselves through their entire life history to one depth.

You may find certain species at certain depths at certain times in their life; but they do prefer some type of hard bottom. This is the reason artificial reefs are popular is because this is what most of the bottom looks like out there, which is pretty much a flat, featureless sand bottom. The really cut-and-dry real simple explanation of artificial reefs is we take areas of bottom like this and we specifically target flat, featureless sand bottom. We add some type of suitable hard material, in this case concrete rubble from a bridge being demolished, and then just add water; and voila. Not stealing what John had said, we actually used if we build it, they will come as our – we had it on a tee shirt, too.

AP MEMBER: State level folks think alike.

MR. BELL: There you go; that's it; but that is it in a nutshell. We had some sort of hard substrate, in this case subway cars, and we'll try a little video here. This is what you get after about a year on the bottom in the case of subway cars. Subway cars aren't necessarily the perfect ideal material, but they do work for our purposes and the price was right when we got them.

This is in about 110 feet of water off of Charleston, one of our popular sites, the Comanche Artificial Reef. Over time, of course, this material will break down. My preference would be to use things like concrete, which are more in line with natural geologic formations. We're very imaginative in terms of what we use. Thanks to the United States Army; we have a number of these armored personnel carriers off the coast.

I want to show you this just because who swims into the picture here. This is in 60 feet of water off of Charleston; and you will see somebody you probably recognize in this, and wonder, gee, what are they doing in 60 feet of water; but that is my point. The species that we talk about a lot of times don't limit themselves to one particular depth of water throughout their entire life history.

See this guy swimming into the picture here. It is a puppy, but it is a Warsaw in 60 feet of water. I'll show you several of these throughout the day. It is just a baby, but they do come into shallower water. They don't limit themselves throughout their entire life history necessarily to deep water.

The primary purpose of our reef program since its beginning – and officially our program began in '73. You will find our program is fairly similar to programs in North Carolina and Georgia. Florida is a little different in that they have multiple programs. There is a state kind of coordination, but you'll find county programs, municipal program and things like that; but it is really primarily focused on enhancement of recreational fishing opportunities.

These would be considered our primary customers, and, of course, recreational fishing is a big industry, a big economic driver for our state. The other customers we have primarily would be recreational divers. They do some consumptive uses of the reefs like spearfishing, but they also like to do just a lot of looking around.

There are a lot of interesting things on the reefs from time to time. Recreational diving; 50 percent of our recreational diving in South Carolina is on our artificial reefs. Like most reef programs, we operate under an artificial reef management plan. We have sites along the entire coast. They range in depths from 10 feet of water to 110 feet of water; but we have one state program that coordinates all this for the state.

We do the same things other states do in terms of providing information to the public on where our reefs are; and they are very popular sites. Again, we do similar things in terms of running a program that you have to do to run artificial reefs properly and legally. We do site selection surveys. The picture on the lower left there is actually a sidescan sonar image of some of those armored personnel carriers you saw going in the water.

We do a lot of post-reef monitoring, both physical monitoring and biological monitoring. We maintain a system of buoys, also. We're fairly typical in terms of reef programs. As I mentioned earlier, our slogan was if we build it, they will come. It is a fairly straight formula for us. We placed the material down in a range of depths of water.

We sit back and we let nature happen. Over time you eventually get a very interesting, productive reef. That is our focus, if we build it, the fish show up; also – and this would actually say if I didn't have a problem between computers here that from an economic survey we did; our reef program generates over 200,000 trips to the reefs each year in South Carolina.

There is an economic impact of over $83 million a year to the state's economy. It is a driver for us in terms of our economy; but the basic formula is we build it, we fish it; we build it, we fish it. That is fairly straightforward for all reef programs. Now in our artificial reef management plan we do allow for the development of artificial reefs for different purposes.

If you look at artificial reefs as a fisheries management tool, the way we're using the tool is pretty much one way; we build it, we fish it; we build it, we fish it. We're open to the concept of, well, what if you used it a different way? Is there power in the tool if you use it a different way? What if you built it and you didn't fish it?

Could you build reefs for the purpose of just enhancing the fish populations, the species that we're all interested in managing? That was the question. If you were to do that, what would you want a reef to look like? This is a typical low-profile, hard-bottom area; but you notice there is not a lot of relief there and there are patches of sand.

We thought, well, okay that is something that maybe we could get our arms around in terms of materials and technology. That should maybe be what we strive for is try to build an artificial reef for these purposes that closely mirrors that type of a bottom. How would you do that? I mentioned earlier that concrete is my preferred material if I can get concrete.

We have over the years experimented with different designs of concrete. There is only so much you can do with half a yard of concrete or a yard of concrete; but we've been very imaginative over the years. Again the formula; you put it in the water and you let nature happen. The materials eventually cover over as would the natural marl outcroppings that are in these same depths.

Now in terms of what is the potential here; one reason we think there is potential is from experience. My experience goes back to the seventies diving for the Navy as well as diving eventually in the eighties for the state where occasionally we would find things. We would find things that had been lost for perhaps decades.

When we would find these things; and it could be anything from an aircraft to – in this case, this is actually a pile of World War II surplus things that were dumped off of South Carolina probably in the fifties or so. But the materials would sit there for years and years and years, and the reef would form, the fish would come and there was no fishing.

When they were eventually found, there would just be this huge biomass of fish. Some of you may have experience with that if you have ever found a wreck or been kind of one of the first folks to fish on a wreck that was sort of newly discovered. That is the other thing as well. We've had some experience in being relatively early in the process of diving on some wrecks that were World War II vintage.

I've been on wrecks that went down in the eighteen hundreds that we were probably some of the first divers to get on these wrecks. Again the biomass on there, the species diversity was just amazing as well as the invertebrate growth. You get that image in your head after a while, and you think, well, hey, what if we did that on purpose; what if we went out and built a reef and left it alone. Could we do that? How long would it take to get those results?

That is what is sort of driving this concept of let's try the tool in a different way. Let's see if we could build it and not fish it and see what happens. This is an earlier – this is actually a unit that we put down in 1996 just kind of playing around with this concept; and it is concrete. You can see that in terms of the growth you get on there; it basically starts looking like a natural reef, except you can tell that it is a big box in this case.

But you get some really nice growth of invertebrates, corals, nice coral colonies. I know that particular colony of corals is about 18 years old in terms of the time that material was there. Then eventually you get that. This is primarily black sea bass you're looking at; but this is the kind of densities of fish.

I know early on in my career I was finding things that the previous guys that built reefs in South Carolina had lost. One of the very impressive things my first year on the job I found a reef that had been built in the sixties. Then because we didn't have Loran back then and Nav was a little bit harder; I found it in 1984.

It looked like that in terms of the sea bass that were on there, and it is because nobody had fished it. You've got the potential of a lot of spawning potential in the sea bass; and this is the right depth of water for sea bass to spawn. We'll talk about that in a minute. Based on some of that we said, well, let's go try this; let's go try it on a little bit larger scale.

Back in 1998, we went out and actually created a reef site. We permitted it, went through a different process with the Corps so the site was not public. We were actually able to place 400 of these concrete units out there in four separate patch reefs. There were 100 units in each patch reef. This is what it looked like the first year. You can see they are starting to grow over.

This is year two and you can see it is already kind of hard to tell that is not natural bottom, except for some of the weird shapes. But the fish basically behave on there as they do on natural bottom of similar profile and a similar depth of water; species composition is about the same. Over the years we've done a good bit of work out here in tagging, feeding studies, invertebrate studies.

We've had I think five or six graduate students help with different projects over the years. But that is the beginning of what is referred to as Area 51. It is Area 51, because it is the 51st permitted area in our artificial reef management plan. It just landed that way, so we thought, well, that is kind of cool, we'll just call it Area 51. Another one of our friends here – this is in 71 feet of water, Area 51 – another Warsaw. They do come into shallower water.

This is what the site looks like about two years ago. As you can see, the sea bass were making a comeback. The fishermen were telling us that sea bass are making a comeback, but they were really making a comeback out there. We've documented spawning behavior of sea bass and triggerfish and spadefish on this reef; again shallower water.

There are grouper on the reef, and I'll show you some in a minute. We haven't documented any grouper spawning on the reef, but again it is a shallow site. Just in case that didn't work, that is a still of the same thing about two years ago; and this was last year. Again, the densities of sea bass out there are pretty impressive.

We had actually hoped through – we actually put in for stimulus money for a shovel-ready project back when that money was available. We asked for, I believe, almost $2 million; and what we were going to do was create jobs through the construction of this reef, but ensure jobs through what this reef could do in terms of enhancing fisheries and helping fisheries. Of course, we didn't get the money.

What you're actually looking at in these little segments is less than $5,000 worth of material. Imagine if you could expand something like this out to a larger scale with a million dollars. That is one of the limitations of artificial reefs in doing this. You might be able to create a nice little site that has the potential for input to the overall spawning of a species, but it is kind of a matter of scale. It is what you can afford.

That whole 400-unit project that I showed you originally was only $40,000. We took this concept from 70 feet of water out to a little over 100 feet of water in 2003. This is Area 53, not 52 – Area 52 is actually the area someone was talking about earlier – I think it was Phil – with the cameras. We did have an area off of Georgia by one of the towers where we had an artificial reef that Charlie Barnes back then got a grant from the Navy.

We had cameras down monitoring an artificial reef. The feed went back to the tower and up to a satellite. But the tower is gone away, the money went away, the reef is still there. This is Area 53 in 100 feet of water; again a Warsaw in 100 feet of water. This had only been down for about a year at this time. You'll see a lot more grouper out here in a little bit deeper water, gags, some B-liners, triggers, scamp.

AP MEMBER: Divers.

MR. BELL: Divers again, yes, they're all over the place. You see the lines. At this time we were doing video transects. I think this is the one. There are actually some red snapper out there, too; but this is just trying the same concept in a little bit deeper water. Here is a year or so later after we had a pretty good storm come through, so you can see some of the units are a little buried; but the invertebrate growth is a little more filled out, a lot more grouper in this one.

The concept here is that what we're doing on a small scale is, if nothing else. we feel that we're trying to work through do artificial reefs have potential to offer use as a tool used in this way? Can you build these sites if you leave them alone? What sort of spawning potential do you get? We've also done tagging studies that determine there is a lot of site fidelity, particularly with sea bass, but we've also documented sea bass moving as far as 60 miles. We found that some of our tagged fish – you tend to get some movement after storms, and we've had some pretty good storms come through, and it just kind of mixes things up; so these fish do not all stay on the site.

They will eventually move off the site, some of them, but you do get good site fidelity. We've observed, like I mentioned, the spawning with triggers and sea bass. The idea is, one, you can kind of test the utility of reefs used this capacity. It is a demonstration project. It kind of helps just kind of demonstrate the concept of an MPA.

If this were a little patch reef of hard bottom, would you get the same sort of thing if you left it alone, if you could leave it alone? But it is kind of amazing what you can do just building it yourself, I think. Carrying this concept into a little bit deeper water and kind of more of the discussions we've had; we had an opportunity a number of years ago to receive – well, we thought we were going to receive the demolished materials from the Cooper River Bridges.

If any of you guys ever drove across the old Cooper River Bridges, the Grace and the Pyramid; those bridges were retired. We needed a site that could handle the super structure from those bridges, and we needed deep water. We started about finding an area out in deep water. We

obtained Army Corps permit; we were already to receive it and then we didn't get it because the price of scrap steel had gone through the roof thanks to the growth in China of their economy; and so we never got the scrap steel, but we did get some of the concrete.

We had nothing really to put on this site. Plan B was we had hoped to get a Navy ship, and we had actually hoped to get an aircraft carrier. Long story short, the second attempt at a carrier was the USS Forrestal. This is actually America. But we had hoped to get Forrestal out on one of our reefs. The Navy was really keen on the concept, because they were willing to sink it if we could provide them with a site that was pretty close to 500 feet of water.

Our permit actually goes from 350 close to 500. That was close enough for them, but again the price of scrap steel basically directed the Forrestal and all Navy ships now to the scrapyard. Forrestal was just taken not too long ago down to Texas to be scrapped. Plan B didn't work. This is just great how this worked out.

We had a group of fishermen who were basically billfish fishermen, offshore fishermen, blue water guys that were pelagic fishermen that were interested in dolphin, wahoo, tuna, and billfish. They wanted to create a reef. They wanted to create a reef as a memorial to a number of their colleagues who passed away over the years.

They formed the South Carolina Memorial Reef Foundation. We agreed to work with them. The site, which you know as the Charleston Deep Reef, which became what has been discussed several times the Deep MPA Artificial Reef with nothing on it; finally we had an opportunity to get something on it.

Long story short, these folks went out and raised about half a million dollars themselves and have planned and were able to acquire some material. We couldn't get a ship, as I mentioned, but we were able to acquire two 270-foot barges. If you put those end to end, you basically have a good sized ship and then some.

As far as profile, there were some things that we wanted to do to add to the top of the barge to create some profile. That is what the first barge looks like. I think Stacey asked this morning was it out there or not; because there is a possibility that if we get this in the water by June, NOAA could actually do some monitoring of it or at least just see if it landed peanut butter down or peanut butter up.

This is the first barge. It was scheduled to go out in December; delays, delays, delays. Now they are preparing the second barge at the same time, so we're hoping to get these two barges out there in the next several weeks or so; but I'm hoping definitely before June. That is what it actually looks like.

It sticks up over 100 feet in terms of profile, so it should provide some interest to the pelagic species, which as a Type 2 MPA these fishermen that funded it are interested in fishing over. So carrying this concept kind of into other areas, what if, for instance, we were to do this same sort of thing in the corner of, say, that Edisto MPA, if we've done the survey of the bottom and determined that, say, the easternmost part of that reef is really sand bottom; could we perhaps add some material in there?

If you could find again suitable material, be it a ship or tug or something like that, or even concrete, low-profile concrete in that depth of water; is that a possibility? Anyway, that is just something to think about. Perhaps in addition to the Charleston Deep MPA Reef you could perhaps place artificial reefs in other areas to augment. Again, you're talking about a matter of scale. Will it create that special place that we're looking at for spawning behavior?

Again, what we're kind of keying off of are things like the Snowy Wreck; could we create a Snowy Wreck if you put stuff down in deep enough water? Could you create the Snowy Wreck on purpose and would the fish spawn there and would that then provide some additional input to the overall spawning success of the species?

That is the concept; it is a concept. Another thing to keep in mind is that artificial reef programs are managed by states. States would have to buy into the sort of concept; but there would have to be close coordination with the states. There would have to permitting of the sites even within an existing MPA.

There are different ways to do it, but it just kind of to get you to think about the use of artificial reefs as a tool perhaps in a different way than we've used them before. I personally feel, based on my experience over the years, that they do have some value. Maybe they are not that huge spawning area, but they are contributing at least in some cases to the success of some species.

Again, working in deeper water is obviously much more difficult than working in shallower water where I've been working or we've been working over the years. It adds expense when you're in deeper water obviously to the construction as well as to the monitoring. It is something to think about.

Also, there was discussion about Type 1 versus Type 2. I think these things used as Type 2, like the Charleston Deep is a Type 2 MPA, the fact that you have people out there that can fish legally means that you've got eyes and ears out there. If you've got folks that have intent of breaking the law, if there are people around, they are perhaps a little less apt to do that.

I've discussed this with law enforcement, Mike and I talked this morning a little bit about that, and I think some of the questions about, sure, if you've got a box and the box, just nobody can go in the box; well, yes, that is kind of easier to enforce. But if nobody is ever out near the box, who is going to know if anybody is in the box? I think Type 2 does have a lot of validity in term of use. With that; if you have any questions, I will be glad to take a shot at them.

MR. HARRIS: Thank you very much; that is very encouraging. I'm a big supporter of artificial reefs. I'm not so sure if this is a question for you or possibly for staff. Is the scientific community recognizing fish that are inhabiting artificial reefs as part of the SEDAR or any surveys that they do?

MR. BELL: You may have heard this morning – I think it was Tracy maybe that said it – MARMAP doesn't sample on the reefs. The fish that come off the reefs in terms of the fishery-dependent data; any fish that might be intercepted through the MRIP Program or whatever fall into that. Well, in our case you wouldn't typically find commercial landings on our reefs. But, yes, if that is the case, if the fish come from there, they would be incorporated in terms of data. But there is no focused – like MARMAP doesn't go sample the reefs or anything.

MR. HARRIS: The reason I bring that up is because I just remember some of the pains that have gone through fisheries in the Gulf of Mexico to where they are not counting the fish that are on the oil rigs or the rigs that are being torn down. They are only counting the ones that they see on natural bottom. I just wondered if the same thing would apply here, because that is a lot of unaccounted for species and fish.

MR. BELL: Yes; what I guess it really represents are particular little areas of habitat that you are not sampling. Yes, I follow you, but it would be difficult to do the kinds of things that MARMAP does on some of these sites, because MARMAP could come in and fish the site out in sampling it in terms of the magnitude of the site or whatever.

In terms of how we regulate the fisheries, the landings and all; the landings come from everywhere. The landings are from off the artificial reefs; they are from off the live bottom; they are commercial, and they are recreational. Really, the fish are kind of accounted for in there, but you're right there is kind of no let's add some extra here or something. I follow your point.

MR. HARRIS: Well, my concern is if they are counted as coming from somewhere, but if the fish counters aren't counting except what comes off of natural bottom, and they are catching them off artificial reef; well, they attribute everything to the natural bottom and they shut our fishery down.

MR. BELL: That kind of gets into how you do a stock assessment and all; but I don't see it as being a detrimental thing that they're not doing fishery-dependent sampling on those sites, because I think there would be more danger if you tried to because you would literally fish the site out trying to collect the samples.

All of our artificial reefs in federal waters are special management zones through council; and that is because the use of things like traps and very efficient gears, you could fish a reef out like that. Imagine something like this; imagine throwing a sea bass pot in the middle of this. All of a sudden there goes your reef. You might have some good data but.

MR. MUNDEN: Mel, I have a question about your two reefs, 51 and 53. Is harvest allowed on those reefs?

MR. BELL: They are not published sites; but if someone were to find them, we couldn't stop them. That is one of the dangers in how we did that. Our fishermen have been pretty good. The word is out; they know they're there, and we occasionally get kidded about, well, give us the numbers; but nobody has ever really pushed that point. But they currently have no official layer of protection in terms of they're not an MPA; they are not an SMZ. It is just a very small artificial reef that we don't talk about a lot.

MR. MUNDEN: I assume they are not identified with buoys?

MR. BELL: No sir, no buoys.

MR. DeMARIA: I think artificial reefs have their place, especially up in this area where you've got a lot of sand bottom, but I wouldn't want the AP to come away from your presentation thinking that we could possibly replace thousands of years of evolutionary behavior like we have

at Riley's; these multispecies spawning aggregations with an artificial reef just place a few miles away. That I don't think would be a good idea.

I like the idea of maybe doing some mitigation work for MPAs with artificial reefs. Terrell brought that up the other day when he talked to me. That is an excellent idea; sinking some concrete or ships inside MPA areas might be a good idea, but not replacing the big multispecies spawning aggregations with MPAs.

MR. BELL: Thanks, Don, I'm glad you mentioned that. It has never been my intention to suggest that. That is why I wanted to make sure everybody understands it is a matter or scale, it is a matter of thousands of years of how these special places became special places. I think it is simply we have a tool; we've been using this tool one way.

I think we could use it a little differently and get some more power out of it, whether it is demonstration projects or experimental platforms to test. A number of times we've fished a couple of those patch reefs down to nothing. I mean, we have literally fished them down to nothing and then watched them come back. It has actually come back in less than ten years; it is a matter of three or four years and kind of rebuild.

There are different things you can do with the tool, but mitigation perhaps is another one. I felt like things like sea bass, where I am real comfortable with spawning, you are augmenting the system. If you could set that aside, you would provide some input. It wouldn't be that volcano, but it would be some potential input. You would be doing some good.

The other thing, too, to think about is you saw the video. Imagine if you could create something that was a million dollar version of that. If you allowed recreational divers to visit but not touch; you could create one heck of a draw in terms of stimulating the recreational diving community. I've talked to the guys in the Florida Keys. They sink a lot of ships in the Keys; whether it was the Spiegel Grove or the Vandenberg, millions and millions of dollars to get one ship on the bottom, and it draws a lot of tourists and all and divers. One million dollars, I could create something that would be really unique in terms of seeing it.

MR. DeMARIA: I agree with you; I think we're on the same page.

MR. HARTIG: Along those same lines, where we are – and Scotty will verify this – if you build it, they will leave. They left all the natural bottom. Amberjacks left all the natural habitat that they ever spawned on for as long as the 30 years I had been fishing them before that. For a number of years, that wasn't commercially, that was recreationally.

Then they put in two barges just northeast of Palm Beach Inlet and the entire spawning population of amberjacks left the natural bottom and went to the artificial reefs. There are some dangers with that. Are those reefs in the right kind of areas where when those fish spawn; will those eggs and larvae be carried to the same areas where they had spawned previously; you know that Saur Sink argument about what happens when fish spawn in the right areas?

I wrote a letter to the Sea Grant or a short e-mail to the Sea Grant people yesterday. They are having a conference on artificial reefs. I think some of this stuff fishermen have observed over

time – I asked them to put it on their agenda for the meeting to bring in some fishermen and talk about what has happened with artificial reefs?

We've seen the same thing with gag grouper in Fort Pierce where gags actually leave the natural bottom and come to the artificial reefs and spawn. Some of these things, yes, you can form spawning aggregations, but are they in, as Don mentioned, the right areas that actually support your populations like your natural bottom did. That is a tough argument to answer. But it is one thing that we've observed in our area that things change when you put those reefs in.

MR. DeMARIA: I agree with Ben on that. Like in the Gulf where the Goliath grouper aggregate, it is an area and then within that area there are a lot of different sites. I always wondered where they spawned before all those wrecks were out there. Who knows? This is kind of humorous, I asked Eddie Toomer, a friend of mine from the Gulf Coast; I said, "Eddie, why do you think there are so many Goliath grouper on these wrecks rather than the hard bottom and the small ledges that are out there?"

He thought about it for a while; you know, the wrecks are real big with holes in it. He said, "Well, Don, would you rather camp out in a tent or sleep in the Hilton?" I said, "Well, that pretty much sums it up." It is just they are so big and they are so cavernous, the fish are just attracted to them. There is something about the metal, too. I think Ben is right about that; it does alter behavior and there may be a little danger in that, too, if they do use them to spawn and a lot of fish do.

MR. JOHNSON: Yes' I think the question that has to be answered is the location. Is the location suitable for the larva to do what it needs to do; because if the intent is to protect spawning biomass, then if they're coming from everywhere to go there; that seems like that would be a really good thing. I guess the question to answer is what is happening to the eggs after they leave there?

MR. BELL: Yes; and you saw some of the cools models. Now that we have a much, much better understanding of currents; that would be something you would take into consideration in site selection for something like this is to try to work the hydrographic data you have and the current and make sure you put it in the right spot.

Again, you're making your best estimate of what would work. Of course, not knowing what has worked for the past 10,000 years or whatever; But at least you do have access to a lot of those data that you would ideally use in making that decision about where to put them.

MR. WAUGH: You've had the presentations that the council wanted us to have you see; and we've also had some additional presentations. What we're going to do for the rest of the afternoon is just outline the decision documents, if you will, for you all to consider. Then the idea is for you to talk about this overnight and then come back in the morning and give us your guidance.

The first one is the Scoping Document. That is Attachment 3C that you all have in your briefing book. I am not going to walk through this entire document. You all basically went through this before. We have provided the council with your recommendations. This is what the council has approved to go out to scoping in August.

It has got four actions; to retain and/or modify the existing Snowy Wreck and establish new MPAs off of North Carolina; retain and/or modify the existing sites off of South Carolina and look at new ones; the same thing off of Georgia; the same thing off of Florida. Now, if you've looked at this, one of the items that I want to point out to you is at the last meeting the council did not address your recommendation to remove the impact analysis, so that is still in there.

If that is something you would like them to revisit, you may want to provide some guidance on that. The information is in there in terms of the level of bycatch that we're trying to address. Then it goes through and lays out – it has your motions in here from your last AP meeting in November of last year; and then lays out each of the actions.

Again, I'm not going to go through that; I'll just explain one of them to you. We've got no action as usual. Action 2 is to modify the existing Snowy Wreck MPA. We've got several alternatives there in terms of changing the size of it; and then looking at establishing new sites based on documented occurrence.

Then where possible we've got alternatives that are based on documented spawning. We structured the alternatives for each of these the same way; and in this case for the sites off of North Carolina, there aren't any new sites based on documented spawning; so we're recommending that be removed.

One of the suggestions from the last time you all looked at this is to pull in some of the information from the MPA Workgroup recommendations, and you've seen these items this morning. I'm not going to go through that; but it supports why the MPA Workgroup approved those sites.

That is where we are now. The council is scheduled to take that document out to scoping in August; but they wanted us to come back to you, get your input on that. Also, we've talked with them about a potential alternative approach; and this is Attachment 3D. I just want to walk you through that and explain this to you, so that then you can provide us your recommendations.

Do you feel the council should just go out with what is existing in the scoping document; should they look at this new approach; should there be some blend of the two or do you have some other recommendation for the council? Again, we touched on this a little bit. We implemented the closure, then removed the closure, we got sued. We're supposed to take some additional action. We're looking at that through Snapper Grouper Amendment 17.

The one new action that we have taken, as I mentioned earlier, was Coral Amendment 8; and that is in review. That will, if approved, implement an area of protection of 843 square miles; and we get 50 percent effectiveness on that. Then we're also evaluating additional action while waiting to hear what the outcome of that lawsuit is.

Regulatory Amendment 17; the purpose is to reduce bycatch of speckled hind and there are 474 estimated to be caught in 2012; and Warsaw grouper, 202 in 2012. That is the latest data that we have. The presentations the council received in December and you all got here; the sort of takeaway is that we know these sites work.

Outreach, all the goals were completed. We've got issues with limited law enforcement and limited monitoring due to existing and anticipated levels of resources. There is concern about including currently opening monitoring sites. It is difficult to provide the public with concrete evidence of changes based on the work that has been thus far and the length of time it has been closed.

The Experimental Closed Area has been closed for 20 years; and it is a little bit discouraging that we can't show the benefit there; but we know they are providing some positive effects. That was part of the utility of looking at other areas in the U.S. like Riley's Hump where we can see some benefits.

What the council has determined they'll do is task the staff with working with a number of scientific groups to put together what is called a system management plan. This will outline in detail the specific projects with the estimated cost for each project, what is required to effectively implement, enforce, monitor, and evaluate the existing MPAs.

Now, we have to acknowledge that continuing resource issues are going to be a problem; but at least then we'll have a comprehensive management plan outlining what should be done to evaluate our existing MPAs. As I said before, the council approved a list of Type 2 sites that just prohibit bottom fishing snapper grouper species for scoping in August; and they have asked you for your input.

Part of the concern is that large MPAs will meet with lots of public resistance; and the process of moving forward would likely result in failure for new MPAs. It took us a long time to get the existing MPAs in. The question is how do we proceed from here? We have several separate ongoing efforts.

If spawning aggregations are identified, those locations are identified, they are immediately considered essential fish habitat, EFH, and EFH-Habitat Areas of Particular Concern. That will provide those areas with additional habitat protection from non-fishing impacts like energy development, other offshore activities. That has been in place since October of '98.

Also through our snapper grouper framework, the council can close areas identified as spawning locations; and that was included in Snapper Grouper Amendment 4 in April of 1991. That is an avenue that could be used; and indeed that is what we're looking to do with Regulatory Amendment 17. Then also placement of artificial reefs; and that is why we wanted to include Mel's presentation here. Part of the rationale for the Snowy Wreck being the size it is and the creation of the Charleston Deepwater MPA was to have a site that you could put material in.

We've got an opportunity to modify the approach the council is taking. They have committed to take some additional action. We've done a little bit with Coral Amendment 8. They are moving forward with additional work. The current approach is to take all the sites identified by the MPA Expert Workgroup out to public scoping.

Again, there are concerns about doing that. There is a potential alternative approach that would create what we propose would be called spawning special management zones off of the four states; that we scope a process for identifying spawning sites and aggregations for all snapper grouper species, including speckled hind and Warsaw.

Right now Regulatory Amendment 17 is just focused on speckled hind and Warsaw. This would broaden it to include our other snapper grouper species while not losing sight of the need to provide protection for speckled hind and Warsaw. We would look for these special sites. Appendix A has the details for that and I will walk you through that in a minute.

We're making very clear that this approach that we're talking about only considers prohibiting fishing for and/or possession of snapper grouper species. Fishing for all other species would be allowed. The idea is if the council chooses this, then during scoping and public hearings the public would be encouraged to suggest sites.

We wouldn't be going out with any sites; we would be going out describing a process. We would also explore placement of artificial reefs within existing MPAs to target Warsaw grouper and speckled hind and other species. You can see the affinity of Warsaw grouper in particular for these artificial reefs.

An important part of this is that the alternative approach would assume that you're not making any changes to existing MPAs. We recognize there are issues with our existing MPAs. We're going to keep them in place. We're going to shore that up with this system management plan. Then as we move forward, if this alternative approach is used, then we would go in and strategically look at spawning sites and give them some protection.

It would be expected that these would be smaller sites and benefit many species. Really, part of the genesis for this idea came out of the motions that you approved at your November meeting. We feel that provides an indication of the level of support that could be expected from the public for smaller, targeted locations that focus on areas of known spawning.

We hope that NGOs, scientists and other members of the public would come around to see the benefits of this approach. We feel a likelihood of it being implemented would be high or at least higher than going out with the MPAs as they're proposed now. As was mentioned, this would promote voluntary compliance, enforceability of those smaller areas more frequently visited may be better. We asked Michelle Duval, who is our Snapper Grouper Committee Chair, and Ben Hartig who is our Council Chair, to let us present this alternative approach for you to weigh in on it.

What we're looking for tomorrow morning is for you to come back and discuss these two approaches and provide a recommendation to the council. Let me just touch on timing. This new approach, if it is accepted, would not alter our timing. The council is going to be looking at your recommendations in June and telling us what to scope.

Those scoping meetings would take place starting August 6. September 15 through 19 in Charleston, the council would review scoping input and provide guidance for a more complete analysis. At the December meeting in North Carolina they would review the analyses in the amendment and approve it for public hearings.

Those public hearings would be held in January 2015. March they would review the public hearing input, modify the amendment and approve all actions. Then staff and the IPT would finalize the document; and they would look at it and give final approval in June in Key West; and

then send it for formal review June/July with the expectation that regulations would be in place January 2016.

Let's walk through and talk about what are the specifics of this alternative approach, and then I'll be glad to answer any questions. The purpose and need right now is specific to speckled hind and Warsaw grouper. We've got wording that was approved by the council at the September meeting. We've got some IPT recommendations.

Then in order to meet the needs of this new approach, we've proposed some additional modifications that broaden it and emphasize the idea of protecting the habitat, promoting recruitment, and reducing bycatch mortality. We want you to weigh in on this. An important criteria is site selection.

The proposal is that this would be done with scientists to examine the bottom topography, current systems, to identify likely sites and current systems. Where possible actual on site observations would be made by scientists. This can be pulled from the scientific literature. It would certainly be based on the work of the MPA Expert Workgroup, because that pulled a lot of information together; but preferably it would be based on more current collaborative work with scientists working with fishermen.

Potential sites could be suggested by the public and fishermen outside of any cooperative research efforts. Those would be examined and considered as well. We wouldn't be going out to scoping with any sites. We would describe this process; and during scoping and public hearings the public would be encouraged to suggest sites for consideration.

How do you determine the size? Well, we propose that it be examined on a case-by-case basis. We're suggesting that we don't build in a buffer. Every attempt would be made to keep the areas as small as possible to protect the important bottom topography while minimizing impacts.

The proposal would be to work in workshops or scoping and public hearings with fishermen; identify the spot; and then you would basically draw a square around that box as big as people felt was needed to protect the habitat and to protect the areas, but keep it as small as possible; and at meetings have the ability just to vary the size of those boxes and get peoples recommendation on what should the size be?

It also raises the issue of seasonal versus year-round closures. It raises the prospect that some of these could be year round, some could be seasonal. Certainly, year-round closures would provide protection to the physical bottom and the habitat while protecting fish that are resident in that site. Seasonal closures would protect the spawning fish aggregation while allowing access to fishermen, but could lead to impacts on the habitat and removal of resident fish.

Artificial reefs; we've talked about that some; you've seen a presentation on that. Under this new approach we would encourage the placement of artificial reefs within existing MPAs to target Warsaw grouper, speckled hind, and other species. This would augment the protection for those species.

It also raises the potential of modifying other regulations. We have the four-month closure. This was originally established to reduce landings and was scheduled to provide additional biological

protection during the spawning season. When we did that in Amendment 16, this was to target a 20 percent reduction on the commercial side and a 31 percent reduction on the recreational side.

Well, now we have ACLs in place that limit the harvest; so the potential is there that the council can come back and look at modifying that four-month seasonal closure if we were to get other protection in place and the council felt that there was sufficient spawning protection that they could move off of that four-month spawning closure.

Were they to do that, then we would do any necessary analyses; and that would be done through a plan amendment or regulatory amendment. We would also put together an enforcement, monitoring and evaluation plan for these sites. We feel that a written plan outlining the specific levels of enforcement and monitoring that are necessary to determine the effectiveness would be developed and set some specific time period that you're going to review these sites; not a sunset up at front, but at least a commitment on the council's part to review this every so often and to determine whether they need to be modified or whether they need to be removed.

But as you saw from a number of the talks today, it takes five to ten years for the benefits of these areas to start manifesting itself. You don't want to have a review too quickly and not be able to show benefits. The suggestion here is to leave MPAs alone and look at these as providing protection for these special areas; and we are suggesting that you call them special management zones. Mel mentioned this in his presentation, and we've done this around a lot of artificial reefs.

What I've included here is the entire wording of that action from our original FMP back in 1983. It is interesting; you compare that and the analysis to what we have to do now; life was certainly a lot simpler back then. You can look at that; and I've also included the changes that we've done over time; the SMZs we've put in place.

We've got SMZs that limit the type of gear. We've got some off of Florida that allow spearfishing and some that don't. We've talked about creating special management zone protection around areas and allowing no fishing. Also in our Comprehensive Ecosystem-Based Amendment 2, we've limited harvest and possession of snapper grouper species in SMZs off South Carolina to the bag limit. We did the same thing for coastal migratory pelagics. We've used this special management zone concept for a number of related items

But we feel that we would need to modify that wording that is included there in the original FMP to make clear that this SMZ procedure needs to be modified and would be expanded to provide for the creation of these spawning special management zones. It does nothing to change the existing SMZs that we have in place. This would be a separate process for additional ones.

Again, we want you to weigh in at this stage the extent that you can on any of these specific details and any recommendations, of course, would go to the council. I would be glad to answer any questions about what's being proposed either in the scoping document or the alternative approach.

MR. COLE: Gregg; that is going to be an awful lot in 17 if you look at all this regardless of which pathway we go. Let me see if I understand this so I'm not wasting a whole lot of time

tonight trying to put motions together that are going to fail tomorrow. The ACL for Warsaw and snowies is what?

MR. WAUGH: The ACL is zero landings for Warsaw. For speckled hind?

MS. BROUWER: He said snowy.

MR. COLE: I'm sorry; for speckled hind.

MR. WAUGH: I don't know; I would have to pull that out.

MR. COLE: All right. What we're doing here in response is in some measure a reactionary or substitute response for the loss of the 240 in order to meet some of the proposed actions in that lawsuit to protect the two species with the zero ACLs and contain the bycatch to the minimum possible; right?

MR. WAUGH: That is correct. The 240 addressed bycatch for those two species, and that was in 17B. By removing that – and the argument with removing it was the impacts were high and the benefits were marginal. Since the argument was made in 17B that we need to have some additional protection for speckled hind and Warsaw; since the 240 is removed, now we need to come back in with something; and so that is why we're looking at it.

Let me point out one thing here. If we go down the road of this new alternative approach, our suggestion is to do this as a new snapper grouper amendment and not continue with Regulatory Amendment 17. Since we have to modify the SMZ process, that would take a plan amendment.

MR. COLE: I think that is a good point. This thing is beginning to grow, as it should, to deal with spawning aggregations for other species and all this sort of stuff. But I guess in my mind, what is priority; is it priority to deal with the speckled hind and Warsaw, and then the other species kind of follow behind it with all the good things that we do; or are we just doing one of these to come up with a new amendment that just benefits all of them, anyway?

MR. WAUGH: The priority has to be protecting speckled hind and Warsaw grouper. One of the criticisms of the approach taken in Regulatory Amendment 17 is it is just focusing on those two species. Given the level of bycatch and the level of impacts, it is hard to justify just for those species.

I don't think that we would be hurting ourselves if we broaden the approach a little bit, but just made sure that we included protection and could demonstrate we were providing additional protection for speckled hind and Warsaw. Remember, we've already done and submitted to the secretary Coral Amendment 8 that provides some new protection.

I think as long as we get something in place to provide additional protection for speckled hind and Warsaw, we'll be okay. Part of the idea of looking at this alternative approach is, sure, you can move forward with these large MPAs as is currently in Regulatory Amendment 17; what is the probability of getting some actual regulations in place versus taking a slightly different approach, broadening it a little bit, zeroing in on the areas, and perhaps having a much higher

potential success of implementation? That is sort of what the council is going to be weighing and is asking you to give some guidance on.

MR. DeMARIA: It seems like if we can identify shelf-edge areas in the right depth where Warsaw and speckled hind are found and there are other species that aggregate there, red snappers, gags, amberjack and whatnot; that the chance of Warsaw and speckled hind being there and spawning is probably going to be better than just if we randomly pick a spot out there.

I think it is going to be hard to actually find Warsaw and speckled hind in aggregations, if speckled hind even aggregates; I don't know. Some species like red grouper don't. I also wonder if it might be more acceptable with the public with any of the zones that we create, that we take that square mileage away from the existing zones already.

In other words, if we create one that is 10 square miles or something, we open up a 10 square mile area that is already protected and keep the square miles the same so we're not constantly taking. I wonder if that would be a little more acceptable.

MR. WAUGH: I'm sure it would be. It is a nice approach if we could take it. Because now the MPAs are in place; we made the argument in 17B we needed to do more and that was the 240. Then we took the 240 away and so, okay, what are we going to replace the 240 with? The problem is if you start arguing, well, if I create more than we're going to take away what we have; you are not net increasing anything.

MR. DeMARIA: We may be putting them in more strategically located areas, bigger hard bottom – and that is certainly better than a patch of sand, which a lot of these existing ones are.

MR. WAUGH: That is true; that is an argument that you could make, yes.

MR. PERRETT: You guys, if you have had some discussion on the site selection process, you haven't talked at all about how long the process is going to take. Is it going to be something that takes months, years, or decades?

MR. WAUGH: The idea is that it would take place within this timing that I outlined. The council would go out to scoping in August, assuming they go down this new approach as here's the process and asking people to give suggestions for sites. Then we would work with any suggestions we get plus pull what can be pulled out of the Expert Workgroup Report, work with other scientists, work with MARMAP, work with Will and the cooperative research he's done to identify some potential sites; and so then when we go out to public hearings in January, we would expect to have some potential sites at that stage. The timing as is laid out is not proposed to be changed at all.

MR. PERRETT: I guess to really determine if it is a spawning site, I thought you've got to at least to go through one spawning cycle, right, to identify the fish that are going to be there. Getting back to your point, you may not be able to do that.

MR. WAUGH: I think, too, you have to view this as a process. The first time around we would be implementing this as a way of looking for these special sites; and within that first amendment we should include some sites; but certainly as you point out, you won't have them all, you won't

know where they are. As you identify new sites in the future, you can then come back and address them and see if you want to provide additional protection to those sites.

MR. PERRETT: I guess are you going to have a provision in there to take out sites that you put in that actually don't turn out to be sites; have you talked about that?

MR. WAUGH: Sure, and that is why creating this plan that calls for a periodic review would have you look at sites; again keeping in mind the period of time it takes for a site to get fully established; but, yes, have a mechanism in there that if sites aren't working; after those periodic reviews; then they would be removed, that protection would be removed.

MR. HULL: You answered the question. It was pretty much how do you groundtruth the sites; that was it.

MR. JOHNSON: What I sort of took out of some of the presentations I saw today was characteristics of a site had a lot to do with it. You may not be able to identify spawning aggregations this year, but some of the work that already has been done sort of identifies what to look for as far as the characteristics of those places.

MR. WAUGH: One thing to emphasize here; we really want to emphasize that the best way for sites to come forward would be through cooperative work with scientists and fishermen actually doing the groundtruthing, where they find areas where the fishermen feel are special. That will help with public buy-in and that will help with voluntary compliance as well.

MR. JOHNSON: Okay we're running late, so I think the best course of action now is probably for everybody just to chew on this while they chew their supper. We can jump right back into it in the morning. Okay, wear some nice clothes tomorrow because Kim wants to take your picture; and a 9:00 o'clock start time.

The Snapper Grouper Advisory Panel of the South Atlantic Fishery Management Council reconvened in the Crowne Plaza Hotel, North Charleston, South Carolina, Thursday morning, April 10, 2014, and was called to order at 9:00 o'clock a.m. by Chairman Robert Johnson.

MR. JOHNSON: Okay, guys, if we could gather around; hopefully, everybody had some good conversations over dinner last night. Bill, do you have something this morning?

MR. COLE: Mr. Chairman; I know that Don has a motion that he is going to put on the floor in just a minute; but I think that from where I'm sitting, there ain't no happy direction to go. I hope that everybody around the table recognizes that regardless of what we do today, we're not going to solve this court suit. There ain't no way.

If you look at that court suit – and I looked at it I guess 20 times last night – the only thing that we could do, which we would never convince anybody of, would be to close the whole area until those two species with zero ACLs get back to some harvestable number. That is not going to happen.

I may be stupid, but I'm not crazy, so I'm not going to even go with a motion to help the agency out here. The agency created this mess and they will just have to deal with it. I do think that

since we can't do that; that just perhaps the alternative plan probably is the only realistic option to accomplish anything in the near term in a positive manner. With that context, I would hope that you would recognize Don and that we can begin to move in a positive, constructive manner to advise the council as best we can on the few limited options that remain available to us.

MR. JOHNSON: Thank you for that, Bill. Hopefully, we'll have some discussion this morning before we make any motions. I'm sure people have things on their minds, concerns or otherwise.

MR. DeMARIA: In the last 20 years I've had the privilege of working with a group that has collected invertebrates all over the world; so I got to dive from South Africa to Viet Nam to Alaska and many different places. Everywhere we go, we end up collecting in marine reserves mainly because the countries want us to collect and see what's there and we identify the invertebrates.

Everywhere without exception there are more fish in these reserves than outside. Without exception, the locals opposed them at first and then embraced them in the end. But they have got to be well thought out and not what we did in the Keys to begin with; just proposing huge areas and hoping that would enclose something.

I think they have to be well thought out, smaller areas where fish spawn; and that I think would work for us very, very well; as Tortugas has been shown to. Tortugas I think could even be a bit smaller, Riley's. Although I've been a big proponent of reserves, I think they have to be very well thought out and strategically placed. That is where I believe we're going with this alternative proposal here.

MR. PERRETT: I guess I thought a lot about it after what we heard yesterday. I guess the data that was presented yesterday kind of hit home to me. One of the things that I agree with making a point that if we closed all of the new MPAs, it was only going to have a very small impact on fishing. It was only 2 percent in some areas, 1 or 2 percent in other areas.

Effectively, if we did that, we wouldn't have much impact on the Warsaw grouper or the speckled hind, because we're not fishing those areas, anyway. We did report that we had a number of catches over in 2012, and it was 4 or 500; I don't remember the numbers. I guess it is food for thought as an alternative.

Even if we implemented all the MPAs, we're going to have a very small impact on those two species, because we don't have a lot of effort going on in there to start with. Again, we talked a little bit about this a couple days ago, and I'm going to pass this around. I guess I've become a big proponent of decompression release devices. This is something that is out there now, used for rockfish and it costs about six bucks. You can put it anybody's boat.

We could probably have one a little bit bigger – I'll pass this around and let you look at it – a little bit heavier one designed if we wanted to release a 200-pound Warsaw. But just food for thought as we go through the conversations today; wouldn't it be better that if we came up with a way to safely release these fish.

Maybe it is 80 percent; maybe it is 75 percent effective; but wouldn't that do more for the species than closing some areas that are not getting any activity anyway; and we may save 80 or

90 percent of the fish that are caught. That is something I wanted to throw out there for people to think about.

Here is a way to think about it; as an alternative to the 240 foot closure, let's say that we required some kind of descending devices if anybody is fishing more than 180 feet, I don't know, 150 feet. I've heard the argument I can't afford to spend any more money. If it costs fifty bucks or if it costs a hundred bucks, that is too much money.

But personally from a commercial standpoint, if you can go out and fish in 150 foot of water off of Georgia, Northeast Florida, or 180 feet of water; you can damn sure afford to have a hundred dollar device on the boat, because you are going to spend a lot more money on that in fuel just going out there; just food for thought for the group.

MR. JOHNSON: I think what we need to keep in mind is there is not going to be just one thing that does what we want. I think what you're saying is great; and I am supportive of some sort of release device being used. But I think it is important that we also recognize that, yes, this puzzle has got a lot of pieces and we need to put them all together if we're going to get it done.

MR. PERRETT: I completely agree with that. Again, I am a big proponent of what we've been talking about and about protecting spawning areas. I almost think that is a separate issue that we may want to separate from this issue of the Warsaw and the speckled hind, because it would protect a lot more than that. I think it is a longer project. I think we need to – as Don said; he has had a lot of experience with it and we need to be smart about it. If we're smart about it and we take it in slow steps and do it correctly; it could be an awesome thing for the fishery, and I'm very supportive of that as well.

MR. DeMARIA: I think the release devices are a good idea, but you're not just going to put it on your bandit reel with a 200 pound Warsaw and let it down. It takes a lot more weight than that. I've done it with Goliath grouper when we were working in the Gulf. It takes a lot of weight; their swim bladders are pretty big.

These people might not even have that much weight on the boat sometimes to bring these fish down. I'm just not convinced that when you bring a Warsaw out of 300 feet or so and his eyes are bugged out and his scales are standing on end; that is going to live. I don't buy that one.

MR. PERRETT: I guess I don't disagree with that, Don. I think this is one area though that has some potential. Certainly it could be a recommendation to the council that we do some more research on it and understand. Again, most of the people though that have the small gear are not going to catch a 300 pound Warsaw, anyway, because their tackle wouldn't hold it. They would break off before you ever got him to the boat.

MR. PHIL CONKLIN: This question is for Don. How much weight do you use when you let those Goliath grouper go, like a 200 pound fish or a 300 pound fish?

MR. DeMARIA: I can't remember; it was over 10 pounds. It was quite a bit, probably about 20 pounds or so. We kept putting weights on and weights on to get them down. We had one of those release devices that Michael Domeier made 15 years ago or more; and that even had a weight on it and we had to add more to it. It had about 5 pounds on it; and we had to add quite a

bit more. For a big fish, it is a pretty big swim bladder. You know what they look like when they come up; it is displacing a lot of water.

MR. HARTIG: Just to inform that conversation just a little bit; to put a 50 pound Warsaw back down, it takes 20 pounds, because I do it.

MR. JOHNSON: We can sit here and debate whether they survive or not, but I guess to me the point is if we changed discard mortality even by 1 or 2 or 3 percent, that is an improvement and we need to do it. That is how I look at it.

MR. HULL: I was just going to make a general comment. I agree with the descending device use that needs a lot more thought and research; but it has potential. As you said, anything that we can throw into the package to help reduce mortality would be good.

But on talking about the alternative approaches and the idea of much smaller spawning aggregated areas that are elbows, so to speak, that we know that snapper grouper species tend to gather and spawn; but also knowing that the two targeted species that we're very concerned about are Warsaw and speckled hind, it is going to be – if we go this way, I believe that the fishing community at least in my area would certainly be receptive to small areas that we could actually say, yes, this is a bona fide area that needs to be protected not only for gags and all the snapper grouper species, but Warsaws and speckled hind spawn here; and somehow let them know that; and I believe that they would accept small areas and embrace it.

I think it would go; I believe it could be successful; so that is the way to go, for sure. But the general public, the fishing community is so leery of all of this and leery when they see a fishery shut down, that the assessments don't match what we're seeing at the side of the boat, they've just lost all confidence in the process.

But if we can make sense and if we can do enough groundtruthing; these are smart people and they have intelligence and they can agree with us. If you don't take away such vast areas, I believe that it will go. I would be supportive of this and I think that the people in my area would be supportive of it.

MR. JOHNSON: I thought it was encouraging in Stacey's presentation that they did see some speckled hind and Warsaw grouper in the existing MPAs. We already are offering some protection to those species, and I thought that was good.

MR. HARRIS: I had an extensive conversation last night with Ralph Delph, who was on the Expert Working Group, and explained the background of the lawsuit and the things that are going on. His recommendation to the AP was that we consider closing commercial fishing, since commercial fishing in that 240 and beyond accounts for 90 percent of the fishing activity. That was his suggestion that he wanted me to bring up to you.

MR. SMITH: I think maybe you should rephrase that. Ralph was a commercial fisherman for many years in the Keys, many, many, many years in the Keys. I don't think that is going to go, but I just thought I would add to that.

MR. JOHNSON: No; I think we need to focus on the positive things we can do and not focus on things like that.

MR. COLE: Gregg, there is a section in here dealing with Oculina. I am going to suggest, if I can, that we modify the wording on this. I don't know of very many people in the room that were around during the Oculina War, but that war was fought over something other than fish. It was a shrimp and a coral issue. It wasn't a fish issue.

To use the wording that is in here I think kind of undoes the positives that area, one, was set aside for; but, two, certainly doesn't help us with the other areas. It clearly was an area that were not set aside for fish. Gregg, I think we need to restructure that statement into a more positive statement if we can. We don't need to rile up people unnecessarily.

MR. JOHNSON: Just for the group, Bill, where are you referencing?

MR. COLE: Help me, Gregg, you know where it is.

MR. SMITH: That is funny; I spoke to Gregg this morning about it and we were talking about the evaluation of the Oculina Bank. The comment he made that really we haven't seen the progress that we would like to see out there – I think it was yesterday that he was talking about that – I think that is another thing that we're up against is that evaluating these areas once we make them and then seeing what kind of progress we get, it is very difficult.

MR. JOHNSON: It is difficult, Rodney, but I think we have to always be mindful of the fact that research is limited in these areas. When we have an area like Riley's where there is a lot of work that has been done; it is a lot easier to see the benefit. Just because we don't see a benefit from the few times we have a research vessel on station, it doesn't necessarily mean that there hasn't been a benefit.

MR. COLE: I'm sorry, on Page 2 at the very top; Regulatory Amendment 17 (MPAs); Item E under Number 2 where it says little or no benefits can be – I think we can reword that just a little bit to help our case here and turn it into a positive statement, because, as I said, the Oculina was not a fish war. If you think doing some MPAs have been difficult; that one was years.

MR. DeMARIA: I just want to say something about that Oculina Reserve. It keeps being brought up as a reserve that was a failure; but you've got to look at the area. The habitat is gone. Now what killed off the oculina is kind of debatable; some people say the rock shrimpers did. I'm not sure because about the same time that all died off, there were huge fields of oculina inshore 90 feet around just north of Jupiter, Fort Pierce; I forgot where.

Bill Parks actually has a video of it; healthy, big fields of oculina. That all died off. That wasn't rock shrimpers. That was some kind of water quality or whatever, the water coming out of Okeechobee. But if the habitat is gone in an area, it is doubtful that the reserve is going to be as beneficial as it could be. The big fields of oculina on the Oculina Reserve; much of that is gone now. That could be one reason it hasn't been a success like Tortugas.

MR. JOHNSON: Yes; but when we say it is not a success, I mean I've heard Chairman Hartig comment that he thought the gag grouper fishing was getting better in his area as a result of the Oculina Closed Area. Do you want to elaborate on that, Ben?

MR. HARTIG: Yes, Robert, some of these cold water eddies, when they get real cold, they push some fish – this is anecdotally. These are 35 to 45 pound gags. They come into the shallower water. We get about a two-day window on the fish before the water actually cools on the inshore.

We've been able to target some of these big animals that we don't see at any other time of the year and only see during these cold water pushes. The fish are coming from the deep water somewhere. The other spots that we fish in the deep water do not have the large numbers of grouper on them.

Just by putting it all together, our thoughts are that the fish are coming out of the Oculina. Scotty has fished them. Scotty has had some intensive catches from fishing those fish; and he does the same thing. The animals are huge; a lot of males in that catch. We haven't seen it as much in the last couple of years, but several years ago we saw it pretty frequently.

MR. JOHNSON: Thank you, Ben; that would be a great CRP project to tag some of these fish inside some of these MPAs and see where they do end up being caught. Anymore discussion? I know we have someone who wants to make a motion; so at this time they can feel free.

MR. DeMARIA: I gave the paper to Myra and maybe somebody can type it up. I'll just briefly explain why I did this. Obviously, the alternative approach is the spawning areas. I think the second part of it; I believe the council should retain the option of limiting fishing on fish other than just snapper and grouper and do it at a case-by-case basis. I think the Georgetown Hole, to think that you're going to prohibit all fishing, if we do it, choose one of those as a spawning area; to think that you're going to prohibit all fishing is not realistic; people with the marlin tournaments and all that.

But other areas for enforcement, like if one is established off of St. Augustine or Jacksonville on an elbow, a small spawning area; to limit all fishing on that would certainly ease enforcement. I think we ought to look at it at a case by case and not just say we're going to allow trolling in all of these for pelagics.

MR. COLE: I'll second his motion.

MR. JOHNSON: All right thank you, Bill. We have a motion. We need discussion on this, I'm sure.

MR. MUNDEN: I support the motion. After reviewing information that was presented yesterday, I think it would be the wrong approach to look at tweaking the MPAs and adding new MPAs. The thing that comes to my mind is there were several sites near Cape Lookout that were proposed as new MPAs.

It is troubling to me when the predominant species in those sites happen to be lionfish. We're going to be setting up MPAs to promote growth and protection of lionfish. The concern I have

about the alternative approach is in the Appendix A concerning site selection. There is not a whole lot of detail relative to how these sites will be selected. That is my greatest concern with going with this motion; but I do support the motion.

MR. FEX: Yes, I support the motion, the alternative. One concern that I had was the elimination of the spawning closure. I talked to a couple people around here. We know that we're reaching our gag quota already. All of a sudden you take those four months out; we're going to reach it even quicker. Then we're going to lose more dead discards as we already have for the last year. That would be one concern I would have as an alternative in the new approach; just to put that in you guys' ear.

MR. WAUGH: Just to clarify; that is something that the council could look at down the road. Assuming they adopt this alternative approach and were to get something in place to provide additional spawning protection; then that is something they may be able to come back and look at. I doubt they would include that in the scoping document and talk about making that change now. That is something that they could perhaps consider down the line some.

MR. DeMARIA: It would seem that if stock assessments are going to be done both inside and outside the reserves and there are more fish inside the reserves like we have in Tortugas; then that should result in an increase in your quotas, I would think.

MR. FEX: I am not disagreeing with you; I understand that. If our ACLs go up, yes, we can get rid of it. My concern would be though that we would lose that and then we'd be back at square one. That is all I'm saying; I don't want to lose fish.

MR. HARRIS: Would there be a transit provision for snapper grouper species on board the vessel?

MR. DeMARIA: Yes, you can't close these areas to transit. That is absurd, I believe. That is something that would have to be worked out. A lot of these things work where you've got your gear stowed below deck and your fish put away and then you can transit it. There has got to be some provision, I would think.

MR. JOHNSON: I think there already is a transit provision in place; and it is gear stowed, vessel underway. It has got some things that are required. I think that has already been taken care of.

MR. ATACK: To address Kenny's concern, I guess Item Number 6 in this alternative thing; could we just remove that from the document and not send that out there? Is there any reason to have that in here now? I mean, if you wanted to look at that down the road, then that could come up as a regular amendment down the road.

MR. JOHNSON: That's a good point. I think Jim's and a lot of our concerns are you take it out to scoping to the public, and they see that as a carrot dangling in front of them and then it never happens; they are going to think you were being disingenuous. We don't want to do that. Any more discussion?

MR. HULL: Just one; on Item 3 we discussed size of the closed area. I think that going out to scoping; again it would be made as small as possible to do the job, but right now they're seeing

the stuff that was already proposed as being very large. What is small as possible to them? It could be a real negative on that.

Of course, all of this is the beginning of the process, I understand, and how do you know how big we're going to need to make it? But, for instance, in the Riley's Hump area you have the acoustic identifying lanes of transit back and forth to the site, so that is going to probably come into play. Say that we have a perfect spot right off of Ponce Inlet and it is a no-brainer, it needs to be protected; but it is small, and so maybe it would be two miles this way or three, or whatever, 2 by 2, which is something that I envision is no problem for anybody to work around.

But then it could develop into where the scientist and people say these fish, how are they going to get to this site without being intercepted by fishing activity? It is kind of wide open at this point in your mind of how big these things are going to be and what is the next – you know, the more you know, the more you don't know where it's going.

It sounds really good, but the more you get into it the more questions are asked. As I say, to be accepted by the fishing community, which is what we need, I don't know, the issue about selecting the site and how big it is, is probably key to winning over confidence from the public, because selecting the site is a really big issue.

We don't have the data. We're attempting to find these sites now, but it is not easy. It certainly isn't easy. Then how big they're going to be is something that I think needs to be talked about. In this motion you're pretty much accepting everything in this alternative approach in the motion that we have in front of us with the ability to limit more species.

Which on a small area like that if they were, say, 2 by 2 or 3 by 4 areas; I don't know how this would fly with everybody, but personally I believe that you should have no fishing in it whatsoever, no trolling. If it is that small, the trolling community could live with it also just like the bottom fishing community. Then you would have a real easy time enforcing it if you didn't have any boats in there. If they are that small, you could do that. But I think the size issue and the location are two things that are going to really pop up as bothering people.

MR. JOHNSON: I think that is a separate motion, and we can talk about that in a minute; do we want to put some kind of size limitations? We can give the council guidance on what we consider a small. Someone might say, well, 20 by 20 miles is small, you know. We do want to give them some guidance on that.

MR. COLE: Mr. Chairman, the issue of public acceptance is beginning to creep back in here today. I really do not believe that there is anything that we can take forward, except go get them, is going to be publicly acceptable. The council might as well prepare itself to get beat up with whatever they take out.

I agree that sizes and location – I mean if you're taking away my fishing hole, I don't care what size you make it, it is my fishing holed; and it is going to happen. But the message that we take to the public up front has got to be that there are worse things, folks, in the future, worse, much worse if we don't do some things now. That message, if the public doesn't hear it, we're doomed for failure.

MR. JOHNSON: You're referring to an ESA listing I'm assuming that is much worse things.

MR. COLE: I can think of several.

MR. PHIL CONKLIN: I disagree with just eliminating all fishing. Like, for instance, the Georgetown Hole, I've caught fish there. I've trolled through there; I've caught fish trolling. The bait stacks up on the top of it during certain times of the year. You get the right day and the right moon, and you will see some blue marlin you never thought existed. Believe me, I've seen them. You get four or five shots an hour, 4 or 500 pound fish.

MR. JOHNSON: I understand that; and I believe there is a thing called a Type 3 MPA that allows for trolling during certain time periods. That is something that is attractive to me off St. Augustine. Our trolling season is January to the end of May. Anything we do to help law enforcement, they are going to be greatly appreciative of. Even if you went that route and said, okay, it is closed to all fishing from June 1 to December 31, anything like that; I guess that would be doable under this amendment.

MR. DeMARIA: I think just each reserve has to be a little bit different. In the case of the Georgetown Hole, if it is determined that it really is a fantastic place for spawning fish, aggregating fish, and the only way to get it is to allow some type of surface trolling; I wouldn't want to lose the reserve because we prohibited trolling and have that be the deal breaker.

There has got to be compromise in all these things. Some of them we could live with no fishing. I don't think on that particular one that it is going to go over with the public to have no trolling in it. Each one will have to be a little different, I believe, and looked at on a case-by-case basis.

MR. HARTIG: Jimmy, remember, as far as the sizes go; we're managing our stocks at a different level now. You all have experienced biomasses that you haven't seen in a number of years for most of the species. That is going to be what you see from now on unless something stupid happens. The fishery part is going to manage from a much higher biomass overall.

You're going to have a lot more fish in the water. The ability of these animals to get to these spawning areas and spawn is going to be increased just by the increased biomass that you have. I think you probably can get them a bit smaller and be more surgical in your approach because of the way that we manage now.

MR. SMITH: That is a good point; we're not where we were five years ago. It is hard to realize that sometimes when we sit in here, because we all look at each other that have been here and we're saying isn't this the same thing again? But it isn't, and we are getting a rebound; and so I think that was a really good point. When I talked to Gregg earlier today, it comes down to enforcement, monitoring, evaluation, and outreach. When we talk about compromise; I don't like that word compromise. It's not personal against anyone, but we need to find a way – and I think we're getting closer – to synergize.

When we use all the tools that we have and we use all the ideas; and when Phil says I know the spot where these 4 and 500 pound marlin come in, because the marlin knows where to eat; and then I see Kenny over there say, well, I brought my chart with me to show you where these places need to be right there; now we're getting somewhere, because that isn't compromise.

Compromise is one and one is two, but synergy, of course, is one and one is 20. I think we're getting closer to that and it's been a very interesting path there.

MR. JOHNSON: On that note, if there are no other comments, we can go ahead and vote on this motion. **Want to read the motion? I'll read it: recommend the council take the alternative approach to scoping in August, regardless of Regulatory Amendment 11 lawsuit outcome, and preserving the ability to limit fishing on more species other than just snapper and grouper species. All in favor; any opposed? The motion carries**.

Now we can talk about does someone want to make a separate motion or at least give the council some guidance on what we consider "small". I think that we do need to have some kind of reassurance that it is not 10 by 10.

MR. ATACK: Gregg, we've got the council meeting in June. I mean, a lot of this work has been done on MPAs, the bottom, you've got a lot of work already done that you're going to move from 17 over to this alternative amendment; so come the council meeting in June, are you going to have proposed sizes and areas for this alternative approach, because it is going out for scoping in August? By August, for scoping I assume you're going to have these areas nailed down where they might be and what size they might be? What do you think you'll have done by when?

MR. WAUGH: I think we've got to back up and remember what is scoping? When you go out and scope, what you do is you say you have a problem and you're asking the public to offer their suggestions for how to approach it. That was one of our biggest concerns with the approach taken before. What we have in Regulatory Amendment 11 is almost a public hearing document. You're going out and you're saying here are the areas we're thinking of closing; what do you think? Well, that is not scoping; that is public hearing. An additional benefit of the alternative approach is it backs us up and it says, hey, what we're taking out to the public is here is an approach.

The problem is speckled hind, Warsaw grouper, concern for spawning areas and aggregations and their habitat; that is the problem and we want to protect those. Here is a general idea of a process that is outlined here in this alternative approach that we would use. That is it with not much other detail, because what you want to do at scoping is give the public a chance to feel that they can really comment and offer their suggestions.

Then when we come back after the scoping, then that is when you start looking at, okay, what sites were suggested; what input did we get on how to site them, how to size them. Then the committee and council work on coming up with some alternatives. You all will probably have another shot at that before anything goes out to public hearing.

What you described, Jim, in terms of that level of detail would be what they would approve to go out to public hearing. The schedule would call for, yes, they would do that in January. You all have a November meeting so you would get at another shot at this. You would get to see what came back from scoping, what the council's thoughts were, and then give us more guidance to move forward on some of these specifics.

MR. HULL: Gregg, that is very helpful to put us back to understanding that. I think that the outreach that the council does and that Kim does for these special SMZs out to the public prior to scoping is really going to have to be kicked out there good so that they understand that this is something different.

It is basically a whole new idea, a whole new approach; other than the MPA, which is the approach that none of us feel is going to work right now. That is helpful in that you said all the other details; we've got to get input from scoping before we can develop anything further and make sure that people understand what we're talking about and that they go and they get involved. Yes, thank you.

MR. WAUGH: One other point to make; another big concern we had with the Regulatory Amendment 17 approach is we were already going out with it's a solution. We're still finishing up our scoping for the snapper grouper fishery. Amber and the other staff still have meetings to do in Georgia and one more here in South Carolina.

What this does, too, is it gives the council a chance to start working on what the vision is based on all of those visioning inputs; and then what we do, too, is get some more input on that through this scoping process. That is another benefit of having it be more generalized, and it gets more input before we start developing a solution. This will fold into the council development of an overall vision for the snapper grouper fishery.

MR. DeMARIA: I think if you went to the scoping meetings with some type of presentation similar to what John Hunt gave and Will Heyman and maybe just a very brief kind of biology lesson on these fish how they spawn; show the video of these fish aggregating and going up in the water – and most fishermen don't know this – just explain how can we replicate up in this area, Georgia, the Carolinas, North Florida what we've seen in Belize and Tortugas. That is kind of what we're after. But if you just come with these mathematical formulas and other BS, it just turns people off. The video, I can relate to it; the formulas I really can't and I think most fishermen are in the same boat.

MR. ATACK: Gregg, does that mean they will make an announcement saying that the Regulatory 17 is dead; and then we're going to start this new thing as far as outreach to the public to let them know the MPAs are not being pursued or does that just kind of die a slow death or what happens there?

MR. WAUGH: Well, your recommendations will go to the committee and council for their June meeting. Right now their current position is to take Regulatory Amendment 17 out to scoping; and you've got what that document looks like. We will, based on your guidance, prepare another scoping document that outlines this alternative approach.

At that time, if they choose that alternative approach, then we would get guidance from them; and I would suspect that Regulatory Amendment 17 just goes on the shelf and we don't use that anymore. That will be a decision point for the council to move away from MPAs, as such, to these spawning SMZs. Regulatory Amendment 17 would just go on the shelf; but that is a decision the committee and council will make in June. After that, we'll get the word out on whatever their decision is.

MR. COLE: I think Jimmy stated it correctly, Gregg, I appreciate that clarification of scoping. I have a great familiarity with it. I kind of forgot what you just said and how simple it really is in some respects. But given that; I think that a couple things that I would like to see included in the scoping document are these deflation drop-downs and so forth.

I will bet that we'll get a hundred different ways of doing it when we go to scoping. Just off the top of my head from my list that I had; I would like to see the concept of habitat improvement taken to scoping, particularly habitat improvement in MPAs which we heard about yesterday particularly from South Carolina.

I'm sure that if we pause a minute, that many of us have got some other things that we would like to ask the public to give us some thoughts on. I think that is what we can best tell the council today what we think should be included in a scoping document. The specifics of it have to be worked out. Once we see what the document looks like, then we can massage the sizes and the when's and the where's and all that sort of stuff.

MR. JOHNSON: Thank you, Bill. I think the artificial reef is already in the document; but if somebody wants to make a motion concerning descending devices, they can.

MR. PERRETT: I would be glad to do that. I guess if you look at the document, it has got nine points on it. I guess my motion would be that we would add a Point Number 10 that would include considering the use of descending devices as another tool to support this issue. You guys can help me on the wording on that.

MR. JOHNSON: Is that okay, Jack. We have a second by Richard. Discussion.

MR HULL: Maybe you might want to add to help reduce discard mortality; make sure that is in there.

MR. JOHNSON: Is that okay with the maker of the motion?

MR. PERRETT: I'll accept that, yes.

MR. PHIL CONKLIN: What is the depth that you are going to call deep water, because I've caught fish in 90 feet of water. They come up and their belly is blown out of them, out of their mouth.

MR. JOHNSON: Yes; and I don't see a depth requirement attached to this motion. I think the intent is to just educate people in the use of these devices so they just have them on board; and when they do catch a large fish that has got evidence of barotrauma, they use the device to aid in releasing them.

MR. SMITH: I completely agree; but then the education outreach side, that part of me comes out and how does that get included in this? Then I'm looking at what's happening with – we took some really bad back steps with the venting tools. I've got Jimmy over here, I completely honor his opinion, he says, "We do it all the time and we're catching those red snappers back." Then you hear in the general public, once they grab something like they've heard now that those venting tools don't work; it really put egg on our face, not necessarily here.

I think it was in the Gulf more. I am wondering is there some component, maybe not in this motion but another motion that says how do we do the outreach part with the recreational anglers, so they know how to use it properly. At the same time, heck, teach them how to use a venting tool properly, because they are doing more harm than good. I know I'm a little scattered on that, but those are my concerns.

MR. JOHNSON: I think the general public has become more aware of these devices. I believe I've seen four or five different ones in the last month. They are obviously out there and there are a lot of people already using them.

MR. HARTIG: I would suggest that somewhere in this that you suggest that the council – really suggest and not suggest; demand that the Science Center do the research on descending devices; because without the research, we're never going to answer the questions of these things do they really work?

Especially for the two species in question that we're trying to save, Warsaw and speckled hind that we're trying to reduce mortality on, it would be critical to have that information. Down the line when you have people trying to list these species, we would already have the research saying that we can release some of these animals and we've reduced the discard mortality. Somehow demand that the Science Center do the research on descending devices.

MR. JOHNSON: Right; and that would be made in a separate motion.

MR. FEX: Presently Chip Collier is starting the descending devices. Actually, Wally went out a couple of trips a couple weeks ago with grouper out in deep water, and they're already using them. I was contacted by a girl, Kathy; she is going to be going out with me once the grouper season opens to start testing these descending devices. It is already in the works and it is done by the state. I hope the feds appreciate it or take it in consideration.

MR. JOHNSON: Yes; we've used them on my boat with state people with large grouper as well. All right, if there is no other discussion on this motion, we can go ahead and vote on it. **The motion reads add Number 10 that would include considering use of descending devices to aid in the release of deep-water species and help reduce release mortality. All in favor; seeing none opposed, it carries, it is approved.**

MR. DeMARIA: I think that under purpose and need in this document; do we need to choose one of these options, Gregg?

MR. WAUGH: That would be helpful, yes.

MR. DeMARIA: I think it makes the most sense to choose Option C in light of what we just recommended; the motion before this. **I would like to make a motion that the AP choose Option C.**

MR. JOHNSON: Seconded by Jack. Any discussion? Does everyone have the document so they could review Option C, Page 8-1? I will give you all a moment to review that before we vote on it.

MR. WAUGH: It is up on the screen, too.

MR. JOHNSON: Has everybody had a chance? **Okay, we'll go ahead and vote on the motion. All in favor; seeing none opposed; it is approved.**

MR. FEX**: I would like to make a motion to remove Number 6 as one of the things in the document, the alternative approach talking about the spawning closures**. The reason is with the points I had made earlier.

MR. JOHNSON: That is seconded by Jim. Yes, we'll have a discussion on that.

MR. HULL: There is some information in there that if you took away the January through April spawning closure – okay, that is taking that away; but there is other information in there, existing MPAs, Coral HAPCs provide spawning protection and reduce bycatch. If the new approach is implemented, then the council could consider reducing and eliminating.

Instead of saying the four-month spawning season closure for grouper; it could consider lots of things and not just that. It could consider opening up other areas. I think that rather than eliminating the whole thing, which I would be opposed to, would be to maybe change it. Recommend if you want to eliminate, hey, we may take away the grouper closure if this goes through; you might just say, well, hey, this could possibly provide enough relief that we may see some real improvement in other areas or something.

We may not have time to go through all of that; but I think to eliminate the whole thing is something – but maybe we could continue to include the information you are giving here, the existing MPAs. The Coral HAPCs provide spawning protection already and are reducing the need for all of these massive closures; just a thought.

MR. JOHNSON: I think the concern from some of the AP members that I've heard is if this goes out to scoping, they don't want the public to think that they are going to get a year-round grouper fishery as a result of these SMZs, because that would be disingenuous.

MR. ATACK: A lot of things can happen down the road and we're not mentioning them all in the document. ACLs could increase. We could have year-round fishing. There are lots of things that could happen. I just think it kind of muddies the water by having this in here, because right now we're not considering removing this January through April spawning season closure.

If it gets to a point where that could happen; that would be a whole 'nother amendment to do that to make that change. I just think if you remove it from the document, it makes it cleaner. The document is long enough and it is not something that we're looking at proposing right now, anyway.

MR. JOHNSON: Well, to Jimmy's point, though, it does say the council could consider. It doesn't say they will consider; but it might be misinterpreted by the public.

MR. SMITH: Well, we reach our limits every time anyway with these closures already in place for the spawning season, right, Jimmy?

MR. HULL: Yes. Gag this year; the closure date on gag this year was in October. We're catching our ACL before it goes into spawning closure.

MR. ATACK: Yes, but look at the red grouper and the scamp; we're not those. You're just looking at gag. There is more than gag in this spawning of grouper complex.

MR. HARRIS: Like for the recreational sector; we haven't even reached 50 percent of any of our grouper ACL since the closure went into effect.

MR. SMITH: I'm for the motion. I just want to make that clear; I'm all for protecting these fish during their spawning season. I think that is what we've been working for, Jimmy. I understand that it does say they could; and I just think that it might send the wrong message. I'm with that, too. I understand your point, though.

MR. DeMARIA: I think what we should be working towards is year-round fisheries for both sectors. But to come to the public with something like this actually printed out; in a year or so the "could" will turn to "would"; and didn't the council reduce the four-month closure? Although I think we should be working towards year-round fisheries; it might be a mistake to come out and actually stating this here. I know how it gets twisted around.

MR. HARRIS: Thinking back, I want to say it was two meetings ago, we actually did move and make the motion to rescind and shorten up that four-month closure and also to increase the bag limits right here at our own AP. We talked about that.

MR. JOHNSON: I think we talked about it for the recreational sector; you are correct.

MR. SMITH: What Don just said; I think that is the way it should read in here is that we're working towards year-round fishing for both the commercial and the recreational sectors. I don't know if that is a motion that would be made, and probably not, but that would read really nice. That is what they want to hear. It is really the truth across the board, I believe.

MR. JOHNSON: Well, I think that could be maybe the message that is taken forward, but maybe not necessarily print it. All right, if there is no other discussion, we can go ahead and vote on this. **The motion reads to remove the January through April spawning closure for shallow water grouper, I'm assuming, from the document. All in favor, all opposed. The motion is approved.** Are there any other guidance issues on this document you want to give the council?

MR. PERRETT: Yes, I would like to make a motion – again, Ben, help me with this – to strongly recommend that the council direct the scientific group to do a study on the descending devices; specifically for the Warsaw grouper and speckled hind I think initially.

MR. STIGLITZ: Jack, I would like you to make it for all snapper grouper species. I don't think we ought to just do it for speckled hind and Warsaw. I think every fish that we work with; I think every fish ought to be on there.

MR. PERRETT: I'm fine with that, so you can add that.

MR. JOHNSON: And the motion is seconded by Richard. Anymore discussion on this one?

MR. DeMARIA: Shall we add at various depths or is that just kind of obvious? Obvious, okay.

MR. JOHNSON: **Okay the motion reads strongly recommend the council request to the SEFSC conducts research on descending devices for all snapper grouper species. All in favor. The motion is approved.** Anything else? Okay, we're going to move right on into Amendment 29. We'll let Myra give us the overview.

MS. BROUWER: This is Amendment 29 to the Snapper Grouper FMP. This is an amendment that was taken out to public hearings earlier this year; so we're kind of further along in the development process. The council looked at it in March. They still have to select preferreds for some of these actions; so that is where the AP's recommendation would come in handy. I'll walk you through each one of these actions.

In June the council will look at this again, look at your recommendations, select preferreds where they haven't, and then approve all actions. Then, if needed, we'll conduct whatever analyses are left and then either wait until September to approve it for submission or it could happen after the June meeting if they feel that the analyses are complete. That is where we are on this one.

This is the one that is going to update the ABC Control Rule to include the methodology that the SSC has recommended for establishing acceptable biological catch for species that don't have stock assessments. We call them ORCS, which means "only reliable catch stocks". It also contains management measures for gray triggerfish. Your discussion document that you have in your briefing book has a little bit of background. It has a purpose and need that the council approved at their March meeting.

It has a little bit of explanation on how the ORCs approach came to be and what it means and how the SSC utilized it. Briefly, for those of you who are not familiar with it, the ORCS approach is the Level 4 of the ABC Control Rule. This is for species that have reliable, decent landings information, but that have not been assessed.

What the SSC proposed in order to calculate the ABC is to, first of all, determine a catch statistic. They settled on the maximum catch – the maximum landings over the period 1999 through 2007. They did that because they felt the median was not adequate to represent the fluctuations in landings that are common with these species.

They chose those years because those were the same years that were used when the council developed the Comprehensive ACL Amendment, which is when they initially established ABCs for snapper grouper species that were not assessed. Another reason they chose that time period is they didn't feel like they could go past 2007, because that is when the economy took a turn for the worse. They felt using those landings was going to influence the catch statistic.

Then they spent a lot of time developing a methodology to assess or to estimate each species risk of overexploitation. There is an appendix that is part of the document. It is really extensive so I didn't even include it in here. If you are interested, it does detail all the various criteria that the SSC used in order to recommend a risk of overexploitation for each one of these species.

What they did is come up with this little scalar scheme. For species that are considered to be under a low risk of overexploitation, the value that the SSC assigned to them was 2; moderately low risk, 1.75, moderate risk, 1.5, and moderately high risks, 1.25. You will see these numbers again in just a minute. I just wanted to make sure that you knew where they were coming from.

These two first items, the catch statistic and the risk of overexploitation, have been recommended to the council by the SSC. The council doesn't really have to do anything other than consider it and discuss it. They actually made a motion to approve this table that you see up on the screen. What they do have to do is determine the risk tolerance level.

Another way to think of this is the level of management uncertainty that the council is willing to take for the management of each of these species. That is what we're going to do in this amendment. The SSC did recommend – they had some sort of example levels that the council could consider.

The first action is basically to just go ahead and update the control rule to include this methodology as part of it. This is what the control rule looks like. There is Tier 1; and then it has Steps 1 through 5. It explains how you would assign values based on these criteria for each species. Tier 1 is for species that have a stock assessment.

Tier 2 is the uncertainty characterization. Again, you have Steps 1 through 5. Step 3 is the stock status, and that is worth 10 percent. Then there is the productivity and susceptibility ranking and the risk analysis. That is all Level 1. We go into Level 2; those are unassessed stocks for which there are reliable landings and life history information.

Level 3 deals with also unassessed stocks, but those that have enough information to conduct something called depletion-corrected average catch analysis. Then finally Level 4 is the unassessed stocks that don't have the data that are necessary to conduct these two other analyses that are described under Levels 2 and 3. This is what we are changing here. This is the existing control rule, and now here is the preferred alternative.

You will see that Level 4 here; basically the only thing we're changing is this sentence here that says apply ORCS approach using a catch statistic, a scalar derived from the risk of overexploitation, and the council's risk tolerance level. That is Action 1. There are really only two alternatives; and we've included an explanation of why that is to satisfy the NEPA requirements to have an adequate range of alternatives. The preferred, of course, is to go with what the SSC has recommended.

Unless you have questions on Action 1, I don't think the AP really needs to weigh in on it. If you have a question, like I said, I can explain it. Action 2 then takes that ORCS methodology and applies it to the species for which it is applicable. There are four alternatives for this one, including no action.

Alternative 2 deals with species that were assigned a risk of overexploitation that is low. It just so happens that is only bar jack; there is only one species in that category. The tables that you see on the screen are all the same, so I'm going to just explain this one here. The second column shows you the catch statistic, which is like I said the highest landings between '99 and '07.

The next column corresponds to the risk of overexploitation; and for bar jack that is a scalar of 2. Then the risk tolerance scalar; this is where the council gets to choose. For this Subalternative 2A, that would be 0.75 or 75 percent. You multiply these three together, and you get your new ABC. That is what is shown in this column here.

Then for comparison purposes, we have what the current ABC is and what the difference between the two is. That is how all the tables are structured. For bar jack the council has chosen a risk tolerance scalar of 0.9 or 90 percent. You take that catch statistic; multiply it by 2 and take 90 percent of it; so just step down 10 percent, and that gives you your new ABC.

For bar jack the difference would be an increase of 37,000 pounds and some change. Then comes Alternative 3, which deals with species that have assigned a moderate risk of overexploitation. The scalar for that category is 1.5. There is a handful of species in there. All of them would show an increase in the ABC for all the subalternatives, I believe.

Subalternative 3A uses 75 percent as the risk tolerance scalar. Subalternative 3B, which is the council's preferred, uses 80 percent. Here are the differences in ABC. For some of these you can see they are pretty substantial. For gray snapper, for example, the ABC would increase by 451,000 pounds. Then finally Alternative 4 deals with species that have a moderately high risk of overexploitation. The scalar there is 1.25.

Subalternative 4A is the council's preferred, so that would just apply a risk tolerance scalar of 0.7 to those five species. This one includes gray triggerfish. The current ABC for gray triggerfish is 626,000 pounds. It would go up to 717,000 pounds, so that is a difference of about 90,000 pounds under the council's preferred. They had a choice of being more conservative. Subalternative 2B uses a 75 percent risk tolerance scalar and 4C applies a risk tolerance of 0.5.

This is actually the only alternative where there is a decrease for a couple of species. For rock hind there would be a decrease of 460 pounds; and for white grunt there would be a decrease of 30,000 pounds in the ABC. That is Action 2. I am not sure if the AP wants to weigh in on the council's preferreds.

MR. JOHNSON: How about it folks; any thoughts on this?

MR. PERRETT: I've got a question. On the ones they are reducing, are the new targets below the current ACLs? Do you know that, Myra, off the top of your head?

MS. BROUWER: There is a table further down that shows the ACLs. Right now this is just the ABC; so for white grunt you see that, yes, the ABC would be reduced from the current. The current is 674,000; it would go down to 643,000. The ACLs would be reduced accordingly. The allocation is not changing; so you are still having the same percentage of the ABC assigned to the commercial and the same percentage to the recreational.

MR. PHIL CONKLIN: Didn't somebody mention the other day here, the day before yesterday that there were two or three species of white grunt? You are trying to decrease things, but is it for the entire area or is it just for targeted areas?

MS. BROUWER: I'm glad you brought that up, Phil. There was an issue with white grunt to where the SSC actually divided the stock into two subpopulations north and south; and they applied a risk of overexploitation for each of those that was separate, they were different; but right now we only have one ACL for white grunt.

The council decided to just take the most conservative approach as far as the management uncertainty for that species and then go back to the SSC and request that they give the council guidance on whether there needs to be two separate ACLs for that stock. The SSC is going to take this issue back up at their meeting later this month and come up with some guidance on that. But, yes, you are correct.

MR. PHIL CONKLIN: This is for the Keys fishermen; what is the average size of the white grunts that you guys catch?

AP MEMBER: Three quarters of a pound.

MR. PHIL CONKLIN: Three quarters of a pound? The other day when we unloaded a boat, he had a couple of grunts on there that weighed five pounds; very nice fish. They are healthy; but you've got to draw a line in the sand somewhere for this one.

MR. DeMARIA: Are you sure they weren't margates? Okay; that is big!

MR. ATACK: Maybe you can explain, Myra, I guess some of the thought process. When you look at these numbers, the bar jacks, you're talking 34,000 was the maximum historical catch and we're doing an ABC of 62. Gray snapper is like a million maximum historical catch; and we're talking about a 1.25, which is 25 percent above that. I just don't understand. If the maximum historical is some number, how can we come up with an ABC which is 25 percent higher than the most that has ever been caught?

MR. JOHNSON: I can address that; I was involved in this whole process. As you all know, regulations have changed severely in the last five or six years. Just because you had a maximum catch of a species six or seven years ago, it doesn't mean that is what the stock could take. I don't know if you're following me, but what this says is as people's behavior changes, there are some stocks that probably weren't utilized as heavily as they could have been.

I think gray triggerfish is probably a perfect example. A lot of fishermen think there are more gray triggerfish, they are everywhere and they catch plenty of them, yet they are held down by this restrictive ACL. Until you have an actual stock assessment on these species, this is just a way of taking into consideration. It may not be a product of this is the most they ever caught; it is the most they ever caught just because they weren't really fishing for them. Does that make sense?

DR. ERRIGO: I'll try to also add a little bit. There are several things going on with these species especially when they moved from the decision tree, which were the third highest landings to this ORCS approach. The ORCS approach; there is more information going into the ORCS approach than there was in the decision tree.

The more information you have, that allows you more leeway; so that is the first thing. The higher up on the tier matrix you go for your ABCs, the more leeway you can allow yourself. Also, when you are setting a limit; we know these fish are – a lot of them are not heavily targeted species and there is a lot of variability in their catch.

The idea behind the ORCS approach is to allow the variability to continue over time and to allow the average catch to continue over time with the variability without cutting it off. In order to do that, you need to set your limit, which you cannot cross, somewhere above the variability in the landings. That is why the limit is set so far above where you see the landings.

That is why they took the max landings and multiplied by a number to make it higher. That is why the ORCS approach does that; to allow the variability to continue. Also, we had no stocks that fell into the high risk of overexploitation. As long as they are in the moderate or low categories, the ORCS approach allows for either leaving the stocks to stay where they are or allowing some increase in the landings. That is why they've either set the ABC at a level where there can be some increase in the landings; so that is another reason why the ABC is set above the catch limits.

MR. JOHNSON: Thank you, Mike, for that clarification. Also some of the more important stocks that we see on here are scheduled for stock assessments; and then they will be removed from the ORCS method, correct?

MR. ERRIGO: In fact, gray snapper is on the SEDAR schedule for 2016, I think. White grunt I think is there for 2015; and scamp is also on there for 2015 or '16. There are several species that are on the SEDAR schedule. One other comment about white grunt was there was some discussion about these two separate populations of white grunt, perhaps two separate stocks.

They actually did say that the northern stock, so to speak, seemed to be healthier than the southern stock; but they couldn't decide where exactly it was cut off and all this and that; all the other detailed information; so that is why nothing ever came of that. That is why we're still left with one stock.

MR. FEX: Mike, you might want to stay here for this. Will you switch it to Alternative 4 please? Okay looking at this; I look at the risk of exploitation is the same across the board, tolerance. Why are some increasing and some decreasing? Is it the loss of knowledge of their spawning or their information? I don't understand that.

MR. ERRIGO: That had to do with how they were evaluated in the decision tree. Some of those stocks were not just third highest landings across the board. Some of them, they used like the median or something like that, so you'll see an increase; and then some of them they used the third highest. Then also the risk tolerance scalar, the 70 percent is bringing it down enough and some of the stock – which one was the one that is going down – white grunt, I think there was a some kind of spike in the landings, which made like the third highest really high, so when you apply this is comes down lower.

Rock hind; I can't remember what the trend looked like, but it has to do with what the trend looks like and what the highest landings are in the time period. Then when they were doing the decision tree, they included 2008, which they did not include here. That decision was made due

to – they discussed about the economy and decided in this round to not include 2008. That might have something to do with it. I can go case by case, but it would be a case-by-case thing. For the most part, they should go up; but those specific cases, it is probably just something funny like that; something about how the landings fell.

MR. HULL: This entire approach was developed by the SSC?

MS. BROUWER: No; there was a workgroup that was composed of – there were a couple of members from our SSC and from other SSCs around the country; and they developed a technical document, NOAA did, with a methodology that the SSC then applied and tweaked a little bit to come up with the ORCS approach that would be adequate for the stocks in the South Atlantic. That is how that came to be.

MR. ERRIGO: Like the numbers, the scalars and the catch statistic were decided on by members of the SSC along with members of the APs, and some of the council members were there. There were industry representatives; there was a whole working group of people, not just SSC members, because they needed a lot of input from industry to, first of all, to rank the stocks, to put them in their categories, the risk of overexploitation categories and then to figure out what kind of statistics to use.

Especially for the ranking of the stocks and each of their overexploitation categories; they needed a lot of input from industry and outside sources. It was a big working group of people that did that.

MR. HARRIS: Personally, I'm always a little skeptical when you get a bunch of scientists sitting around talking about unknowns and then trying to put hard fast facts to things that they can't prove, but it is just statistically something. I'm just curious – and perhaps somebody from council, since you all are here can explain to me – because I'm looking at the Subalternative A and the Subalternative 4B; and to me 4B seems to make more sense than 4A, unless I'm just not seeing something.

MR. JOHNSON: Does anybody from the council want to tackle that?

MS. BROUWER: Basically the council, if you look at the whole action, they decided, okay, let's step down 10 percent for species that are under low risk, so that is the bar jack; and then step down 20 percent for the medium and 30 percent for the moderately high. They just went 90 percent, 80 percent, 70 percent. The difference between A and B is just 5 percent. It is really not that big a difference. They could have gone as far down as stepping down 50 percent. They had that choice with Subalternative 4C.

MR. HARRIS: The reason that I bring – oh, go ahead.

DR. DUVAL: No, definitely finish what you were saying and then I will probably be able to add more productive input.

MR. HARRIS: As I'm sure many of us here at the table had conversations with Terrell Gould, who is not here with us, he was particularly interested in the gray triggerfish situation. I've been

kind of waiting for it to come up. Maybe I just don't understand how this is going to impact his fishery going forward as this plays out through the rest of this amendment.

DR. DUVAL: Specifically to gray triggerfish and any species that is considered in this amendment; once they go through a full assessment process, they will be removed from this list. Gray triggerfish is going through Take 2 starting in August of this year. Unfortunately, as Myra mentioned earlier, I think there are a lot of problems with the aging of the fish.

Spines are used; it is notoriously difficult to use spines to age fish, so they had to kind of go back to the drawing board on that one. Once that gray triggerfish assessment is complete, that will be the basis for the ABC recommendation that is made by the SSC. It is highly likely – well, no, I'm just thinking about the timing of this.

We're slated to take final action in September on this amendment right now, I'm guessing. Assuming that happens, Rob, and just given how long it's taking for amendments to go through the Notice of the Proposed Rule and Notice of Availability of the amendment for comment; I would guess that it would be close to mid to end of 2015 before what you see in this document would be implemented. Gray triggerfish is scheduled to be completed – Mike, if it starts in August of this year, it would be probably end of 2015 that the council would get some recommendations, maybe?

DR. ERRIGO: Yes; so this might actually go into place and be in effect for a short time before you implement a new ABC for gray triggerfish from SEDAR 41. It would be a very short period of time that this ABC for gray triggerfish will be around, and then SEDAR 41 will be there. Then you guys will probably implement an ABC from that; and that will go into effect in the beginning of 2016.

DR. DUVAL: Rob, just one more thing I would note is that the current ACL for gray triggerfish overall took a little bit of a decrease when Regulatory Amendment 13 went into place, which was updating everything with a new MRIP methodology and estimates. Dr. Cheuvront worked on that particular amendment.

I do recall that was one of the species whose ACL was decreased, wasn't it, Brian, gray triggerfish when Regulatory Amendment 13 was moved forward. This approach actually gives some of those fish back, a little bit; but regardless, once any one of these species for which this approach has been applied goes through a stock assessment, it will be removed. That is the basis for any catch level recommendations. I hope that helps.

MR. JOHNSON: Yes, I think we need to remember this is just a stepping stone. This is just a way to handle unassessed stocks until they can have a formal stock assessment. The hope for the future is there is not even anything in ORCS.

DR. DUVAL: Again, Mr. Chairman, if I might; it doesn't even handle all of the unassessed stocks, because there were a number of stocks for which the SSC and the ORCS Workgroup did not feel even that the catch information that we had was reliable, which is why it is called only reliable catch stocks information. There were probably a dozen species or so that were removed from that list.

MR. ATACK: Yes, since the rest of you are concerned about Gould, this approach, if you follow it on through, it is going to increase the recreational ACL about 50,000 pounds, which is about a 16 percent increase over where they are now. Like she said, it is going to be one year or so; because once the assessment is done, then there will be an ACL changed again based on that stock assessment.

MR. JOHNSON: All right, do you want to give the council some direction here? Do you want to choose a preferred or another one? Do we need to do that, Myra; would it be helpful?

MS. BROUWER: Sure, you can express support for what the council has chosen or suggest that they reconsider their current preferreds.

MR. HULL: I would be willing to make a motion for the AP to approve the work that the SSC and the ORCS Committee and the council has done and recommend their preferred.

MR. JOHNSON: Seconded by Bill. Do we have any further discussion? Seeing none; all in favor – well, I will let Myra finish typing. Okay, there is the motion. **All in favor; seeing none opposed, it is approved.**

MR. HARTIG: One thing, Robert, you mentioned a stepping stone; and the stepping stone that is even more important, because this is just one way that we can do these data-poor stocks; and there is a lot of work being done on other ways in the future that we can look at those. This is a progression in the chain as we move forward and stay tuned for the next time we do it.

MR. JOHNSON: Yes; and there was a lot of work that went into this. It wasn't just one one-day meeting or something. It was lengthy.

MS. BROUWER: Okay, moving on to Action 3; this is an action that the council added to the amendment in March. They have not looked at the analyses that have been conducted thus far. They are going to take their first look at it in June. This action establishes the ACLs for the species that are the subject of this amendment in Action 2.

Alternative 1 is to leave it the way it is where the ACL is equal to the OY equal to the current ABC. Alternative 2 would put the ACL equal to the OY equal to this proposed ABC as presented to you under Action 2. Alternative 3 would put the ACL equal to the OY equal to 95 percent of the proposed ABC. Alternative 4 steps it down even further to 90 percent and Alternative 5 to 80 percent.

This is a range that the council has to choose from. They instructed us to add this alternative in March, and they did not specify a preferred. Thus far, for all snapper grouper species that have ACLs and ABCs, the council has chosen to consistently set the ACL equal to the ABC, so they have chosen not to take any kind of a step-down for the ACL.

MR. JOHNSON: Do you guys have any comments on that? Do you want to give the council any guidance on this one, any alternatives that you like?

MR. ATACK: I just have a question. If we approve these ACLs equal OY equals the current ABC; when you do your stock assessment later and you get a stock assessment; does that mean

the ACL will equal to OY equal to ABC or does that come about differently once you have the stock assessed?

MS. BROUWER: The stock assessment has nothing to do with the ACL. The stock assessment allows the council to establish an ABC. The council always has the choice to step down from that ABC if they so choose. They just simply haven't chosen to do that yet. It wouldn't really affect – you know, they can always go back and say, well, for this particular stock, we feel that maybe we need to be more conservative and we need to set the ACL at 80 percent of the ABC, as an example.

MR. ATACK: Just for clarification, when they do the stock assessment, then that is when they determine what the current ABC should be?

MS. BROUWER: Correct. The table that you have on the screen shows the current commercial and recreational ACLs and the ACTs for the unassessed species in this amendment. At the bottom, you were talking about gray triggerfish, currently the commercial ACL is 272,880 pounds; and the recreational ACL is at 353,638 pounds.

Then if you move further down, we have several tables in here that show you what the ACLs would be under the various subalternatives in Action 2. The first 3 columns on this table show you what those ACLs would be with the preferred Subalternatives 2B, 3B, and 4A if the council chooses Alternative 2 under the ACL action.

So if they stick with what they've done so far and set the ACL at the same level as the proposed ABC, that is what these numbers would look like. Then the table also has to include what the numbers would look like if the council were to choose a different subalternative under Action 2. The next series of columns over here would be if the council chose Subalternative 2A under Action 2, and so on and do forth. This is half of the table here; and it continues further down. There is a table for each of the subalternatives in Action 3.

For the alternative that sets the ACL equal to the ABC, the alternative that sets the ACL at 95 percent of the ABC is the next set of tables. As you can see here, Table 2.3.3 is set up the same way, and then so on and so forth. There is a lot of information to look at. We had to analyze and compare all of these; and that is what the council is going to have to look at in June.

In addition, we have a table here showing what the current allocations are, if you are curious about that. Those would not change. Then we also have information on the percent standard error, which is the statistic that is used in determining the annual catch target for the recreational sector.

Then to complicate matters even more, some of these species are included in complexes; so they don't have individual ACLs. Then we have to show how the ACL of the entire complex would change as a result of all these various alternatives. That is what this table shows you, how the deep-water complex would change and so on and so forth; the snappers, the grunts, shallow water groupers; and then there are the individual stocks that have their own individual ACL at the very bottom.

MR. ATACK: I just had one observation. If you go to the allocations by commercial and recreational; I guess from the tomtates they've got zero percent for commercial. Everything else they've got some percentage commercial. I'm surprised that is a zero.

MS. BROUWER: I believe the reason for that is maybe because it is mainly a bait fishery for tomtates; I'm not sure. There is a formula that the council used to establish allocations; but there were a couple of species, blue runner being one of them, but that one has been chucked out of the FMU; and I believe tomtate was the other one. I don't know if anybody else recalls. There is no commercial harvest of tomtate.

MR. ATACK: If they are used commercially for catching fish, I guess that goes against the recreational quota.

MR. JOHNSON: We're getting off in the weeds here a little bit, I think. Okay, guys, we need to give them a little bit of guidance here on what we think about how to set the ACL. Does anybody have any ideas?

MR. FEX: I would like to make a motion that in Action 3 we choose Alternative 2 as a preferred.

MR. JOHNSON: Seconded by Phil. Do we need any other discussion on this?

MR. HULL: Just for clarification could you read – I see the motion but could you read the alternative?

MR. JOHNSON: It sets it at the optimum yield so there is no step-down**. All in favor of this motion; seeing none opposed, it is approved.** Let's take a quick break.

MR. JOHNSON: Okay, we're going to get started again.

MS. BROUWER: Okay, moving along with the amendment; Action 4 would modify the minimum size limit for gray triggerfish. This is an action that has changed since you last saw it. Initially it was introduced because there needed to be some consistency in the way that gray triggerfish are measured between state waters and federal waters.

The action actually included some language as far as making the size limit consistent; but then that morphed into this current action, which is basically just to modify the minimum size limit. Alternative 1 explains that the size limit is specified in inches total length in federal waters off of East Florida and in state waters the minimum size limit is specified in inches fork length.

It is 12 inches in total length in the federal waters and 12 inches fork length in Florida state waters. This is on the east coast of Florida. It is different on the west coast of Florida. That is your no action. Alternative 2 would specify that minimum size limit for gray trigger at 12 inches fork length in federal waters; so it would just make it consistent at that same size limit.

Then the council in March added subalternatives to each alternative, because they wanted to have the option of making this applicable only to the commercial or only to the recreational

sector. That is why those subalternatives are there; and they asked us to include them for each of the alternatives in this action.

Currently the council's preferred – one of their preferreds is Alternative 3, which would specify a size limit for gray triggerfish of 12 inches fork length in federal waters off of North Carolina, South Carolina and Georgia. Basically, what this does is it just extends what is currently in place off of East Florida to the rest of the South Atlantic states; and it provides that consistency in the way that the fish are measured between state and federal waters. That is the current preferred.

Then there is Alternative 4, which would increase that minimum size limit to 14 inches and would extend it north; so it would apply to the entire South Atlantic. Then they introduced another alternative at their March meeting, which they chose as one of their preferreds, and that is to increase the minimum size limit to 14 inches in federal waters off of East Florida.

The rational there is, as I mentioned a minute ago, there is inconsistency in the minimum size limit on the west coast of Florida versus the east coast of Florida; so Preferred Alternative 5 would address that. If you take both of their preferreds into consideration, what the situation would look like is the minimum size limit for gray triggerfish would be 12 inches fork length for the Carolinas and Georgia and then 14 inches fork length off of East Florida.

Then you have some preliminary analyses in here. You can see the landings for gray triggerfish are on this table. You have from 2007 through 2012 the landings in pounds whole weight. Under Alternative 1 for Action 3, which is the one that maintains the current ACL – and this is just for commercial – we have 272,880 pounds is the current ACL and then a comparison of how much the landings have exceeded that ACL over the five years. Then we have a column that shows what the ACL would be under Alternative 2 of that action.

This is with the increase that the ORCS approach would apply to gray triggerfish; so that ACL would then go up to 312,325 pounds for the commercial sector. Again, if you compare it to the landings, you see that landings have been above that ACL for all but the last one of those five years.

Then the columns for Alternative 3 and the columns for Alternative 4 and 5 are structured the same way. You can see in the percent of ACL for all the alternatives the landings have actually exceeded all of these proposed ACLs for each one of those years except for 2012. That was because there was actually an in-season closure I believe that year for gray triggerfish.

Then we have a table that shows the projected closure dates for the 2014 fishing season for the commercial sector. Under all the alternatives in Action 3, because there is no preferred, so we had to analyze all of them; and if you take Preferred Alternatives 3 and 5 of this action combined, so this table shows you when that ACL would be met for the current ACL. That is the row at the top.

Under the combination of Preferred Alternatives 3 and 5, the commercial ACL would be predicted to be met by August 5th. For Alternative 2 of Action 3 – that is the one where the ACL equals the ABC – you have the end of August as a projected closure date if the council sticks with Preferred Alternatives 3 and 5 for the size limit. Then you have all the other predicted dates for the remainder of the ACLs.

MR. FEX: The scientists were able to figure out if the size limit increased, that the landings would change; how did they do that? Honestly, I can't grasp how they did that. I appreciate them doing it, but I really don't understand that.

MR. JOHNSON: They may have used port samplers; I don't know. I'm sure they used some kind of method.

MR. DeMARIA: The size limit in the Gulf is 14?

MS. BROUWER: Kenny, the amendment document itself usually contains an appendix that has all the very technical analyses of how the analysts did what they did for whatever action. All that information is within the amendment. I can't even begin to explain to you how they did it, but it is in there.

MR. FEX: I was at the last meeting and I heard Jessica fight for the 14-inch size limit. When I went home, I kind of measured my fish when I went fishing to kind of see what kind of reduction I personally would have. It was close to 10 to 20 percent reduction in my landings per trip. I think that would actually be a positive thing, because I know a 12-inch triggerfish don't have much yield; 14 inch is actually pretty good.

Actually, I think the season would extend because of that reduction in landings, so in turn would help us, because I know I appreciate having triggerfish the longer I can. I kind of support the 14-inch size limit across the board, because that is fair. I am just throwing that to let you guys know that I actually did take all this into consideration.

MR. HULL: This is where I probably disagree with a lot of people on this panel. I fish for triggerfish off of Florida. We've been living with a size limit for a long time where nobody else has. The 12-inch size limit, I agree with it. Could I live with taking that from a fork length to a total length measurement, which they have in the Gulf to equalize that; yes.

Would I want to see a major – that is about two inches right there. Do I want to see a major increase in the size limit of triggerfish, no, because it is going to cause discards. A lot of the people argue, well, I don't see discards in my triggerfish at the depth they're at. I see discards. I see them with our pot fishery, because we do get bycatch of triggerfish.

You don't get big triggerfish in pots; you get small triggerfish. Their guts are hanging out and they're dead discards. Unless the stock assessment is done and the SSC decides that there is a biological reason to increase the size limit; I am opposed to increasing the size limit or putting a size limit, for that matter, on the northern range, which I don't have much to really say about.

In my area we've had a 12 inch. They want to have some consistency with the Gulf; okay, well, we have a lot of differences between the Gulf and the Atlantic. This is just one of them. If you want to have some consistency, then open up speckled hind and Warsaw, which is open in the Gulf and closed in the Atlantic. There are so many things. I would be opposed to any huge size increase. I could live with making it from a fork length to a total length, which would change it to – it is going to give an increase right there. I don't want to go too big on it, though.

MR. JOHNSON: This AP has actually been talking about this for three years, maybe four years. We've heard every year from council; but there is a stock assessment, why don't you just wait until the stock assessment is done? We're still waiting on the stock assessment, and it is just a question do we want to be proactive or reactive in what we do?

MR. WAUGH: In answer to Kenny's question; the way you look at what impacts an increase in size limit are going to have on the stock is you look at the size data you have from each sector. You look at that size distribution and you look at changing the minimum size limit that is going to affect some percentage of the size samples that you have; and then you would apply that percentage to the landings.

If increasing that minimum size limit would result in a reduction based on the size data you have of 10 percent, then you're assuming that is going to have a 10 percent reduction in catch; but there are a lot of assumptions that go into that that fishermen aren't going to change how they fish, which you always do. That is in general how they come up with those estimates.

MR. JOHNSON: I'm also really not willing to see Florida live under a different size limit than the other three states when we're all under the same ACL. I don't think that is fair to Florida fishermen. I think whatever recommendation we make, we should try to make it across the board.

MR. DeMARIA: On this one I don't think it is so important to be consistent with the Gulf and Florida. A lot of the other species like black groupers, red groupers, and yellowtails we catch on both sides of the Keys, but we don't really catch these triggerfish in the Keys. We catch the big ocean trigger that is gray, but not the gray triggers you catch. I doubt that there are going to be too many people fishing out of the north side of the Keys catching 12-inch triggerfish and bringing them back in and then saying, well, I caught them in the federal waters of the South Atlantic. I just don't see it as a problem for us, because we don't really catch the fish. Being consistent with the Gulf on this one for us is probably not a big deal.

MR. HARRIS: I would agree with what Don said; even for the triggers that we do catch, seldom do we even keep them. We throw them back. I mean it is not like it is something that is important to us at least not from the recreational side. It is too much of a pain to clean. The conversation I had with Terrell, this is a very important fish for him so not so much for me.

He was really, really adamant about going up to a 14-inch size limit and the impact it would have on him in his business, with what he does. He is really strong – I don't think I am saying that properly, but he is really against a 14-inch size limit. Although I do agree that we should have some sort of standardization between Florida and the rest of the states; that is not a problem for me. I would be able to support the 12 inch, but not to a 14 inch; not only for myself and my own purposes, because I don't keep the danged things, but for Terrell because he is not here and can't speak out against it himself.

MR. JOHNSON: We'll look at the recreational landings before we make any motions here.

MS. BROUWER: Okay, what I showed you was just for the commercial sector. Here is the same kind of a display for the recreational. The landings in the first column over the years 2007

through 2012, the Alternative 1 ACL for Action 3, so that is the current ACL for the recreational sector, 353,638 pounds, which has been exceeded in all but the last year.

This table should be corrected. I apologize; I corrected the one above but not this one. This should be Alternative 2 for Action 3. This is where the ACL equals the new proposed ABC. It would bring it up to 404,675 pounds. Again, there have been some overages if you go back in time, but they have been under the last – or they would have been under that particular ACL the last two years.

You read the table the same way. These are all the other proposed ACLs compared to the landings. Then this table here shows the percent reduction in recreational harvest from implementing the various size limits. If you take Alternatives 3 and 5 in conjunction, their current preferreds, you could have seen a 7.5 percent reduction in harvest in 2010; 8.7 if you compare the 2011 landings; and 9.7 if you compare the 2012 landings.

This is for the entire recreational sector, so that includes headboat. I'll put the alternatives back up. I would suggest that you also – when you make a motion to recommend something to the council that you also – they wanted to have the option to make it apply to either commercial or recreational or both. It would be useful if the AP could weigh in on that as well.

MR. JOHNSON: Does anybody have a preferred here? I will say that I was at the council meeting and there was not a whole lot of enthusiasm about a 14-inch size limit. The only enthusiasm was as long as it was in Florida everybody else was okay with that. I don't think that is the right thing to do for Florida fishermen.

MR. HULL: You may want to help me with this, but I think the Preferred Alternative 3, specify a minimum size limit for gray triggerfish of 12-inches fork length, which currently is total length in federal waters and Georgia – that's not the one. The one that would state it would change it off of Florida was Jessica's. She wanted to change the measurement from total length to fork length, correct?

MS. BROUWER: Yes; and that would be Alternative 2. In order to accomplish what I think you want to accomplish, you would have to propose Alternatives 2 and 3 as preferreds, because Alternative 2 would make that measurement consistent at the 12-inch limit and then Alternative 3 would extend it north to the rest of the states.

MR. HULL: Thank you, Myra, for the help on that. I think that is what I would support. It would give the consistency between the total length to the fork length, but it would also then make it fair for the people off of Florida to have everybody else under the same measurement and not just be off of a piece of Florida. When it is time, I would like to try to make a motion to that effect.

MR. JOHNSON: It's time.

MR. HULL: Okay, I would make a motion that would specify that the 12-inch size limit be measured in fork length as opposed to total length and that it be implemented all the way up in every other state as well as off of Florida.

MS. BROUWER: May I suggest that we just recommend selecting Alternatives 2 and 3 as preferreds.

MR. HULL: Thank you.

MR. JOHNSON: Jimmy, do you want that for both sectors?

MR. HULL: Both sectors, yes.

MR. JOHNSON: Are you seconding that Don; seconded by Don. Okay, is everybody clear on this motion? What it basically does is establishes a 12-inch fork length size limit for all states in the EEZ for all sectors.

MR. COLE: Normally I would abstain or object to this motion not because of the size limit but by this difference of total length and fork length. We spent many years in ACCSP trying to get standardization up and down the whole Atlantic and Gulf Coast on this issue of fork length and total lengths. We ultimately decided that we'd do totals; and now we're all back to splitting these things up depending upon the species. I'm going to vote for it, because it is a useless case to try to separate them.

MR. HULL: In my case this increased – measuring them, it increases two inches the fish that I've been harvesting. I am going to have to discard some fish or change some things.

MR. JOHNSON: I understand that. **If there is no other discussion, we'll go ahead and vote on this motion. All in favor, all opposed. The motion is approved.** Okay, we're going to move on to Action 5, and Myra will explain it to you. We've already had this discussion on the AP before, so it should be pretty quick.

MS. BROUWER: **That is correct. Action 5 would consider a commercial split season for gray triggerfish, and currently the council's preferred is to set it up the same way that they have the split season for B-liners to where you get 50 percent of the ACL allocated to the first six months of the year and the other 50 percent to the last six months of the year. Then any remaining quota from season one would roll over to season two. That is exactly what we have in place for vermilion; and that is the current preferred.**

MR. JOHNSON: Are there any questions on that? Would someone like to make a motion to accept that as a preferred? The motion is made by Bill; seconded by Rob. All in favor. It is approved unanimously.

MS. BROUWER: The last action in this amendment would look at establishing a commercial trip limit for gray triggerfish. Of course, there isn't one right now; that is the no action. Currently the council's preferred is to go ahead and establish a trip limit. Their preferred trip limit would be 1,000 pounds.

In addition, they have Alternative 3, which would give them the option of instituting a step-down when 75 percent of the ACL is met. The subalternatives there are 200, 500, or 750 pounds. Right now the current preferred, like I said, is 1,000 pounds without a step-down.

MR. JOHNSON: All right, I'm going to look to the commercial sector. With a 1,000 pound trip limit, do you think there is going to be any triggerfish left for the second opening? Go ahead, Phil.

MR. PHIL CONKLIN: If it was up to me, I would do Subalternative C for the simple reason that some of these guys, you spend so much money on fuel that the more fish you can catch – not many of them, granted, are going to make some of the runs that these guys do; but I had two trips last week that landed over 2,000 pounds per trip on two boats.

I had 30-some boxes of total fish on the boat. They spend a lot of money going to catch these fish. Not all the fishermen are going to do it, because they don't have the boat that will take the sea like they do; but those guys that can do it, I would give them the option.

MR. JOHNSON: Yes; and I guess you are going to have a split season, anyway, so the ACL is going to be split up, correct?

MR. PHIL CONKLIN: The only reason that they make that run right now is because they can't make a trip on 500 pounds of B-liners. They have got to subsidize it with something else. I mean, that is the total thought behind the whole thing. You've got to spend money to make money; you know that as well as I do.

MR. FEX: Yes, I understand what you're talking about. The concern I see though is when our season is cut back half the year. I know the trip limits are only to extend the season. When that guy can't keep those triggerfish when he's catching the grouper at the end of the year, he's going to be hating it, too. I would prefer the thousand pounds. That is still within reason; and if you think about it, commercially $5,000 worth of fish is usually our average. I've asked that to several commercial guys; so 1.500 pounds of triggerfish, that is half of your average. I support a thousand pounds.

MR. JOHNSON: Myra has got a table up there right now that we can look at. It shows you the number of boats that are catching these large amounts of gray triggerfish. You can look at that and help inform your decision.

MS. BROUWER: The first column just shows you the number of trips that caught this number of pounds of triggerfish; and then you have it displayed as a percentage of trips. You can see that the percentages; after about 500 pounds, the percentages go down substantially. If we go down to 1,500 pounds; there is only 0.82 percent of trips that caught that much triggerfish. These data are for 2012.

MR. HULL: I feel Phil's pain on that, and talking to Charlie, the council member, at his dock; the boats that make the trips there similarly make long trips. It is a long ways to where they're fishing; and when other things are shut down, they need to harvest triggerfish to make it. I have to again turn to my situation in my area.

We would support the 1,000 pound with a step-down so that it would last longer and instead of shutting down we're just – again discards, anything that we can do to reduce dead discards when something is closed to have the season open at the same time as vermilions is something that we would support. That is the way I look at it. I don't know if there is anything that we can do for

these bigger boats that are harvesting 1,500 or 2,000 pounds of triggerfish. I don't know what to do about it.

MR. JOHNSON: Just for clarification for the group, Jimmy's boat is probably running 50 miles one way to fish on average. People think about Florida; I know there was an article in the paper about we could take canoes to the reef, but that is not the case.

MR. FEX: One comment to your big boat theory, and I understand that, is this year I probably only was able to make seven trips in the spring this time whereas I know the big boats were out there when I wasn't out there. Sometimes the advantage of a big boat is actually above mine, because you are able to stay out there through the rough weather. It is a give and take on both of those sizes, the bigger boat versus a smaller boat. I just wanted to make that comment.

MS. BROUWER: I just wanted to point out this table here shows you the predicted length of the season under these various alternatives. The one that is highlighted is the preferred, which is 1,000 pounds. If we assume that the council is going to go with Alternative 2 under Action 3 and adopt a new ACL for the commercial sector, which is this one right here, 312,000 pounds; then the first season is projected to close towards the end of April and the second season would close towards the end of September. That is how you read this table. Then as you go across for the various different ACLs; there is a predicted closure date. Then further down over here you have what would happen with the step-down as well, how long the season would stay open with a step down.

MR. HARTIG: I know my concern and other council members' concern is about bycatch in that fishery. Functionally I think we would like to see the fishery get back to where you made a trip, you caught your B-liners, you caught your triggerfish, and you caught whatever else you caught in a trip and you came home. That is down the line. That is something we'll talk about later. My question is can you target gray triggers in a 1,500 pound trip that doesn't have a significant bycatch of vermillion snappers in doing so?

MR. CONKLIN: Just mark your wire and you just drop it to where everybody on the boat is catching the fish and they're fishing at one depth. You're not targeting the rest of those fish that are on the bottom of the ocean.

MR. HARTIG: Yes; but vermilions are pretty much up in the water column as well. I'm just asking from the fishermen that are here that catch vermilions and triggers together; can you isolate triggers based on – I know Phil says you can come up in the water column, and we do that for some other species as well and it does work to some degree.

MR. FEX: Yes; typically you can tell the difference in the color machine somewhat which one is which; and if you don't fish at night, you're not going to catch the B-liners; that is typical. If you fish in the daytime, you are more apt to catch triggerfish on the spots; whereas if you fished into the night, you are not going to catch a triggerfish. It can somewhat be a targeted species. You know the ledges they live on; you can reduce some of the bycatch by that knowledge.

MR. COX: Those fish kind of co-exist. The way we see it, yes, the triggerfish do bite more during the day and the vermilions at night; but they co-exist. It would be nice if – it is a deal where you catch them together; that is kind of how I see it when we catch them.

MR. HULL: Both of these species are very important to the market now. It is vital that we try to keep it open as long as possible; because with all of the other closures that we have, triggerfish has become very important. Of course, B-liners always have been, but even more so now.

MR. JOHNSON: Does anybody have a preferred here? Want to give some guidance?

MR. ATACK: I guess I would make the motion to make the preferred alternative as Preferred Subalternative 2B and then Alternative 3B as a step-down.

MR. JOHNSON: That is seconded by Kenny. That is basically the 1,000 pound trip limit with a step-down to 500 pounds when 75 percent of the ACL is projected to be met. While Myra is putting that up on the board; do we have any other discussion on it?

MR. HULL: I didn't have time to add it up when she had the chart up there; but with that preferred, did we get a total between the two seasons? The split seasons, did we get an eight months of an open fishery with triggerfish; is that what it looked like, something like that?

DR. CHEUVRONT: I've actually been working on the economic analysis of this for the last couple of days. One of the things I did was calculate the number of days that the season would be extended under all of these different combinations, not using the calendar but actual number of days; and what we're talking about here is if you're choosing – the most bang for your buck is going to be in the first season rather than the second season.

If you are selecting Subalternative 3B as your preferred; and assuming under Action 3, Alternative 2 is the preferred; you are looking at extending the season by 27 days. However, when you get to the second season, you are only going to extend the season by two days. The thing is these trip limits really have very little effect on the fishery in the second season and largely because there are other fisheries that people are participating in at that time.

In the first six months when people are working in this fishery, there is not a whole lot else to fish for; so people are hitting a lot of gray triggerfish. To be perfectly honest with you, the only way that you're going to get much bang for the buck in the first season is to go to a 500-pound trip limit.

If your goal is to extend the season; that would be Subalternative 2A; or, to do the step-down and going down to 200 pounds. Those two alternatives would get you almost as much as two months' extension to the season over what you're getting now but at a tremendous cost. That is one of the things is that trip limits from an economic perspective are not a good thing for the same reasons that Phil was talking about earlier.

Your trip costs go up because you have to take more trips to catch the same amount of fish. If you're getting the same price for them all the way throughout and you're going to catch the entire ACL; having to pay more to get the same amount of fish is not a good thing economically. That is kind of where we are with that.

Your rate of return is really going to be determined by that first season. You are not going to get much bang for the buck no matter which subalternative you recommend for the second season;

because even in a 200-pound trip limit, that Subalternative 2A in the second season is going to buy you only as much as a week.

You are not getting much in terms of extension of the season. Because of the amount of fish that folks are catching in that second season after July 1; they are catching a bunch of other things, so a 500-pound trip limit is not going to hurt or change the characteristics of those trips very much.

DR. DUVAL: Brian, I was just asking Myra about this; and I don't know if you know this or can answer it, but if you look at the different closure dates at the bottom of that table for Alternative 3, Subalternatives 3A, 3B, 3C; that alternative does not include a trip limit. It is just when you hit 75 percent of the ACL, then you put in a trip limit. I just wanted to know if you know if those closure dates projected there are based on that; like zero trip limit until you hit that 75 percent ACL or were those calculated with like a thousand pound ACL in place?

DR. CHEUVRONT: No; I believe those are calculated unlimited until 75 percent of the ACL was taken.

MR. JOHNSON: What I'm hearing from fishermen is the way the B-liner fishery was structured, they sort of liked the idea of the step-down. If the weather was bad and some of the bigger boats could fish and the smaller boats couldn't fish, it allowed them to compete. They are co-mingling stocks. You are basically setting up triggerfish just like vermilion with a thousand pound trip limit until 75 percent of the ACL is projected to be met; then to a 500 pound step-down, which still allows the guys to fish.

MR. FEX: Yes; to Brian Cheuvront's point, we actually get more money for our fish when there is less fish on the market. When we have an abundant amount of fish, we get less money for them. When you limit the amount of fish to the market, the value goes up. It ain't going to compensate totally for it. The problem we're having is the availability for fish to dealers and the general public. The trip limits are really just to extend the seasons to help everybody, because we all still want to go to work. We all don't want to have nothing to catch.

That is all we're trying to do. I'm taking a hit, too – I mean right now I am with the B-liners, and I'm looking at it; but I'm willing to take that to keep my crew member busy. I'm willing to take that to get my dealer busy. I'm willing to help with the restaurants. Really a lot of times the trip limits I understand economically aren't feasible, but it is worth it to help the other people to keep them working. A lot of times I support trip limits just for that fact.

MR. JOHNSON: Well, if there is no further discussion, we'll go ahead and vote on this motion. **All in favor of the motion; all opposed; any abstentions? One abstained. The motion is approved.** Okay, we're going to move into Amendment 32 now.

MR. SMITH: I actually had a motion.

MR. JOHNSON: Okay, go ahead.

MR. SMITH: I would like to make a motion that we place a moratorium on the landings of hogfish until there is a stock assessment.

MR. JOHNSON: It is sort of out of order. You are welcome to make that motion under other business.

MR. SMITH: Other business will be tomorrow.

MR. JOHNSON: No, we'll get to it today. We're on a fast track.

MS. BROUWER: We're going to go through Amendment 32. This is the one that addresses blueline tilefish as a result of the stock assessment that was recently completed. The assessment was completed in the fall and presented to the council at their December meeting. However, there was still some analysis that the council requested be done.

There were some projections that still needed to be done; and those will be looked at by the SSC when they meet later this month. Until the SSC has looked at those projections and giving the council their recommendation for an ABC for blueline tilefish, we just kind of have placeholders for the ABCs and the ACLs.

However, in December of 2013 the council did request that NOAA Fisheries take emergency action to reduce the ACL for blueline tilefish from the current one as a result of the stock assessment outcome, which determined that the species was overfished and undergoing overfishing.

Here is the purpose and need for the action. To reduce the current level of fishing mortality of the blueline tilefish stock in the South Atlantic is the purpose, and the need is to end overfishing and rebuild the blueline tilefish stock while minimizing to the extent practicable adverse social and economic effects.

Then your discussion document has some background information on the emergency rule and what that does. The emergency rule, when it becomes implemented, it will be effective for 180 days; and then the council can request that it be extended for another 186 days. Essentially the council has a year to develop an amendment that would put in permanent regulations to address the ACL for this species.

This amendment would look not only at that, but it would also determine other levels; the maximum sustainable yield, the ACL and the OY. The recreational annual catch targets would also need to be adjusted as well as accountability measures; and then there are some actions that would put in management measures for each of the sectors.

Moving on to Action 1; Action 1 redefines the MSY for blueline tilefish. This is sort of a housekeeping sort of an action. The current MSY was put in place through Amendment 11 to the FMP. It established that MSY at the yield at F 30 percent SPR. There is not really a value associated with that and the Fmsy is a proxy for the MSY.

Now that the stock has been assessed, the council would like to change it so that the MSY would equal the yield produced by Fmsy or the Fmsy proxy. Then it says MSY and Fmsy are recommended by the most recent SEDAR or SSC. By taking action to do this, it would ensure that the next time this stock is assessed the council doesn't have to go back and make a plan amendment to adjust the MSY. It just happens automatically as the preferred alternative shows.

That level, according to the assessment, is at 226,500 pounds. That is the maximum sustainable yield for blueline tilefish.

MR. COLE: Move Alternative 2.

MR. JOHNSON: Seconded by Jim. Any discussion? That's the total ACL, Myra?

MS. BROUWER: That is the MSY.

MR. JOHNSON: Oh, the MSY, I'm sorry.

MR. HARTIG: Just a question; when this stock is totally rebuilt, will the MSY be 226,500 pounds?

MS. BROUWER: I believe that will be determined by the next assessment.

MR. JOHNSON: This is a huge fishery for North Carolina. There are a lot of people really going to get crushed; but it is what it is.

MR. HULL: Could you read Alternative 2 under Action 1 again or put it up there so we could read it?

MS. BROUWER: Alternative 2 reads MSY equals the yield produced by Fmsy or the Fmsy proxy. MSY and Fmsy are recommended by the most recent SEDAR/SSC. That level in pounds whole weight is 226,500.

MR. COX: I would just like to take a second here and kind of give you guys a little bit of history of how we interact with these species in North Carolina. The guys up in Dare County, the upper end of North Carolina, they longline for these species; and there are about 12 to 15 guys to do this. In speaking with those guys, they need about 1,500 to 2,000 pound trip limit to make this fishery work. They catch the majority of the fish. I think the rest of us, starting at about Morehead City on down to Florida, it is a bycatch fishery. We catch 50, 100 pounds a trip. I just kind of wanted to put that out there and give you guys an idea of how that fishery works. It is very important to those Dare County guys.

MR. JOHNSON: Yes; and this is one of the odd deep-water species that has an allocation that is heavier on the recreational side. This MSY is only, what, 40 percent of that is going to be – do you know, Michelle?

DR. DUVAL: It is roughly 50/50 now. It was like 47 commercial/52 recreational. Then when Regulatory Amendment 13 went into place and updated all that MRIP information, it shifted it just a bit so it really is roughly 50/50. I know Myra has got the exact decimal points somewhere, but that is effectively.

MR. JOHNSON: Well, I don't think we have any options; I hate to say that. **This is it; let's go ahead and vote on this. All in favor, all opposed. The motion is approved.**

MR. HARRIS: This is all still based on the fact that we don't even sample the entire range of these fish and we're saying that they are in overfished status. I'm looking at the council's website. For the deep-water complex, just in the current landings for the commercial fishery is listed at 48,000. We're looking at 376,000 as being the total ACL?

MR. ATACK: The current ACL is a total 711,000; 377 commercial/334 recreational.

MR. HARRIS: Yes; but so far they've only caught 48,000 in the commercial sector. I guess I'm not seeing how it is overfished based on the lack of information that we have. That doesn't even break it out specifically by species, because it just lists it as part of the deep-water complex.

MR. JOHNSON: They have significant commercial landings in North Carolina. I don't know what they are, but it is a bunch.

MS. BROUWER: Also the majority of the Deep-Water Complex ACL is attributed to blueline tilefish. There is a handful of species in there, but the one that carries the most weight as far as the ACL is concerned is blueline. Moving on to Action 2, this one would establish an ACL and an OY for blueline tilefish and then revise the ACL and OY for the deep-water complex.

I should tell you that this amendment is being developed right now; and one of the things that we are going to suggest to the council in June is that we separate this action into two actions, so that we have one action that would simply take blueline tilefish out of the deep-water complex; and then dispense with that.

That would take care of adjusting the ACL for that complex and adjusting the accountability measures and everything else that needs to be done. Then the rest of the actions would deal only with blueline tilefish. That is how we're going to structure the amendment for the council in June; but we're working on it so I don't have it obviously yet to show it to you guys.

Regardless, over here the no action alternative has what is going to be put in place through the emergency rule. If the temporary rule through emergency action is approved, then blueline tilefish would temporarily be removed from the deep-water complex. Then the ACL for blueline tilefish for the commercial and the recreational sectors combined would be 222,100 pounds. Then if you apply the allocations, you would end up with a commercial ACL of 112,207 pounds and a recreational ACL of 111,893 pounds. That is quite a substantial reduction from the current ACL.

The rest of the alternatives basically are similar to what you saw for the previous amendment where the ACL is stepped down a certain percentage from the ABC. Alternative 2 sets it at the same level, ABC equals ACL equals OY. Alternative 3 sets it at the ACL would be 98 percent of the ABC; and then Alternative 4, the ACL would be 90 percent of the ABC. Like I said, since we don't have any revised numbers from the SSC yet, we can't proceed with some of these analyses until those numbers are available to us at the end of this month.

MR. COLE: Without some numbers; this is like walking on a razor blade, almost. **I do think that the notion of splitting it is appropriate, like you suggested. In other words, take blue tiles out and leave the rest of the deep water so we don't have to keep doing this. I am going to make that motion.** Now what else we do with it; I've got to think about it a minute.

MS. BROUWER: Bill, I just wanted to make sure I understand. **You would like to propose a motion that blueline tilefish be removed –**

MR. COLE: Be removed.

MS. BROUWER: – so that an action is included in the amendment to remove it from the deep-water complex. Okay; that is something that, like I said, we're going to suggest that the council do; but it would be helpful to get the support of the AP.

MR. COLE: I move that.

MR. JOHNSON: Do we have a second on that motion? Seconded by Jimmy. **Okay, we can go ahead and vote on this. All in favor of this motion; all opposed. The motion is approved.** Michelle, what is the ACL set at; what is the control rule right now for blueline tile? Is it equal?

MS. BROUWER: Well, yes.

MR. ATACK: What is our standard for setting the ACL percentage versus the ABC? Is there any kind of standard step-down we're doing or are we pretty much setting it at 100 percent all the time?

MS. BROUWER: The council has consistently set it at the same level; but I should tell you that for this stock the assessment included the entire Atlantic Coast. It is not just the South Atlantic states. What happened in March is the council requested that staff look at the landings and determine what percentage of the landings occur north of the North Carolina/Virginia border.

It ended up being that was just 2 percent. That is why there is an alternative here, Alternative 3, which sets the ACL at 98 percent of the ABC. That was put in there to account for those landings that occur north of the South Atlantic Council's area of jurisdiction.

MR. COLE: Myra, do we need that 2 percent or 98 in order to be equal with the overfishing and all this sort of stuff?

MS. BROUWER: Well, the only thing that does is it accounts for landings that the council really has no control over because they are outside of their management jurisdiction; so that is why they decided to have an alternative that would reduce the ACL that is applicable to the South Atlantic by that percentage.

MR. ATACK: I guess I make a motion to do Alternative 3 as the preferred motion.

MR. JOHNSON: Do we have a second? Seconded by Bill. Do we have discussion?

MR. ATACK: Yes, I guess we have three choices. If you used Alternative 2, we're not accounting for the 2 percent supposedly outside the range. Alternative 3 sets it equal; Alternative 4 is a step-down of 10 percent. I guess that is our three choices. Alternative 3 is being consistent with what the council has done on the other fisheries.

MR. JOHNSON: **Okay, any other discussion or any questions? All in favor of this motion; any opposed? The motion is approved.**

MS. BROUWER: Action 3 would establish or adjust the recreational ACT for blueline tilefish and accordingly revise the ACT for the deep-water complex. The council has consistently chosen to set the ACT at the ACL times one minus the percent standard error or the ACL times 0.5, whichever is greater. They did that because using the percent standard error ensures that the uncertainty that is present in the recreational landings is accounted for in establishing that ACT.

You have the no action alternative, which has the recreational ACT for the entire complex and not just for blueline tilefish. Alternative 2 would set the ACT just for blueline tilefish at that level that I just told you; ACL times one minus the PSE. The council gave us guidance in March to go ahead and use the most recent five years of recreational landings to get those PSEs. Then Alternative 3 would set the recreational ACT at 85 percent of the ACL. This is just a straight 15 percent step-down from the ACL.

MR. ATACK: Do we know what the PSE is for the last five years?

MS. BROUWER: I don't have those data in front of me.

MR. ATACK: Do we have any idea what it might be, a kind of range?

MS. BROUWER: Mike can pull those together for us in a couple minutes.

MR. JOHNSON: Do we have any other discussion on this action while Mike is getting that together for us?

MR. HULL: Just to a point of knowledge for me; in the complex, if this goes through, was blueline tilefish the only – was that the indicating stock with the assessment for the complex?

MS. BROUWER: Well, the council didn't establish complexes with indicator species. That was something they considered at one point in their management, but the complex does not have an indicator species that dictates the ACL for the entire complex. Basically what happened is each species in the complex was attributed an ACL; and then all the ACLs were added up to come up with the overall ACL for the complex.

MR. COLE: Myra, I'm confused. **If we do Alternative 2, we would be pulling out blue tiles and treating them with the standard formula. Then we would still be treating what's left in the complex with the standard formula. Isn't that what we want to do? Put that down; that is what we're going to move. It's these acronyms that get me. I know and we're not going to vote on it until we get the PSE.**

MR. JOHNSON: We can go ahead and vote on it. I think he just wants it for general knowledge. Okay, we've got a motion up here, folks. Is there anymore discussion on it?

MR. BROWN: I just want to make a comment about it. For our area here, gray tilefish is just not a big fishery here. We don't land hardly any recreationally and just a few commercially that

is out of this area. I just wondered is there any thought to change the percentages between recreational and commercial? Is that a possibility, do you know?

MR. COLE: Not with this amendment.

DR. DUVAL: Yes, Mark, we did have a Comprehensive ACL Amendment that we sort of kicked off in June of last year; and then because we wanted to make sure we got input from folks through the visioning process with regard to different ways to consider allocations between the sectors; we put that off.

We're moving forward with it. I think you guys will see that coming up here in a minute for some other species; but for snapper grouper we decided to go ahead and put that on hold so we could get input from the public on other types of methods besides what we used in the Comprehensive ACL Amendment, which is 50 percent based on the average of your sort of long-term landings and 50 percent of the average based on your short-term landings.

With regard to blueline tilefish, if you look at just the annual landing streams from the commercial and recreational sectors, which I believe in the table in the back of this decision document; the recreational landings go up pretty significantly like in 2007 or 2008. I do know, just speaking for North Carolina, that the charterboat captains working north of Hatteras; if they are out tuna fishing and the tuna aren't biting, they'll drop down and pull in some of those gray tiles.

I think the last time Mike Errigo pulled up some of the preliminary recreational landings from 2013; I want to say that according to those landings, it was becoming increasingly important in Florida when he looked at them on a state-by-state basis.

MR. BROWN: The only reason I brought that up is because of Dewey Hemilright. Dewey talked about how significant that was for them up in that area and that was one of their main fisheries and targeting them was real important.

MR. HARRIS: I know that we're not really talking about it, but I have to address that I am totally against stealing from Peter to pay Paul; especially when the last seven years I've been arguing for an increase in ACL for the recreational sector because it is not reflective what the recreational sector is actually fishing.

Up here recreationally that may not be a very big fish. For us in South Florida it is huge, and I mean huge. There are industries that revolve around them, not just selling fish commercially, but electric reels, boats; the list goes on and on. To take some of it from the recreational sector to give to the commercial sector; that would be a disservice to the recreational guys.

MR. JOHNSON: Well, I think we need to remind ourselves that the reason the ACL is what it is, is because of high recreational landings. Most of those I think came from North Carolina. I was involved in this assessment. There were significant landings from North Carolina.

DR. DUVAL: Yes, certainly, Robert there was, especially in like 2008, 2009. I'm just saying like recently. If you know what Rob has said about blueline tilefish being important in Florida; it is definitely reflected in those landings when you look at them on a state-by-state basis. I do not

think – I am trying to recall if the deep-water ACL has ever been met for the recreational sector. I don't think that it has. It seems like that 50/50 split may be working.

MR. DeMARIA: Well, it seems like the recreational harvest is so huge; maybe we could just resolve this problem by banning the recreational catch of blueline tilefish. Well, we were considering banning commercial fishing out past 240 so why not consider that, also?

DR. DUVAL: You're just saying that to make sure everybody is awake.

MR. JOHNSON: Okay Mike, did you find those numbers?

DR. ERRIGO: Yes. The PSEs for blueline tilefish; the average PSE for the last five years is around 37 percent. If you take out 2013, which is still a preliminary estimate, the average is about 33 percent. It ranges from 28 percent up to 52 percent in the last five years.

MS. BROUWER: If you're unsure what the PSE is and what it is for, basically it is just a measure of how confident you are that your data area accurate or precise. I have a hard time with precision and accuracy. But, anyway, it measures how confident you are in the data. The closer that number is to 100, the less confident you are. For a lot of our species that aren't encountered in the recreational intercepts very often, then your PSEs are going to be really high.

MR. ATACK: What that does is that affects the actual catch target and not the ACL, right? Where the actual catch target comes in with accountability measures or does the actual catch target actually do anything in the recreational sector?

MS. BROUWER: The council has chosen not to base any management measures on meeting the ACT. The ACT, the way that our council has chosen to use it basically is sort of as a marker, sort of as a red flag. If the landings go above that level consistently over years, then the council basically is on alert that maybe they need to look at the management measures to rein in those landings. But the ACT level, reaching that level doesn't really trigger any action at all.

MR. JOHNSON: Thank you for that, Myra, and most of those deep-water species in the recreational sector have high PSEs, because they are just seldomly picked up and counted; so just for the group.

MR. WAUGH: Myra is correct, that is how we've used it before. The guidelines that were created; the idea was where you have variability in the recreational catch, you want to make sure when that variation goes up and you have higher landings you are not exceeding your recreational ACL.

The idea when this was put in place was management measures would be targeted on trying to achieve that ACT; but you didn't have to be very precise, because the landings should go up and down as long as they didn't exceed that recreational ACL. This recent lawsuit in the Gulf related to red snapper may change the landscape such that what many councils have been doing is just trying to achieve the recreational ACL.

You have that variation in the catch; but now when it goes up, it goes up above your ACL. I don't know that we're going to be able to continue exceeding recreational ACLs year after year

as we've done in the past. We may need to start looking at setting management measures like bag limits and seasons and so forth to achieve that recreational ACT; so that when that catch is so variable, it doesn't exceed that recreational ACL and put us into an overfishing situation.

MR. JOHNSON: **Okay, we've got a motion up here and we need to go ahead and vote on it. If there is no other discussion. All in favor if the motion; all opposed. The motion is approved.**

MS. BROUWER: Okay, the next action looks at accountability measures for the commercial sector. Currently there is an in-season accountability that closes the commercial harvest of the deep-water complex if that ACL is met or projected to be met. Then the post season accountability is if the ACL is exceeded; and at least one species within the complex is overfished, then there is a payback and the ACL in the following year is reduced by the amount of that overage. That is what in the books now.

Like I said earlier, the actions through the temporary rule are going to change things a little bit because blueline tilefish is going to have to be dealt with individually as opposed to within the complex. That is included as your no action alternative. Then there is Alternative 2, which is very lengthy, but basically it doesn't include any in-season accountability.

Alternative 2 deals mainly with what happens if the ACL is met. You've got Subalternative 2A where the ACL would be reduced the following year but only if the species is overfished. Subalternative 2B would be that if there is a commercial overage, then that would have to be paid back but only if that overage pushes the landings above the total ACL, so only if commercial and recreational ACLs together are exceeded; and it is because the commercial sector went over, then there would be a payback for that.

Then Subalternative 2C is similar to that, but then it adds an additional condition there is that this would only happen if the species is overfished. That post season accountability of a payback would kick in only if blueline tilefish are determined to still be overfished and the total ACL is exceeded.

MR. JOHNSON: Does anybody have a preferred here?

MR. ATACK: Well, I just had a comment. When you read these, I guess it talks about just one year. Like Alternative 2B, if the ACL and recreational ACL is exceeded, if the total is exceeded, then you would take that out the next year. If you do that for commercial and recreational, then that probably makes good sense.

If you put in the thing about only if the species is overfished; I mean we only know if it is overfished when we do stock assessments, so this could go on for a few years and really exasperate the overfishing if you don't know it and if the stock assessment is going down. Basically you could be pulling money out of the hole each year and not paying it back if you only do it when overfishing is occurring.

MR. JOHNSON: Are there any other comments? Does anyone have a preferred alternative here?

MR. ATACK: I guess I would make a motion for Subalternative 2B as a preferred alternative.

MR. JOHNSON: Do we have a second? Seconded by Kenny. Do we have any discussion on this motion?

MR. HULL: I've got one question. I think council previously has gone with the payback rule of being only if it is overfished I think I recall on a lot of different species; maybe not all of them.

DR DUVAL: I think one of the next things you'll be talking about is the generic accountability measures amendment. Jimmy is correct in that the council has a little bit of a hodgepodge of accountability measures, sort of when something gets paid back versus when it doesn't if there is an overage in one of the sectors.

What the council is trying to do is sort of standardize all of our accountability measures. One of the next documents you are going to see is an attempt to do just that. The selections that the council has made for other species like dolphin and wahoo is that a payback will only occur, as Jimmy indicated, if the total ACL is exceeded and the species is overfished.

I appreciate what Jim said, because I sort of had a little trouble wrapping my head around this concept myself. Let's not forget that the SSC sets the ABC recommendations, and then the council sets the ACL after that. As Myra has described, the council has chosen in the past to set the ACL equal to the ABC. We then divide it up from there.

As long as we are not going over that ACL in total, we're not damaging the stock. It is when we do go over that that we end up damaging the stock. That is why you see the alternatives written there the way they are such that if the total ACL is exceeded and the species is overfished, that there is a payback. That has been the council's preferred alternative for dolphin and wahoo I think and the mackerel species.

MR. HARRIS: I just had a question for Michelle. If they overfished their allocation but the overall ACL is not exceeded, then there is no payback. If they overfish their allocation and exceed the ACL, who pays it back, both sectors?

DR. DUVAL: No, whoever exceeded it. If the commercial sector exceeds its ACL and the total ACL is exceeded, the payback comes from the commercial sector.

MR. JOHNSON: Thank you for that clarification, Michelle. I think to me the overfished language in there just sort of allows for some of the uncertainty in stock assessments, but that is just me.

MR. HULL: Does this motion reflect what Michelle was describing as what the council is looking to do? Okay.

MR. JOHNSON: Okay, we have a motion and we need to go ahead and vote on it. All who are in favor of this motion; all opposed. Okay, somebody is not voting folks, come on. There are more than three of you in the room. Let's do it again. **All in favor of this motion, hands held high, five; all opposed, five.**

MS. BROUWER: You get to vote.

MR. JOHNSON: **I'm going to oppose it as well.** Does somebody want to make an alternative motion? You can't just say no.

MR. ATACK: Well, since that one didn't pass the next option I guess is Subalternative 2C; unless you guys don't want to look at a total overage versus just a commercial overage on payback.

MR. JOHNSON: Okay, do we have a second on this motion? Rodney second that.

MR. WAUGH: I sense some concern and discomfort. Let me just maybe try and help with that. Biologically if a stock is overfished, you want to make damned sure you are not allowing the catch to go too high. If it is not overfished, then you can tolerate a little bit more overage; certainly not every year because if you do, then you are going to drive the stock back down.

The idea here with this alternative is the council is going to monitor it. If a sector is exceeding its ACL, then they are going to change the management measures to keep them within their ACL. What this does is it only triggers the payback if it is biologically necessary. That occurs if the total ACL is exceeded and if the stock is overfished. It addresses that biological concern.

There was an example in Coastal Migratory Pelagics Amendment 18 when we set this in place for king mackerel, Spanish mackerel and cobia that addresses Rob's point. It lays out an example to show that if there is an overage and it triggers a payback, the sector causing the overage pays back.

You don't get into a situation where the recreational guys are paying for a commercial closure or vice versa. The idea for this approach came from our Mackerel AP. They are the ones who suggested this. I just thought that would help address the biological concern.

MR. JOHNSON**: Okay, we have a motion here. We're going to go ahead and vote on it. All in favor of this motion, hands held high; any opposed? The motion is approved**. On that note I'm going to make a motion we go to lunch and return here at 1:40.

The Snapper Grouper Advisory Panel of the South Atlantic Fishery Management Council reconvened in the Crowne Plaza Hotel, North Charleston, South Carolina, Thursday morning, April 10, 2014, and was called to order at 9:00 o'clock a.m. by Chairman Robert Johnson.

MR. JOHNSON: Lunch is over, guys.

MS. BROUWER: All right, we're going to move on. We're on Action 5 of Amendment 32. This is an action that would specify the accountability measures for the recreational sector for blueline tilefish. Again, Alternative 1 is no action, so it explains what the accountability measure currently is for the deep-water complex,

That accountability is if the ACL is exceeded, then the following fishing season gets reduced by the appropriate amount to make sure that the ACL is not going to be exceeded that next year.

There is no in-season accountability measure for this complex. Alternative 2 then presents several subalternatives for the post-season accountability measure; the same thing that we had for the commercial.

There is a payback under Subalternative 2A if the species is overfished. I shouldn't say a payback; the post-season AM is triggered, which would be to reduce the – I'm sorry, it is the recreational ACL, so it is a payback. It is a payback if the species is overfished under 2A; only if the total ACL is exceeded under 2B; then again under 2C only if the total ACL is exceeded and blueline tilefish is overfished. This is the same thing that we had for the commercial.

Then here is the alternative that would put in an in-season accountability measure for the recreational sector; and that would be if it looks like the landings are going to be meeting the ACL, then there is an in-season closure for that sector. Again here the council doesn't have preferreds.

MR. JOHNSON: Okay, folks, there we have it. Does anybody want to take a stab at this one and choosing a preferred?

MR. ATACK: Well, if we're going to be consistent with what we did for the commercial, Subalternative 2C is the same for the recreational as the commercial. Alternative 3; I mean they don't get the recreational landings usually compiled fast enough to know whether you're going to have an in-season closure or not. You find out the next year. I would recommend that we go with Subalternative 2C for our preferred alternative.

MR. JOHNSON: Do I have a second? Seconded by Bill. Do we have any discussion on this motion? Red.

MR. MUNDEN: Comparing Alternative 2C for the recreational fishery with 2C for the commercial fishery; I see that under the recreational alternative 2C you would reduce the length of the season and the recreational ACL the following year. My question for staff is why would you reduce both the season and ACL for the recreational fishery and not the commercial?

MS. BROUWER: I don't know.

DR. CHEUVRONT: The reason why they don't do that for the commercial fishery is because it is controlled by the ACL. The length of the commercial season is going to be closed as they get close to or meet the ACL. There really isn't a specific length of the season commercially. What happen is, of course, with the recreational fishery you are at least six weeks behind the landings when you know what you've got.

With the commercial fishery, they can project out much more quickly and much more accurately because of trip tickets and things like that. Can I address the comment also about Alternative 3? Alternative 3 was put in there – and are going to see this when it comes up under the Comprehensive AM Amendment in a little bit here – is that there are actually scenarios where the recreational ACL is caught fairly quickly, like in the first or second wave.

If they know that recreational ACL is going to be taken up, if they don't have something like this in the regulation, then they would literally have to wait until the end of the fishing year. They

would have to knowingly allow them to continue fishing. That becomes a problem; because when you get two things like snowy grouper, then you've got a real problem because you know that 523 fish are going to get caught up in the first or second wave.

If you allow that fishery to go on throughout the entire calendar year, you could end up in a year with no recreational snowy grouper fishery. This was added by the council at the last meeting to give the Regional Administrator the opportunity to jump in and put the brakes on the recreational fishery if they look like they are going to be in that scenario.

I don't think that has happened ever with this fishery, but conceivably it could when you look at how much both sectors have been exceeding their share of the ACL and now the ACL is going to get reduced quite a bit. That is not a good thing. Choosing this is a good thing; not allowing the fishery going on is a bad thing.

MR. JOHNSON: **Okay, we have a motion; Subalternative 2C under Action 6 is our preferred. We can choose two preferred, right? We've got a second on this one; we can go ahead and vote. All in favor. The motion is approved.** Would somebody like to address Alternative 3?

MR. MUNDEN: So moved, Mr. Chairman.

MR. JOHNSON: Seconded by Rob. Do we need any discussion on this? I think Brian did a great job of explaining it. **All in favor of this motion. The motion is approved.** This next action I have a little bit of problem with, because we don't have any blueline tile fishermen on this panel. Well, I'm talking about for the commercial sector, Rob. It is almost tough for us to know what a trip limit would be; you know what I'm saying, what they need to make a trip economically viable; unless there is somebody on staff that wants to give us direction.

MR. COX: With the gray tilefish, with the tile fishery it is – like I said, again it is mostly caught in North Carolina through the longline fishery. What they would like to see done here is to have a 1,500 pound to a 2,000 pound trip. That gives those guys enough fish. A lot of this was coming from Dewey Hemilright. He said that 1,500 pounds is what they need to make a trip.

They would like to have that fishery in the spring of the year when the fish are worth the most money; and that's why you see some of these different alternatives here. During the Lent time is when they would like to have access to it. Then after 75 percent of that quota has been caught, then it would go to the hook-and-line sector, because the guys like me and in Morehead and through the rest of North Carolina and some of you guys in Florida interact with that fishery; and we need that.

Those fish are coming out of 30 fathoms in deep water when we're out there catching snowies and other species, so we need to be able to interact with those fish; but we normally don't catch – we won't pack 50 pounds a trip per boat. If that helps at all; I hope so.

MR. FEX: Yes, question to Jack; what is the price that they're getting paid average for the fish and what other fish are they catching; are they catching rose perch or anything else?

MR. COX: Yes; we catch a few of the rockfish and the scorpion fish and things like that; but mostly it is the big pinkies, the snowies. Now the guys that are longlining, that is all they catch; there is no bycatch on that. They've had an observer program working that fishery. That is all they're catching is straight tilefish; but they are graded. They have a one to three, which is a small and then a three to five, and the five is up into the larger; so they are averaging about $2.50 cents a pound.

MR. ATACK: I don't see – I guess what I think you're asking for is one of these alternatives, if I understand you correctly. You were saying you wanted a 1,500 pound trip limit in the spring. What is your definition of spring? This talks about January to April; I don't know if this is January 1st until April 1st.

MR. COX: Well, I'm not going to say anything towards that because after the port meeting I attended in Dare County, some of the guys at Wanchese wanted to see – they wanted different things here. Some of them were saying that they wanted the fishery to start in January and some of the other guys wanted to see it later into spring.

MR. ATACK: Yes, because the way this reads, it is like 100 pounds. I'm not sure if it is to April 1st or until the end of April and then 80 percent versus 75 percent. But I guess we can come up with our own criteria on what percentages and dates, I guess, Myra? I guess the exception there is he was saying 75 percent versus 80.

MR. JOHNSON: Do we have any other discussion? Does anybody want to take a stab at this one?

MR. MUNDEN: I move Alternative 2, Subalternative 2A.

MR. JOHNSON: Seconded by Jim. Any further discussion here?

MR. HARRIS: I'm just wondering if somebody could tell us from staff. The commercial sector; where are the majority of the landings coming from, is it North Carolina?

MS. BROUWER: That is my understanding; North Carolina has the bulk of the commercial landings.

MR. STIGLITZ: What happens if we don't do anything and it stays status quo? I don't know what the status quo is.

MR. JOHNSON: There is no trip limit so the fishery would open up and then it would close when it was projected to be met, which would end up with a very short season.

MR. MUNDEN: To provide a little insight on Rob's question – and Michelle may want to weigh in on this – I was involved with the management of the blueline tile fishery several years ago. A few of the guys would slip up into Virginia and fish for blueline tiles. That is why we're getting 2 percent of the landings showing up along the Atlantic Coast but not from North Carolina. But it is quite a run for them; and they really won't go up there unless they cannot fish in North Carolina waters, as I understand it. Now, once the season closes, they still may be going up there because the Mid-Atlantic does not have an FMP for blueline tilefish.

MR. JOHNSON: **Okay, any other discussion on this motion? All in favor; any opposed? The motion is approved.**

MS. BROUWER: Okay, Action 7 looks at management measures for the recreational sector. Here again the council does not have a preferred. Currently blueline tilefish is included in the aggregate grouper bag limit of three per person per day. The species on the screen are the ones that are included in that aggregate. Alternative 2 would just remove it from the aggregate grouper bag limit. Alternative 3 would establish a bag limit of one per person per day; and Alternative 4 would establish a vessel limit, so it would be one per vessel per day.

MR. HARRIS: I would move to select Alternative 2.

MR. SMITH: I'll second that.

MR. JOHNSON: Okay, we had a motion by Rob; second by Rodney. Any discussion? Yes, can you explain why?

MR. HARRIS: Yes; because it just causes problems for the fishermen because it is in there with the grouper and there are other things that are in there with the grouper; and establishing a one blueline tilefish per vessel makes it so that we can go out deep-dropping and catch two fish, period.

MR. JOHNSON: You have another alternative there that would be one tilefish per person per day.

MS. BROUWER: Just to clarify; if you simply remove it from the grouper bag limit, then there would not be a bag limit for blueline tilefish. Is that the intent?

MR. JOHNSON: Do you want to have a longer fishery or do you want to be able to go catch them all quickly? I don't see a problem with removing them from the aggregate limit but they need a limit, in my opinion.

MR. ATACK: Is there any kind of idea of if we have one or two per person or one per vessel, what kind of season there would be?

MS. BROUWER: No, because we don't have an ACL in order to be able to run those analyses; not until after the SSC recommends that.

MR. DeMARIA: Let's see if I understand that. Alternative 2 then there would be no limit, you could fill your boat, sink your boat with them. Okay.

MR. SMITH: **Can I rescind my second to that? Yes, you can. That is what I thought I could, because I am mistaken. I was in favor of Alternative 3.**

MR. WAUGH: Myra, if you would put Table 2-2 up there, please. We have asked the SSC to consider setting the ABC, the equilibrium yield at 75 percent of Fmsy. That value; that is what is

going in the emergency rule. We're asking them to allow us to set that for the next two years until we get the next stock assessment. In the past they've gone along with similar requests.

If we get that, that recreational ACL is about 112,000 pounds. If you look at Table 2-2, you can look down that table, and it shows that in 2012 the total landings on the recreational side were 88,000; so you would be below that. But if you look at 2013, the landings were exceeded in the first wave. It implies that you need to have some reduction in the existing bag limit in order to make sure that your recreational sector does not go over its ACL.

MR. ATACK: That would be three per day would be the current bag limit per person. By allowing that, you can hit this first wave like you're showing it. If you want to reduce that wave by a third, then you would need to have one per person, I guess.

MR. HARRIS: How reliable is that Wave 1 for 2013?

MR. WAUGH: We all know the concerns over MRIP numbers, but those are what go into the assessment; those are what are going to be used to track and close your fishery. Regardless of how warm and fuzzy we feel about it, that is what is going to be used.

MR. JOHNSON: I guess the question we have to ask as a recreational sector is do we want to have a longer fishery or do we want to have a short fishery and be able to retain more fish per trip? That is the question we have to ask.

MR. WAUGH: Sorry, again just one point. Remember now for the last several years – and you will see this with snowy grouper when we talk about this in a minute – we've consistently exceeded the recreational allocation. Now this recent lawsuit with regards to red snapper in the Gulf is likely going to raise more attention to this. We're going to be less able, most likely, to continue to allow the recreational sector to continue to have these large ACL overrides.

MS. BROUWER: In addition to that just to remind you, the council is mandated by law to end overfishing. These management measures are designed to put in place the appropriate reduction in harvest in order to accomplish that. The council doesn't have a choice.

MR. HARRIS: Yes; and I think this brings us full circle back to the problem about identifying who our anglers are; and the problem with MRIP is it does not properly do that. When I see one year group that says 153,000 and everything else is pretty much in line; I'm thinking there is a problem with this system that means that we really need to identify who our anglers are.

Because I don't believe that— Wave 1 is, what, January, January/February; so in the windiest, nastiest weather of the year we went out and we caught more than we did the entire previous year by the recreational anglers. Is there somebody here that believes that is a valid number?

MR. JOHNSON: No, but we are not here to discuss the validity of MRIP, unfortunately, because we would be here until next week. But what we are here to do is look at the numbers and try to figure out how we want to set up our fishery within those numbers. We've got a motion on the floor; we can go ahead and vote on this motion.

MR. SMITH: Hold on, no, Chair; I rescinded my second.

MR. JOHNSON: That is right; I'm sorry, Rodney. The motion was to recommend Alternative 2 under Action 7, which was to remove blueline tile from the snapper grouper aggregate bag limit. There is no second. If we don't have a second; does somebody want to offer up an alternative motion?

MR. STIGLITZ: I make a motion that we use Alternative 3, one fish per person.

MR. JOHNSON: **Do we have a second; seconded by Kenny. Do we need any further discussion on this motion? This would establish a one fish per person per day limit for blueline tile. Is there any discussion on this motion? Is everybody comfortable with the motion, they understand it? Let's go ahead and vote. All in favor of this motion; any opposed? The motion is approved.**

MR. DeMARIA: I would like to know what Rob wants out of this; what would you want?

MR. HARRIS: Me, personally, because of the fact that when we were allowed to have up to three per person and we still weren't meeting our ACL; I don't see where going to one per person is going to extend my fishing season or help me achieve my ACL.

MR. JOHNSON: The ACL is going to be severely reduced under this new rebuilding plan. I think that is what we needed to take into consideration. It is going to be so much less.

MS. BROUWER: Moving on to Action 8; this is one that would establish a rebuilding plan for blueline tilefish. Because the assessment results indicated the stock is overfished, then the council is mandated again by the Magnuson Act to put in a rebuilding plan. However, Regulatory Amendment 21, which we discussed yesterday, would change the definition of that minimum stock size threshold, which in the case of blueline tilefish would change the status to not overfished; in which case the council would not be required to put in a rebuilding plan.

Because Regulatory Amendment 21 has not yet been approved; we were advised by NOAA General Counsel to go ahead and leave this action in this amendment. You see that the little paragraph under the action simply explains what I just told you and there are no alternatives or anything under it. It is basically there as a placeholder just for now, until a Regulatory Amendment 21 is implemented. Does that make sense to everybody? That is it for Amendment 32.

MR. JOHNSON: Thank you, Myra; we're going to move on to Regulatory Amendment 20.

MR. WAUGH: How we were going to walk through this was first just talk about some of the background that begins on Page 26; and this is Attachment 6, the discussion document for Regulatory Amendment 20; and then come back and talk about the purpose and need, if you want to weigh in on that, and then just step through action by action.

If we first turn to Page 26, this reviews some of the assessment history. Going back when they were first assessed, it was based on catch curve analysis; those estimates in the late eighties, early nineties up through '99 range from 5 percent to 10 percent SPR, spawning potential ratio. The overfishing definition that the council was using at that time was 30 percent SPR.

They were consistently overfished throughout that time period. Then the first stock assessment was done in 2004. The results indicated that the fishing mortality first exceeded Fmsy in the mid-seventies. Overfishing continued throughout the end of the assessment period, so that is consistent with those earlier assessment results.

During that time, the population declined to levels below the biomass at MSY starting in the early eighties. SEDAR 4 concluded that the stock was overfished and experiencing overfishing in 2002. As a measure of that we look at the biomass ratio, which is the spawning stock biomass in the last year compared to the biomass at MSY.

If that is above one, we're not overfished; and it is 0.18 so that indicates pretty severe overfished status. Then as far as overfishing, you compare the current fishing mortality to the fishing mortality at MSY. If that is below one, then you are not overfishing; and it is three. That indicated quite a bit of overfishing and the stock was overfished.

In 2013 another SEDAR assessment, using a standard, data through 2012; recreational landings from the Florida Keys were included in post-stratification methodology to separate Florida West Coast from the Atlantic and Gulf areas. This will become important when we talk about how we track quotas.

The results will be reviewed by the SSC in April. Again, just like the blueline assessment, we don't have the SSC weighing in yet; and I'll tell you where we have an indication of where they're going but those conclusions won't be final until they meet at the end of this month. The conclusion out of this stock assessment is that the results suggest that the spawning stock declined until the mid-nineties and then increased gradually over the last decade.

The terminal or the 2012 estimate of spawning stock was below the spawning stock biomass at MSY. The ratio was 0.49, so we've improved as was the median estimate. The stock remains overfished, but we're seeing improvement. The estimated fishing mortality rate has exceeded our overfishing level for most of the assessment period, but then only once in the last six years.

That one overage occurred in 2012 when the recreational fleet exceeded its quota. Still, the terminal estimate, which is based on a three-year geometric mean, is below Fmsy in the case of the base run; and so this shows that the stock is not yet recovered but it is no longer experiencing overfishing; so we've corrected our overfishing problem.

That overfishing ratio has gone from slightly over 3 now to about 0.59. That is significant progress, and now we're waiting for the biomass of that stock to rebuild. We've got the amendment history there, the history of management. Therefore, you can see what the regulations, how they changed over time.

I just wanted to touch on the timing. You are reviewing this now and providing your recommendations to the council. The SSC will review the assessment later this month, and the council will get both of those results at their June meeting and approve the regulatory amendment to go out to public hearings.

Those will be conducted in August. Those dates and cities are pretty much set. We're still working on some of the specific locations. Then the council will review public hearing comments, modify the amendment as necessary, and approve for formal review and implementation in September.

We hope to get it in October/November and get it implemented as soon as we can in 2015. This will be your only opportunity to look at this other than during the public hearing process, attending those, and/or commenting. We can certainly provide you another opportunity to review this via mail; and as was suggested earlier, we can schedule a conference call if you all would like to see that document once it goes out to public hearing.

Obviously, it will have a lot more analysis in it. We've got some information now that will give you a general idea of what the impacts of some of the measures are, but that won't be final until we get the complete amendment done. Are there any questions on that background before we start moving through the document?

Okay, then on Page 3 we've got the purpose and need. Again, this is here for your information. The purpose for the proposed action is to adjust the rebuilding strategy, the acceptable biological catch, annual catch limit, maximum sustainable yield, minimum stock size threshold, optimum yield, and revise management measures for the snowy grouper component of the snapper grouper fishery. These adjustments address recent stock assessment results based on data through 2012.

The need for the proposed action is to prevent overfishing and continue rebuilding the stock, while minimizing to the extent practicable adverse social and economic effects. I don't know if you all want to weigh in on that or not. No, okay. Then Action 1 deals with adjusting the rebuilding strategy. Right now the rebuilding strategy is shown there. It specifies maintaining a modified constant fishing mortality rate at F equals Fmsy throughout the rebuilding timeframe. Part of this has us tying back to what we used to call the TAC, total allowable catch.

That is what predated the ACLs. Some of you probably remember that. We adopted that TAC for 2009 and just made that the ABC; but we don't actually set that relationship in place; and so that is what we're doing in this amendment. Alternative 2 would define a rebuilding strategy for snowy grouper that maintains a constant fishing mortality rate equals to F rebuild throughout the rebuilding timeframe.

Year One would remain 2006, so we're not changing the timing that we're using; and yield at F rebuild and ABC projections will change with each assessment. In a minute I'll show you how these numbers change under these three alternatives. Specify a probability of success of 50 percent or what the SSC recommends based on the ABC Control Rule; and the ABC would change each year until 2019. We've gotten rebuilding projections for 2015 through 2019.

The council had the flexibility to use three years or five years and they decided to use a full five years. Preferred Alternative 3 would use the same strategy of constant fishing mortality rate, but use F equals 75 percent of FMSY. We've done that in a number of fisheries, and that is what we're asking the SSC to consider here.

You will see how it is very close to what would likely come out of their applying the ABC Control Rule. We think there is a good probability that they will accept this and provide the

flexibility to adopt this. Still Year One remains 2006. Then Alternative 4 is the same thing except using F current.

How do you gauge what that wording means? If you look at Table 3, this equates to Alternative 2. Let's focus in on this five-year ABC, because those are the time periods that the council is comfortable making those projections out to. This table shows a full time series. What this is saying is that if you go with this Alternative 2, which is using at F rebuild, in 2015 your ABC could increase to 194,423.

Then each year it would increase until in 2019 it got to 242,296 pounds. That would have a 50 percent probability of rebuilding by the end of the rebuilding time period. We have to have it rebuilt by 2039. That alternative has a 50 percent chance of rebuilding. If you specify what is likely to come out of the control rule, it is likely to be close to 70 percent.

If you look at a time series that has about a 70 percent chance of rebuilding, then you can see that your numbers are a little lower than with the 50 percent, but you have a much higher probability of rebuilding at 70 percent. If you look at Table 2, the numbers are in between these two. Preferred Alternative 3, which is the one at 75 percent of FMSY, which we think the SSC will agree with the council on using; these numbers are in between those that you get with a 50 percent probability and a 70 percent probability; and indeed we have about a 69 percent probability.

That is why the council is requesting the SSC to allow them to use this F equals F rebuild, 75 percent of F rebuild, because it comes extremely close, 69 percent probability of rebuilding versus the 70 percent that would likely come out of applying their control rule. I know that is a lot of numbers to throw at you.

Table 3, which is Alternative 4 is slightly lower. It has a 63 percent probability of rebuilding. What we're asking the SSC to approve is Alternative 3. Using these numbers, we feel that is a reasonable approach and has a 69 percent probability of rebuilding at the end of the rebuilding time period.

MR. JOHNSON: Gregg, what is the danger of choosing the other alternative, Alternative 2? It allows for the fishermen more catch in a shorter period of time. I know the probability of rebuild is only 50.2 percent; is that the danger?

MR. WAUGH: Yes; if you specify a 50 percent probability of rebuilding, then you just basically have a 50/50 chance of being there at the end. These numbers are higher. The SSC is going to be looking at the results they get from the control rule, applying the control rule; and that is likely going to come out at 70 percent. I would doubt that they would recommend something that has this low a probability of rebuilding.

MR. JOHNSON: Will this be addressed – when they do a new stock assessment; will the council look at this again if you see the stock is rebuilding faster than anticipated?

MR. WAUGH: Yes; we will look at this, and indeed that is what has happened here; the stock appears to be rebuilding faster. Remember, our current ABC is about 102,960. Under the

alternative that sets it at 75 percent of Fmsy, you are going up by about 60 percent in Year One. By Year '19 you are over double where we are now.

MR. JOHNSON: Does anybody else have any questions about that? Okay, he's done a great job of explaining it to us so does anybody have a preferred here?

MR. HULL: I would make a motion to accept the Preferred Alternative 3 from the AP.

MR. JOHNSON: That is seconded by Don. Do we need any discussion on this motion?

MR. FREEMAN: Currently I've heard numbers thrown around that we are ten years ahead of schedule; is that correct?

MR. WAUGH: I don't know if Mike can address that; I've heard that as well. Ben has said that before. Ben may be able to give you an explanation of how that argument is being made. I'm sorry; I just don't know.

MR. HARTIG: It came right out of Kyle Stricter's mouth. I took it from the analyst who did it who said we're ten years ahead in our rebuilding schedule. That is where I got it from. I picked up on that one pretty quickly. While I've got the microphone, Gregg, I do want to ask you a question.

It bothers me from time to time as we go through these assessments; in the last assessment we had an MSY of 313,056 pounds and now we've got an MSY of 418,600. It is going up and that is good, but my understanding – I need a little bit of help – MSY is supposed to be your long-term average, which is sustainable for the fishery through time.

Now when you are in a rebuilding plan, is this what happens? Your MSY changes as you get closer to your rebuilding target? I have never understood, and maybe I'm asking the wrong person, but why MSY changes like it does?

MR. WAUGH: Before Mike answers that specifically, to me it reflects some of our uncertainty and lack of understanding about stock status, too. If you think back to king and Spanish mackerel, how each time we got a stock assessment, our understanding of the productivity of those stocks and the resulting MSY estimates changed quite a bit.

DR. ERRIGO: Okay, so there are a lot of reasons why the MSY number would be different between two different stock assessments. I'll talk in general and then about snowy in particular. In general, Gregg is right, there is a lot of uncertainties. The numbers are never going to come out exactly the same.

The more information we get, the more years of data you add, the better understanding we get of how productive a stock is, the better we can refine those numbers. Productivity can change over time. The composition of the stock could change; changing the productivity meaning the maximum sustainable yield can change.

The number of large individuals or old individuals in the population can change, and that would change your MSY estimate, your long-term MSY. If the environment changes and it can't

support the same type of recruitment, then that would change your MSY estimate over time. For snowy in particular, there is another confounding factor in this assessment as opposed to the previous assessment.

When SEDAR 4 was conducted, there was in no way on the recreational side to break out the Monroe County landings of snowy and add them into the South Atlantic landings for that assessment. All landings from Monroe County were ignored; they were given to the Gulf. They were not added into the SEDAR 4 assessment.

In SEDAR 36 we were able to take out Monroe County landings, because a method was developed after that for breaking out landings by county; and so we were able to parse out the recreational landings. Those landings were taken out of Monroe County and put back into the South Atlantic landings, added into this assessment. Those added landings are going to change the estimates of biomass overall, which will change all the numbers in some way. That could also affect the estimates of MSY. That is something in particular to snowy.

MR. JOHNSON: Okay; do we have any other questions for Mike or Gregg?

MR. HULL: On the case of snowy and a rapidly rebuilding biomass; we just had a stock assessment; and in general I think there is a maximum of five years is what we're looking at; distance between assessments. Let's say that it is five years until the next assessment, which you have projected out to five years – well, I just answered my question, in five years we're looking at it again.

MR. WAUGH: Yes; and that value in 2019 would stay in place until changed. Ben raised a good point about what the long-term MSY is going to be, what the real MSY is going to be; but in 2019 you are at 242 and the MSY is 357. Again, that is closer and you would expect if this rebuilding continues to take place ahead of schedule; then when we get the next stock assessment, we may be able to go right to something like the long-term yield of 75 percent of Fmsy; and then that would be your long-term stable yield.

MR. JOHNSON: If there are no further questions, we'll go ahead and vote on this. All in favor of this motion; any opposed? The motion is approved.

MR. PHIL CONKLIN: Is there a rebuilding like a season; like a split season for these snowies, or is it when you catch them, your done?

MR. WAUGH: Right now it is not split. We've got some alternatives in here that we'll be talking about in a minute; but right now it is just one ACL commercially. If we move on to Action 2, if you assume that the SSC is going to approve what the council has asked them to be able to use that ABC yield at 75 percent of Fmsy; that gives us some numbers that we can put in here; and indeed that is what we've done for Alternative 2.

Where we are right now is the ACL; that is whole weight, 102,960. What was implemented was gutted weight values; 82,891 pounds on the commercial side, 4,363 on the recreational. The allocation is 95 percent commercial/5 percent recreational; and we'll talk about that some more in a few minutes. The commercial ACL is 82,900 pounds. They rounded it from the 82,891.

The recreational allocation is 4,400 pounds. We tracked that in numbers of fish; and that is where you get your 523. Again, when we adopted those values from 17B, by default we set the ACL equal to ABC; but we haven't done that for snowy like we've done for others. That is what we're proposing here in Alternative 2 is to specify that ACL equals the ABC equals the OY.

Then over that five-year period, this would be your values. Some of these numbers need to be updated. The recreational estimated numbers of fish was calculated using the same ratio of numbers to whole weight as is currently used. That will need to be updated some. These numbers will change a little bit in terms of our estimated numbers of fish; but that gives you an idea of what is going to be the recreational ACL in numbers of fish and the commercial ACL here. Alternative 3, just like you've talked about before, is then setting it at some level below the ABC, 95 percent, 90 percent of the ABC or 85 percent. We're looking for your recommendation on which alternative to select.

MR. JOHNSON: All right, folks, does anybody want to take a stab at this one, choose an alternative?

MR. WAUGH: You might not like the numbers; but they are higher than where we are now, and the most liberal we can be is Alternative 2 to set the ACL equal to the ABC. Alternative would step it down and create a little bit of a buffer.

MR. FEX: I choose Alternative 2 as our preferred.

MR. JOHNSON: S**econded by Phil. Anymore discussion? We're going to go ahead and vote. All in favor of Alternative 2; all opposed. It is approved.**

MR. WAUGH: The council has no preferred alternative; and again Action 3 is linked to Action 4. At the council meeting there was discussion about how to try to spread out this commercial season and how to deal with the different catch rates in seasons north to south. They spent a lot of time developing the alternatives under Action 4, which is to modify the commercial trip limit. As you'll see in a few minutes, some of these got pretty complex.

In fact, Alternative 4 is so complex that when the IPT met and talked about how they might be able to parse out the data to do this analysis, the recommendation coming from the IPT is for the council to remove this alternative because it would be very difficult if not impossible to analyze. At the council meeting, after discussing all of this, they then talked about an alternative that would – as was stated there – basically achieve the same goal, but in a much more simple way.

We've structured the document to deal with this issue of splitting the commercial fishing season. Then if they choose an alternative under 2 here, then it would be presume then we wouldn't go forward with modifying the other commercial trip limits. That is probably a little confusing, but the two actions are linked.

We're going to talk about this one splitting the commercial season first. If you see the utility in Alternative 2, then maybe you want to recommend no action on 4; but we'll come back to that. Right now the current commercial snowy grouper fishing season is a calendar year with no split. Then since we knew Phil was going to request this, we put in alternatives to split it; so we're splitting it with an equal split of the commercial ACL into seasonal commercial quotas.

The distinction here is there is one commercial ACL and that is set. What we're doing is similar to vermilion. Under this alternative we would split it into two quotas, two seasonal quotas. It is an equal division of the commercial ACL, but the time periods are not equal. January through April – again using the numbers from that alternative is yield at 75 percent of FMSY; the quota for the January through April period during 2015 would be 77,965 pounds; and then from May through December the remaining 77,965.

Any quota remaining from the first season rolls over to the second season, but then it doesn't roll over to the next year. Then within this, to look at trip limits of 100 pounds gutted weight, 150 pounds gutted weight, and 200 pounds gutted weight. The reason we're recommending that change is most of the trip limits are done on gutted weight; and so we just wanted to make sure and track that.

MR. PHIL CONKLIN: I would entertain the idea of a commercial trip limit with the vertical hook-and-line fishery; not the longline fishery but the vertical hook-and-line fishery of 500 pounds.

MR. JOHNSON: Do you want to add that as a subalternative?

MR. PHIL CONKLIN: Well, you could.

MR. JOHNSON: 2D.

MR. CONKLIN: Because the reasoning is that at that time of year, just speaking in general for the Carolinas and probably the whole coast down to Dade County, Broward, and Monroe whatever; it is so darned rough that if you do get some nice weather, you need to take advantage of it and give them a chance, because you're not going to have nice weather at that time of year.

MR. JOHNSON: I understand. I'm going to play the devil's advocate here just from what I heard at council meetings from different sectors. People from up in the Carolinas didn't like that idea, because they felt like the Dade County commercial fishermen had the advantage of good weather; and they would rather not see the higher trip limit on the front end of the split season especially. I don't really have a dog in this hunt; but I just thought I would throw that out there.

MR. ATACK: What I'm reading, too, is we've blown through the ACL two years and shut the season down the next year with a 100-pound limit, right; isn't that what we've done? There was a closed season in 2011 because of the 2010 landings; and 2013 was closed because of 2012, right; isn't that what it says?

MR. JOHNSON: No; that fishery has almost been year round. Somebody help me out that fishes for them. I think it closed in December one year, right, December 12 or something?

MR. WAUGH: Here are the numbers. Table 4 in your document shows that in 2013 it closed on August 10. In 2012 it closed December 19, but went over slightly, under slightly in 2013, if you call 2 percent – I think if we're getting within 2 percent, that is pretty darned good. Slightly over here, but you can see in prior years it wasn't met. Going back to 2006 it was.

MR. HULL: Just one comment from the point of view of having fish on the market, grouper; we've got the closure January through April. This does provide – even though it is a small amount of grouper, it does provide some grouper to the market during those months. Even though the weather is bad – I'm must speaking for my area I guess – it has been beneficial to have some snowy production during the regular spawning closure.

MR. FREEMAN: What are we on; the last three years of gags has closed earlier and earlier and earlier? We have an opportunity with snowies by doing a split season if we were to extend that season. Even don't back it up into May; maybe even extend it further down; you have an opportunity to have grouper go in through October, November, and December. Maybe that is another way to look at it and also is splitting it out further down the line maybe.

MR. JOHNSON: Right; and a lot of that will depend on what you set your trip limit at, though.

MR. PHIL CONKLIN: This time of year the market is so dad-gummed high that if you get some local fish in, the fishermen are going to get a bang for their buck. We were paying – to have fresh fish; we're paying a premium price, meeting what the imports are, and then exceeding it sometimes. People do want it; they will definitely pay for it. It doesn't matter; it could go out through the roof and price itself out of range; but if you keep it in perspective, you can make a pretty decent buck on it.

MR. FEX: I was at the meeting, too, and one of the concerns is if you have a trip limit of 200 pounds; you are probably going to meet the ACL before the end of the year with the new projections. The problem I would see with 500 pounds – and I understand your point – is probably in Florida – I'm just throwing this up – the guys can go out there; it would be more of a directed fishery. For 500 pounds they're going to go out there and try to hit them.

They are also hitting golden tile at that time, so they're really close to that bottom. If you threw 500 pounds, I would almost guess that it would probably close right along with the golden tiles; so that would be one of my concerns. Just thought I would throw that out there. I don't catch the fish, so it doesn't affect me.

MR. HULL: You are going to get 60,000 more pounds next yea; that is 600 boxes of fish. I think that 150 to 200 pounds, increase it a little bit, but I can't see increasing it to the level of 500 pounds. That is from my point of view. I think I could live with the 200 pounds. Since this will stay – whatever we choose is more than likely going to stay there for five years. If the council approves it, it is going to stay there for five years. Then the next year we're going to see some more; so I think the 200 might be a good number.

MR. PHIL CONKLIN: Well, part of the reason for the 500, too, is if we go with the 500 pounds and then it comes to the council, so be it if we get 50 percent of that, you'll be jumping up for joy.

MR. JOHNSON: I hear you; and not to muddy the water; but you probably could even look at having a different trip limit on different openings if you wanted to have more on the first opening. Like Jim said, you could adjust the second opening if you didn't want it to be May 1, you could back it up or something. It is entirely up to you.

MR. FEX: I didn't even think about the longliners. If they're out there laying the gear on soft bottom for golden tile, all they've got to do is put a piece over on some hard bottom and now they've got 500 pounds a trip. I would just throw that out again.

MR. PHIL CONKLIN: I made it specific for the vertical hook-and-line fishery only.

MR. JOHNSON: All right; does anybody have a preferred here? Does anybody want to make a motion?

MR. PHIL CONKLIN: Myra knows what I'm going to say; Subalternative D.

MR. JOHNSON: **Do we have a second on Phil's motion? Seconded by Robert. We can go ahead and vote on this one if there is no further discussion. All in favor of this motion; all opposed. That motion failed.** Does anybody want to make an alternative motion?

MR. FREEMAN: If we lock in on this and say that we say the 200 pounds quota or the trip limits of 200 pounds and each year for the next five years, if it is all approved, we are still getting increment increases; and we're seeing that the 200 pound limits maybe we're not hitting on it; can we adjust that at that point in time if we need to go to the 300, possibly?

MR. WAUGH: Sure; the council can change these trip limits in the intervening years after we see what happens. If it gets filled too soon, if it is extending too long under the new numbers, we can through the framework change trip limits.

MR. HULL: I would like to make a motion for Alternative 2, Subalternative 2C.

MR. JOHNSON: D**o we have a second to that motion? Seconded by Jim. Any discussion? All in favor of this motion; any opposed? The motion is approved.**

MR. WAUGH: Then we come to Action 4, which tries to address the same issue of spreading out the harvest and addressing the distribution north to south; but rather than splitting the season just using trip limits. As we talked about the current trip limit is 100 pounds gutted weight; Alternative 2 would modify the commercial snowy grouper trip limit from January 1 until the commercial ACL is met or projected to be met using 300, 200, or 150 pounds.

Then Alternative 3 would modify the commercial snowy grouper trip limit. I don't know where 150 came from. That should be 100 whole weight from January through April. No. Okay, what this is the IPT is proposing wording that we modify the commercial snowy grouper trip limit from the 100 pounds to 150 from January through April.

January through April, there would be 150 pounds and then a different trip limit from May through the end of the year. For that May through the end of the year, you would either have Subalternative 3A, a 50-pound trip limit; Subalternative 3B, 100 pounds. Then Alternative 4 would modify the commercial snowy grouper trip limit of 100 pounds whole weight January through April for all the areas.

That would remain at 100 pounds for all areas from May through August, from North Carolina through Cape Canaveral, Florida and south of Marathon, which this really means west of

Marathon as shown below; and then you would switch to 100 pounds whole weight May through August for the rest of the area.

From September through the end of the year until the ACL is met or projected to be met, the trip limit would be set at 100 pounds. The variable portion would either be 200, 250 or 300 pounds. Now, the IPT again looked at this and is recommending that this alternative not be analyzed. There are problems in splitting out the data at the Cape Canaveral Line and then splitting out south or west of Marathon.

This would be extremely difficult to partition the data. You would have to make some big assumptions that might likely negate the benefit of looking at this alternative. Those are the four alternatives under consideration. But, again, you couldn't do this in conjunction with Action 3. The hope is that the council, if they pick Action 3 and split the season; then here we will either remove this action or just choose no action alternative.

MR. HULL: I think you just explained my confusion because you said they were tied together. And because we just set a 200 pound trip limit previously, if that is approved; but if that isn't, then we would go to this and then this would be the one – okay, I'm with it.

MR. JOHNSON: Okay do, you have any discussion? Does somebody want to make a motion to deal with this alternative?

MR. FEX: Yes; can we put this in considered but rejected list?

MR. JOHNSON: **Do we have a second on that motion? Seconded by Jim. Do we need any discussion? I listened to this come about, and it was pretty complicated; above my pay grade. All right, we'll go ahead and vote on it. All in favor of this motion; any opposed? The motion is approved.**

MR. WAUGH: Let me just mention as you think about this more in analyzing any trip limits; Ben had asked us to put together the information that is shown in Table 5 and Figures 1 through 5; looking at distance from shore for traveling to the different areas. This will be used by the IPT to analyze those trip limits under Action 3. We're up to Action 5, which modifies the recreational bag limit.

MR. HARRIS: Mr. Chairman, if I could have a moment, because I've got to leave here in just a second. I've prepared a motion that in my absence Jim is going to read for me; But as you move into Action 5 and some of these follow-on ones, I would like for you to take a look at Table 8 that is here under Action 5; because this is something that obviously is near and dear to me and other recreational fishermen.

I remember back when there was a TAC and then we had to come through and painfully turn it into an ACL, which the ACL, the allocation was disputed heavily by myself; and we ended up with the allocation that we have right now. At the time that we did that and the council approved it and moved forward with it and we have what we have now did a great disservice to the recreational fishermen of the South Atlantic. This table right here shows that. We are still operating under that disservice.

All these numbers and figures that you are about to read for the bag limits and actions going forward are based on these numbers, which are not representative of what the recreational fishery does, did, or had done for years. I obviously will not be here for the votes that go forward; but keep that in mind as you do press forward and make decisions for the recreational fisherman again.

MR. JOHNSON: Thank you, Rob. He is referring to the allocation of commercial versus recreational.

MR. WAUGH: Rob is exactly correct; the council had a time series that they were using. We talked earlier this morning; I think it was tomtate was an example that was 100 percent recreational, because that is what the landings were. This is what the landings were for snowy grouper; and obviously you have concerns and Rob has voiced them about MRIP/MRFSS numbers from earlier years, but those are the numbers. When the council did that, the allocation came out 95 percent commercial/5 percent recreational. That is the allocation we have now.

MR. ATACK: Yes; and this table really starts in 2005, and '06 is when the trip limits and the ACLs went in for the commercial. They got cut back 275, 175, and 100 from '08 on. I'm curious with your claim as to what were the commercial landings 10, 15 years prior to that? They got a 95/5 allocation; there must have been some basis on it.

MR. HARRIS: There was. The time that we did that with Amendment 17, we had those numbers. The problem with those numbers was going back that far on the recreational side, there were zeroes, it read all zero. That is how we took those numbers and then we smattered in when they started getting some reporting for the recreational sector.

I remember Richard and I discussed this at great length. At the time I was pushing for a 50/50 split. Although the numbers based on having no data from the recreational side is where it was decided to go ahead and go with the numbers as they broke out, which was the 95/5. Now we have numbers that support more of what I was saying back then.

MR. ATACK: Yes; you have those reporting; but with the commercial cut way back; I'm curious as to what the landings were commercially. They are showing 220,000 in these years. Was it a million or 700,000 commercially? I'm sure they have those numbers. How much has the commercial sector been cut back in their landings prior to '05?

MR. HARRIS: I know that we saw that; and there was some drop in the landings, but I don't know that it was up in the millions. Those figures are still out there. The problem with them is that there was nothing to compare recreational figures with. There is no apples and oranges or apples and apples.

MR. JOHNSON: I know this issue came up at the last council meeting. It was raised by one of the council members. I think a motion would be appropriate to have them look back into it to see what basis was used for that allocation. Rob, did you want to go ahead and make that motion while you're here? You are free to do that.

MR. HARRIS: I just didn't want to bring in new business out of order.

MR. JOHNSON: Well, this wouldn't be out of order; we're talking about snowy grouper and we're on the recreational bag limit. Allocation obviously affects the bag limit.

MR. HARRIS: The motion that I had prepared was that I would move to adjust the snowy grouper allocation to historical levels, using 2005-2010 averages.

MR. JOHNSON: Okay; do we have a second for that motion?

MR. SMITH: I'll second that.

MR. JOHNSON: Seconded by Rodney. Rob's point is that this fishery used to be very important to the recreational anglers; and during the allocation process, they pretty well just got pushed out for the most part and the fishery was ended.

MS. BROUWER: I just have to remind you that the council has put off any discussion on allocations until after the visioning process is done. I'm sure they will consider your motion, but they are going to deal with the whole allocation thing all at once in a comprehensive amendment.

MR. JOHNSON: Do we have any discussion on this motion?

MR. ATACK: I guess I would like to see some data before I asked the council to go to those numbers in those five years, because I don't know what kind of impact – I understand what you're saying about the impact on the recreational, but I don't know how much impact has been made to the commercial based on the ACLs being implemented. Without that data, I would prefer – I mean, I could ask them to look into how the allocations were divvied up, what was the basis and see if that makes sense to what is fair for both groups.

MR. WAUGH: There is a Table 3 in the stock assessment; you can download this from our March Briefing Book. There is a folder for this regulatory amendment, and it has a stock assessment there. It will also be in the briefing book that is posted for the SSC. The time series of data starts in 1950 when we only had commercial lines.

MRIP doesn't show up any landings until '81; and that is at a level of 574,000 pounds. It is very variable; the MRIP is from '81. That 500,000 pounds never exceeded; and there were a couple of zeros in there. The last year of data is 2012 at 95,000 pounds. On the commercial side it starts out in 1950 at 130,000 pounds; that is hook and line.

Longline doesn't show up until sixties; really no meaningful longline landings until '82; '78 is about 45,000 pounds, '82 it jumps up to 100,000 pounds. At that time the commercial hook and line is at 500,000 pounds. In '83 you've got about 800,000 pounds commercial, 23,000 pounds headboat, 81,000 pounds recreational. The headboat sort of operated from '72 through '83.

The highest landings in that time period were about 24,600 pounds. The highest recreational landings from '81 on again was at 574. The next highest is about 266,000 pounds in 2005. The commercial hook and line drops off from 400,000 pounds in '82; in 2007 it was 111,000 pounds; and then drops down, because of all the regulations, below 100,000 pounds.

MR. MUNDEN: I would be a lot more comfortable with this motion if it listed or recommended to the council for them to investigate various time periods rather than this one eight-year time. We could recommend that they go back and look at landings every five or ten years going back in history as well as including 2000 through 2013 landings.

MR. JOHNSON: All right; so you can adjust that if you would like.

MR. DeMARIA: I think historically this was exclusively a commercial fishery in the beginning years, correct, Gregg?

MR. WAUGH: That is what the numbers show in the stock assessment, yes.

MR. DeMARIA: It has only been to fairly recent time that the recreational fishermen got into this. I have a little bit of trouble with this one with the recreational sector. Here is one fish that they are not getting the lion's share of and they are very upset about it. Do we want to go back and let's reallocate sailfish and snook and tarpon and redfish and everything else that the recreational sector gets 100 percent of?

Let's reallocate some of that to the commercial sector. I have trouble with this one. This is historically a commercial fishery. The recreational guys basically learned how to catch it from the commercial fishermen and now they want a huge share of it. I've got problems with this one.

MR. JOHNSON: Well, it depends on what you consider historically. I used to fish for these fish all through the eighties and nineties as a charterboat operator; and I'm sure I wasn't the only guy. I hate to go back to historical. I would rather look at a lot of numbers. I don't think Rob – I may be misreading him; I don't think he's asking for the lion's share. I just think the recreational sector thinks 5 percent is pretty small.

MR. SMITH: This is, of course, going to maybe wake up some of us. At one time we were allowed to hunt squirrels on the land and sell them, right, to pay our bills. In our neighborhood the only people that are hunting squirrels nowadays are the cars. You should see them; they are all over the ground everywhere you go. You drive down the road; there are a lot of squirrels out there, but they are not getting eaten or sold.

My point is that some of us might think – and maybe not anyone in this room – that all the fish should be allocated to neither commercial or recreational but to the creatures in the ocean. When we start talking about – I love it, Don is looking at me; where are you going with this; but when we start talking about what percent is whose, it is so blameish. There are others. If we started looking down the list, there are other fish that commercial get the majority of and vice versa. I don't stand with you on this one, Don.

MR. STIGLITZ: If we're going to go back to historical, let's go back to the historical. This was commercial fishing. Back in the seventies and eighties; there wasn't a recreational boat out there catching snowy groupers in 8 or 900 foot of water. They didn't have the equipment to catch them in the eighties.

I was out there catching them I the seventies and the eighties; and half the boats that were running around out there didn't even have bottom machines on their boats that would reach 800

foot of water and show you what was on the bottom. Today's equipment has made it so that the recreational sector comes out there and catches them.

If you're going back historical, you've put the commercial guys all the way down on their knees; and we've been told when this rebuilds, we are going to be able to do good. Well, we've been waiting for a long time for these rebuilds so we can go back out and make a living. I don't think we should give it up; I'm not willing to give it up.

MR. THOMPSON: I just wanted to say it was a recreational in our area. The headboats obviously haven't been able to fish for them since we went to one fish; but the headboats definitely fished for them in our area. Back then it was specialty trips and all that stuff into the early eighties; and so the fish just weren't really there anymore, so people quit.

The fish are there now to fish for them, but you can't even on a regular charter. It is really only private boats, like you said, the specialty of equipment, because people have got the deep-drop reels and spider wire and all that stuff has made it. But I agree with Rob; we need to get a little bit more allocation, not maybe percentage-wise; but we just need some more fish.

Whichever way we go about to doing that, I think both sides just want some more fish. One fish per boat for part of the year isn't cutting it with as many fish that are there, especially up this way, because we're not touching them. I don't know how we get there, but I think Rob is on the right thing. We're not trying to take from the commercial so much; we just need a little bit more for us, too.

MR. HARRIS: Well, in the recreational fishery we went from five per person until we woke up to three per person, to one per vessel. That is a pretty rapid change over a course of just a few years. If we look at things, we went from the wreckfish fishery, which was 100 percent commercial; we finally opened it up somewhat to the recreational folks; and we gave almost a better allocation to the recreational guys for the wreckfish fishery that was historically a commercial fishery from out of the gate.

We have a fishery such as the snowy grouper that has – while you may understand it to be commercially historical, I understand it to be both commercial and recreational historically. No, I've not been fishing as long as you, but I'm getting there. I've been catching them a long time also. The problem is me as a recreational guy; nobody ever counted my fish. They still don't count my fish. They tell me when I've caught too many, but they can't tell me where they counted them. That is part of the problem also.

We still haven't identified those of us that are fishing for them. To say it is historically commercial, I disagree. You just had the numbers because of the fact that you had the records that you support it, because you sell them. I catch a fish, I tell my buddies; hey, look at this great fish I caught, come on over and eat, and that is where it ends.

MR. JOHNSON: Okay, we could probably argue about this until next week, and I know some people have planes to catch and everything. In the interest of time, I think we need to probably do something with this motion. I understand everybody's point of view, and I think they all have valid points. We just need to deal with the motion if we could.

MR. WAUGH: You had asked for landings; here is a graph of the landings. The blue is the commercial, red is the recreational, and that combines the headboat and the recreational. They are shown here in the chart here. The recreational does have both in it, right?

DR. ERRIGO: Yes.

MR. WAUGH: Michelle asked me just to make the point, too, that the allocation was done looking at landings from '86 through 2006, like we did for a number of species.

DR. ERRIGO: One thing I just wanted to say; you'll notice like that huge spike in 1981 on the recreational side; that spike was smoothed in SEDAR 36. That comes from a single intercept in the Keys in Monroe County that caught two fish. I actually did see that record. These data include Monroe County.

When we made the original allocations, Monroe County landings were not included because we didn't have them. They were not used to track the ACL either. They were given to the Gulf; everything from Monroe County was given to the Gulf. Still, when the new ACL goes into place from SEDAR 36, all landings from the Keys and from Monroe County will be given to the South Atlantic.

MR. JOHNSON: Let's look at this motion guys and go ahead and vote on it. I think he wanted to modify it; remove the 2005 and 2010. Do you want to just remove the whole historical thing and just say just look at the allocation? I don't know how you want to word it, Rob. I think when you say historical, you are looking way back in time. If your intent is to try to get the entire fishery, then that is what they need to look at.

DR. DUVAL: Now you all know why we punted on this until after visioning. Just to address some of Rob's concerns; this is why I wanted Gregg to just let you know the span of years that was used to form the allocation. I'm glad that Mike noted that Monroe County landings or Monroe County recreational harvest was not used in calculating that allocation. Now in 2006 is when a lot of management changes came through for both sectors.

As Jim has noted, that is when the commercial trip limit dropped to 275 pounds, and then 175, and then 100 after that. The recreational bag limit was cut significantly. I probably shouldn't be jumping in here; but, Rob, I am just wondering if what you are asking is look at sort of what the historical average catches were by each of the sectors now that we have the ability to parse out the Monroe County data, give it to the South Atlantic prior to some of those really significant management changes coming into place. Is that kind of what you're asking, because I feel like both sectors have really been restricted by the management measures that were put into place to deal with the stock assessment that we had?

MR. HARRIS: That is exactly what I'm asking; because I know that when we originally talked about it during Amendment 17, there were even caveats and everything saying that it did not include any Monroe County data. That is why this Table 8 that we have up there is the first time that I've seen it including Monroe County data. If there is a way to capture that and include it going back historically, I think that is more what I mean.

MR. JOHNSON: Do we have any other discussion on this? Do we have a second to this; do we need to get a second to this new motion?

MR. WAUGH: It would probably be easier just to withdraw the first one and make a whole new motion.

MR. HARRIS: Reallocation to historic levels by reexamining allocations for snowy grouper; that way it is just all still the same motion, just including all the other stuff.

MR. JOHNSON: Seconded by Bill. Don.

MR. DeMARIA: What do historical levels mean; what years?

MR. JOHNSON: I think they are just going to look at a broad time series. **Okay, there is the motion, folks. All in favor of this motion; all opposed. The motion is approved.**

MR. WAUGH: Okay; so we were talking about Action 5, which is the bag limit. It is part of the recreational aggregate bag limit of three with only one snowy grouper per vessel per day. Let me just finish showing you a couple of tables too. It explains why we're looking at some of these restrictive bag limits.

Some of these numbers on the top of Page 23, pounds of fish got in there instead of numbers. If you look on the top of Page 23, the expected recreational ACL based on 75 percent of Fmsy increases from 523 fish to 834 fish in 2015; not 8,207. Then it gradually increases each year to 1,112 fish in 2019; not 10,943.

Those were poundage and that is shown in the table – I'll get the table for you where it was shown. If you look at recreational harvest – and this is what Rob was getting at – this first year is it was an allocation then we went to an ACL; but it has been exceeded every year except 2011. You can see sometimes the overages have been pretty great.

The tables that we were looking at before shows what those catches are over time. Table 9 is the one I wanted to talk about. In 2015 the numbers of fish would increase up to 834; increase each year to get to 2019, it would be 1,112 fish. If you look at catches in 2012; this is including Monroe County now as Atlantic because that is the data that went into the stock assessment.

In Table 9 it is showing that in the third wave, which is June, you've got 14,400 fish for a total of 16,627 fish. Under our existing bag limit, we greatly exceed even the increased recreational ACL. Based on 2013, the catches are lower, but you still are exceeding in that Wave 3, exceeding what we expect our recreational ACL to be.

Given that we can't continue to allow those big recreational overages, you come back – you've got a bag limit; right now it is one per vessel per day within the snapper grouper aggregate bag limit of three. We've got Alternative 2 that would modify the recreational snowy grouper bag limit from one per vessel per day to one per vessel per day May through August, but that won't keep you below the recreational ACL.

Alternative 3; some of the wording is changed in here after you changed the correct numbers of fish rather than using pounds; and I show that in red. Alternative 3 would change the bag limit to one per vessel per day during May and June with no retention the remainder of the year; but that still doesn't keep you below.

Alternative 4 would modify the recreational snowy grouper bag limit to one per vessel per day during May. That would not be expected to keep you below in the early years; but you would be right at it in 2019. Whether you do it one – and you can look at other time periods, but that seems to be a very popular time period to be targeting due to weather and all of that. So either May or June, having a one-month season with one per vessel per day would have a chance of keeping you below your recreational ACL in later years but not up front.

MR. COLE: I move approval of Alternative 4.

MR. JOHNSON: Do we have a second on that?

MR. SMITH: I'll second that.

MR. JOHNSON: Seconded by Rodney. Do we have any discussion? Alternative 4 and 5 I guess were the only two that had a shot at keeping the recreational catch under the ACL.

MR. ATACK: As an alternative, Gregg, I don't see a tag like a fish tag as an alternative. If you issued 523 tags; then you would only land 523 fish, right? Is that an alternative that we could consider?

MR. WAUGH: The council is looking at the use of tags in Amendment 22; so we're already looking at that. That is going to be longer term. I will let Myra explain to you where we are with that.

MS. BROUWER: All right, Jim, we talked about it on Tuesday. That amendment has currently been delayed because NOAA GC is supposed to get back to the council in June as to whether that tag program constitutes a limited access privilege program; in other words, a catch share. If it does, then there needs to be certain requirements. It needs to fulfill certain requirements in the amendment; so that is why we're on hold on that one.

MR. DeMARIA: Gregg, the numbers you gave us in the recreational take; that is based strictly on landings, right?

MR. WAUGH: That is correct.

MR. DeMARIA: It doesn't take into account that they will put down three or four hooks and bring up three or four fish and keep the biggest one and throw the others away?

MR. WAUGH: No.

MR. DeMARIA: We really don't know how many they're killing on the recreational side?

MR. WAUGH: Correct.

MR. ATACK: I guess back to the tag thing; if it wasn't limited access and they just did the one fish per vessel per day, then allowed everybody to have a tag or require everybody to buy a tag; then ship it in when they get their fish and attach it; it wouldn't be limited access, but you would have then the requiring sending in the tag. Then I don't think there would be anything about limiting access then, right?

MR. JOHNSON: I'm not sure; but I think that is a discussion for another amendment and not at this time.

MR. THOMPSON: I would like to see – I mean, your basic point would be mandatory reporting, which won't happen. Bluefins you have to; everybody knows you've got him at the dock and not everybody is going to know you've got a snowy. My problem with any of these alternatives, if we do get an allocation, we're stuck with a one-month season, period. If it happens to be rough that year, you are stuck with a one-month season. If you've got an allocation and total number of fish, you might as well give us as much time to go get them.

MR. JOHNSON: If the allocation changes; then they would look at changes to the season. I don't think you would necessarily held to just a one-month season.

MR. SMITH: Squirrel season in Florida is – but I have a point there; and that is where we're going. If you're going deer hunting, you are allowed two in some places, you are allowed three in others. That is the way it is. That is where we're going and we're making progress.

MR. ATACK: Gregg, should we reword it to where it starts on May 1; and then when it looks like the limit will be met, that the Regional Director could close the fishery?

MR. JOHNSON: You can't do that with MRIP; they come in waves; that doesn't work. **Okay; we've got a preferred up here, a motion. We need to go ahead and vote on this motion. All in favor; any opposed? The motion is approved.** Brian; do you need a minute to get set up? Yes, Rodney, go ahead with your hogfish motion.

MR. SMITH: I would like to make a motion; a moratorium on all hogfish landings until there is a stock assessment.

MR. JOHNSON: Does anybody want to second that? Seconded by Jack. Do we need any discussion on it? I think the intent of his motion – I don't want to speak for him -- is he is trying to pressure a stock assessment to happen.

MR. DeMARIA: I think it is only reasonable. We've got a lot of concern about these fish, especially in South Florida. North Carolina, without any kind of assessment, put a 300-pound landing limit on hogfish –

(Off the record discussion)

MR. DeMARIA: Whatever it is, my point was if North Carolina can put some limits on them and they are concerned about the stock; why can't we do something in Florida? We're trying to

be proactive and raise the size limit, but we're told we've got to wait for the stock assessment. North Carolina didn't.

MR. JOHNSON: Can I ask a question? Is this intended just for Florida or is this intended for the whole EEZ; what is the intent of the motion?

MR. DeMARIA: The whole EEZ.

DR. ERRIGO: I just wanted to give you guys an update. SEDAR 37 is currently underway. That is for hogfish. It is being conducted by the state of Florida. I don't know where they are in the process, but they are supposed to have the final product in August, which means the SSC will see it at their October meeting; and the council will see it in December of this year if it stays on schedule.

I do know that they have been having a lot of trouble with the mutton snapper assessment. I don't know if that is affecting the timeline for hogfish or not. It is not just on the schedule; it actually has a SEDAR designation and it has already been started. The assessments for hogfish have already started.

MR. SMITH: I would imagine – Mike, maybe you can help me on this – there have been limits on fish that don't have stock assessments, correct, size limits, seasons, numbers, allocation, annual catch limits and all of those things, correct?

DR. ERRIGO: We have that for all of our species.

MR. SMITH: Right, so basically we've been making rules for fish that we don't have stock assessments for, right? Okay, I just wanted to make sure.

MR. PERRETT: One of the reasons I seconded the motion – and again somebody could probably help me on this. There was SEDAR 6, 2003/2004 timeframe. That report showed that the maximum lifespan of a hogfish is about 23 years. They get up to 20 pounds. Out of that recommendation it came back I think it was overfished. The stock was experiencing overfishing and all those kind of things.

It also had a recommendation of a 20-inch minimum size limit with a bag limit of one, which would completely shut it down in the Keys, because they also said that the maximum length in the Keys was about – I don't know, it was less than 20 inches. Anyway, my question is when that SEDAR came out, why was there no action taken? This was back in 2004, and I thought we had to take action when we got a report that said we have an overfishing situation.

DR. ERRIGO: I can try to give you a brief overview of what happened over there; I wasn't around for that. I do remember going back and looking at what happened. That assessment; it wasn't conducted by the state of Florida; it was conducted by another organization. Forgive me, I can't pull the name of it out of my brain right now.

It was conducted by a separate research organization down in Florida. They put together the assessment and sent it to review. The reviewers had several concerns with the data and some of the assumptions that were made, which happens in almost all of the reviews. Typically what

would happen is the analysts would go back; and they would make some other runs and fix some stuff here or perhaps explain what happened here with the data and stuff like that.

They would come to a consensus about how the final base model would look. That would pass the review and then go on to the SSC, which would then pass their review on to the council. What happened in this one was once the assessment was completed at the assessment workshop phase, they passed on their report and basically washed their hands of the assessment.

When it got to the reviewers, they had several concerns which they found to be rather major concerns. Since there was no one around, no analysts there to address the concerns, which would rerun the model with some of these alternative runs that the reviewers really wanted to see; they could not pass it through the review, so that assessment did not pass review. The SSC got a report, and they got a review report; but since it didn't pass review, there was no ABC recommendation or anything like that. There was no recommendation to use it for management. That is why that assessment kind of just died at the review stage.

MR. SMITH: Mike, I just want to let you know, no blame there, because it kind of came off that way. Actually not putting on any blame, but I kind of feel like it is like your little sister and you're going, man, take her out. Oh, gosh, I was, and I told my buddy about it. But nothing is happening; she is still sitting at home and that is our hogfish there.

MR. JOHNSON: Okay, in the interest of time, here is the motion. Could you make that read until the stock assessment is completed; do you want to do that; because there is a stock assessment ongoing? Okay, let's go ahead and vote on this motion. **All in favor; all opposed. The motion fails.**

DR. CHEUVRONT: Okay; this is Snapper Grouper Amendment 33, Dolphin Wahoo Amendment 7. While Myra is pulling this up, let me give you a little bit of the history of why this amendment is even being considered right now. At the June council meeting last year, the council was approached by somebody involved in the dolphin and wahoo fishery who had noted that there had been some recent violations of vessels coming back from the Bahamas into the U.S. EEZ that were hauling dolphin as fillets.

The request then that was given to the council was, well, we can bring snapper grouper fillets back from the Bahamas; why can't we bring dolphin and wahoo fillets back? At the September council meeting the council decided, yes, let's go ahead and let folks bring dolphin and wahoo fillets back from the Bahamas just like they can snapper grouper.

Staff was given direction to come up with a one-action amendment that would basically mirror in dolphin and wahoo what is currently allowed in snapper grouper. We went to work on that and we came to the realization, well, it is not that simple. Largely it had to do with Bahamian regulations and a couple of things that had happened in the snapper grouper fishery in the United States since that original allowance for snapper grouper fillets into the U.S. EEZ went into place.

I think that went all the way back to Snapper Grouper Amendment 8; so we're talking back to the 1990s at some point. What we have now is the council still wants to work on this and get through some of the issues. Now, at their March meeting they were presented with a suite of

actions that looked at all sorts of different things that included even rescinding the allowance for bringing snapper grouper fillets back from the Bahamas.

The council quickly put the kibosh on that and said, no, we're not going to consider that. They want to keep that going; but what they ended up with was four actions. The first two actions in this amendment apply directly to dolphin and wahoo and allowing dolphin and wahoo to come back into the U.S. EEZ.

Now, what makes it a little big difficult is that snapper grouper in the Bahamas; all the species are lumped together. They refer to them as demersal species; and you can bring back either 20 fish or 60 pounds of fillets. That was what made it so much easier to deal with snapper grouper. When you get to dolphin and wahoo, they are part of a complex of dolphin, wahoo, king mackerel or tuna; and you can bring back 18 fish in any combination; at least you can land 18 fish in any combination in the Bahamas.

Well, the problem there is you are dealing with fish that are in disparate sizes. There were no pounds of fillets that you are allowed to bring back. The council was left with the problem how do we determine what the amount of fish is that somebody could bring back in terms of fillets? The first two actions in this amendment deal with how the council is considering with dealing with dolphin and wahoo fillet, and bringing them back.

This has been taken to the Dolphin and Wahoo AP earlier this month; but there are two actions that are directly related to snapper grouper; and the first one is Action 3. It looks like Page 18, but that is of the document page. The action that folks are concerned about is right now the fillets that are coming back from the Bahamas from snapper grouper; there is no requirement to have skin intact on those fillets; so there is no knowledge of what species folks are bringing back.

What the council has decided, they've chosen a preferred alternative is that for Alternative 2, they want to have snapper grouper fillets brought back into the EEZ from the Bahamas must have skin intact on the entire fillet. Preferred Alternative 3 is the same thing for dolphin and wahoo. They were split out just so that they could consider the groupings separately.

Currently the Alternative 1, no action, is that the snapper grouper fillets possessed in the U.S. EEZ from the Bahamas are not required to have skin intact. The reasoning behind this is if there are species of snapper grouper that are prohibited in the United States, they don't want folks bringing them back in from the Bahamas. That was the logic behind this. This is the first action, if you all want to discuss that.

MR. DeMARIA: Apparently there are a lot of snapper grouper fillets coming back, especially from the Long Island Area. There was a gentleman from the Bahamas, a fisherman that came to a GCFI meeting in Corpus Christi, and he was pretty concerned about what was going on. I know he spoke with the NMFS enforcement people, but he told me it was a lot. It was coming in private planes. They felt strongly that even though it was recreationally caught fish, it was going to restaurants. I know there is a lot of concern by the Bahamians about this.

MR. JOHNSON: Thank you, Don; so do you have a solution or a proposal?

MR. DeMARIA: I think at the very least the skin should be kept on, so they are not bringing back Nassaus.

MR. SMITH: Chair; are you looking for a motion?

MR. JOHNSON: In just a second; I'm going to ask Jim.

MR. HULL: Just a point of clarification for me; under Action 1 if you chose no action, the current status is dolphin and wahoo can be brought back maintained with head and fins intact; basically just gutted in a whole condition; that is where we're at right now. But what you would like to be able to do is to go ahead and rip those fish and leave the skin on and be able to bring them back in the fillet form.

Obviously, if you're on an airplane, that would be the preferred way you would want to do that. If you are on a boat, you could still bring them back in the whole fish condition, because that is what you can easily do on a boat with the amount that you can bring back. Really, you're just making it easier for people that are on airplanes to bring back, it seems.

DR. CHEUVRONT: There is a problem Jimmy with some of these dolphin and wahoo, especially the wahoo. They could be four feet long. Nobody has got a cooler that they can put a four-foot fish in. We're talking about the majority of these guys who are going over there and doing this are not in these really big fishing yachts. There are some guys, sure, but they are the minority. We're talking 30-foot vessels going over there. They are not going to have a four-foot box on them to throw in dolphin like that or wahoo.

MR. HULL: One other observation was it says that no matter two fillets of dolphin or wahoo regardless of the size of the fillet will count as one fish toward the possession of it. If they have this huge wahoo, if they cut that natural fillet in half, it is going to count double.

MR. JOHNSON: All right, Rodney, are you ready for a motion?

MR. SMITH: Chair, can we do both the preferreds 2 and 3; is that how that was?

MR. JOHNSON: Sure.

MR. SMITH: Yes, that is what I'll do; that is my motion.

MR. JOHNSON: That is your motion?

MR. SMITH: Yes.

MR. JOHNSON: **Alternatives 2 and 3; and seconded by Bill. Do we need any discussion on this? Seeing no discussion needed, we'll go ahead and vote. All in favor of this motion. Seeing none opposed; the motion is approved.**

DR. CHEUVRONT: Then Action 4, which is the last action in this amendment that affects snapper grouper, is that right now the way the regulations are written is that to bring back fillets from the Bahamas, you are required to have Bahamian cruising and fishing permits. Now in the

discussion of this at the March meeting there was some concern, because these Bahamian cruising and fishing permits can go over the course of several months.

It could be more than a single trip. What they wanted to require is that you have passports on board the vessel that show that the passengers on the vessel are coming from the Bahamas. They wanted to require stamped and dated passports to prove that they had been in the Bahamas as opposed to having done one trip, gotten the permits, gone out into the EEZ and fished, and then filleted those fish and never having gone into the Bahamas, but they had the valid Bahamian cruising and fishing permits onboard.

They wanted to make sure that nobody is filleting fish in the U.S. EEZ. That is the bottom line of what they were going to require behind this. The IPT, the staff of both the regional office and the council staff said, well, you know, passports are already required by the Bahamians. You have to have that when you go to fish in the Bahamas.

What the IPT is going to recommend to the council in June is that they just make sure that the language says that fishing lawfully in the Bahamas; and that way if the Bahamians change their regulations at some point, then we don't have to go back and address this again if they change this.

However, law enforcement would like to have something in it that says you have to have passports that show that you were recently in the Bahamas. Anyway, so what is going to happen is the council is going to discuss this issue in June and get it figured out; but right now this is the way this action and alternative ended up by the council.

Alternative 1 says vessels bringing snapper grouper back into the U.S. EEZ from the Bahamas are required to have valid current Bahamian cruising and fishing permits on board the vessel. Then Alternative 2 is vessels bringing snapper grouper fillets into the U.S. EEZ from the Bahamas are required to have stamped and dated passports to prove that the vessel passengers were in the Bahamas, as well as valid, current Bahamian cruising and fishing permits on board the vessel.

MR. JOHNSON: Okay, we can obviously give support to an alternative here. Does anybody want to do that?

MR. FEX: Yes, I'll take Alternative 2 as our preferred.

MR. SMITH: I'll second that.

MR. JOHNSON: **Seconded by Rodney. Do we need to have any discussion on this? All in favor of this motion. The motion is approved.**

DR. CHEUVRONT: Okay, Mr. Chairman, that is all that we had for Snapper Grouper Amendment 33. We're now going to Amendment 34. While Myra is bringing it up, I will talk to you a little bit about this. This amendment has two actions in it. The second action is dolphin allocation. Now, dolphin is not being discussed under the visioning that the council is currently going through.

The Dolphin Wahoo AP has asked a couple of times for the council to reconsider how dolphin are allocated. That is being taken up in this amendment; and it is partially based on historical landings, but dolphin was a strange case in the past. We don't need to hash over that here. But prior to ACLs and all that, there was sort of what they had called a soft cap.

It was not an actual quota that determined what the allocation would be between the commercial and recreational sectors. The Dolphin Wahoo AP wants to get the council to move back to something a little closer to what they had there and not base it solely on historical landings. That is the bottom line there.

Now, under Action 1, this is the accountability measures – and you were looking at this in; I think it was the blueline tilefish amendment. You had two actions that looked at accountability measures. One was for commercial and the other was for recreational. In this amendment we have combined the equivalent of those two actions into one action here. If you look through the whole list in this document, you will see all of the species that are affected by this. There are a number of snapper grouper species.

Now the Alternative 1, no action in this action is very, very, long because it includes all of the current accountability measures that are in place for all the different snapper grouper species plus golden crab. Golden crab is going in to this same action. If we can scroll down through that; you can see it is basically the rest of the snapper grouper complex that is not already under a similar action.

If you look at Alternative 2 here, this is exactly the same alternative that you saw as Alternative 2 for blueline tilefish; but it is for all those other species, so all the snapper grouper species as well as golden crab. Now, the thing is that there is no recreational golden crab fishery, so Alternative 3 won't apply to golden crab.

However, so what you have here, just to remind you, is that we're looking at what is going to cause the commercial AM to be invoked. Now Subalternative 2A says that you are going to reduce the commercial ACL in the following fishing year by the amount of the commercial overage only if the species is overfished.

Subalternative 2B would reduce the commercial ACL only if the total ACL is exceeded. Subalternative 2C is only if the species is overfished and the total ACL is exceeded. Once again, if this happens, whoever caused the ACL to be exceeded is the one who is going to have to do the payback. If both sectors cause the ACL to be exceeded, they will have to do the payback proportionally to the amount of their excess.

No one group is going to have to suffer because of overfishing by the other. Whoever exceeded it is going to have to do the payback. Now, you've got four alternatives in this action. It is quite likely that the council is going to choose three preferreds for this one action; assuming that they do what they have done with dolphin and wahoo in the past and with now blueline tilefish, but also with the mackerels and cobia.

Under Alternative 3, you have the exact same criteria that you saw before, so 3A is if it is overfished, 3B is if the total ACL is exceeded, and 3C is if the species is overfished and the total ACL is exceeded. Now, also the other thing is that on the recreational alternative, there is this

little thing in the end there that the recreational season and recreational ACL will not be reduced if the Regional Administrator determines, using the best scientific information available, that a reduction is unnecessary. So the RA; basically Roy has an out with the recreational fishery if the science is willing to back him up.

Alternative 4 then is that scenario that I mentioned earlier with snowy grouper where we have had the issue where it is clear after the first wave of MRIP that the recreational ACL has been exceeded. He wanted to be able to have the ability to shut down the fishery instead of waiting until the end of the season; even though he has known even after the first or second wave that the recreational ACL has been exceeded, to keep them from continuing to overfish and then possibly in future years not have any season at all.

There was a discussion with the council to basically be able to find a way to stop the recreational fishery if they needed to, to keep it from continuing to overfish. There are two subalternatives under Alternative 4; 4A is he can only do this if the species is overfished. In other words, if the species is not overfished, then he cannot stop the fishing; or, B, regardless of the stock status, he can stop them from fishing.

All that said, if you want to be consistent with what you did in blueline tilefish, you would select Subalternative 2C, 3C; and I don't know what they chose for equivalent of 4; do you know? Okay, so it would be 2C, 3C, and then whatever your desire is for Alternative 4, if anything at all.

MR. COLE: Flip up to 4 just a minute. In 4; why do we have this business where the RA can make a separate determination?

DR. CHEUVRONT: Well, the problem is the way the wording of this is set up now is that if this alternative is not in there; the RA doesn't necessarily – isn't required to consider stopping that overfishing. Now if the stock is overfished, like in the case of snowy grouper; then you want to be able to stop it so that you can actually have a season in the future, so you don't continue that overfishing. Now the decision here that needs to be made is do you only want to give him that power only if the species is overfished or regardless of the stock status?

MR. COLE: All right, let me try this. **I am going to move 2C, 3C, and you can leave 4 out, because the way I'm looking at it – and we will see what this comes out to – is that overage is overage, it needs to be stopped now whether it is overfished or not overfished.** All you are doing is penalizing yourself in the next year. That is to me very, very inconsistent with what we're doing in other management plans. Now, help me out here, because the wording on 4 seems to combine two different ideas.

DR. CHEUVRONT: Well, let's go back and look at it. I think 4B might get you what you were just talking about. It is basically saying that he should do it no matter what.

MR. COLE: All right 2C, 3C and 4B.

MR. JOHNSON: Seconded by Kenny. Do we need any discussion on this? Is everybody sort of clear on what is going on? If you are not, now is the time to ask.

MR. HULL: Can you just slow down just a minute and let me read it a little bit more and think again just a little bit?

MR. MUNDEN: Just to ease Bill Cole's mind and to refresh his memory; quite a few of the Mid-Atlantic fisheries management plans have this provision which allows the Regional Administrator to make in-season adjustments. They can close a season; they can reduce a quota, whatever. The Mid-Atlantic has been operating under this for a long, long while; same concept.

MR. COLE: Red, I don't think I'm talking about in-season adjustments. What I'm saying is that when the harvest rate is hitting the ACL or the available quota; stop fishing whether the stock is overfished or not; because all you are doing is either aggravating the overfishing problem or you are aggravating your situation in the next year. I don't think that's got in-season adjustments, does it?

MR. MUNDEN: Excuse me, Mr. Chairman, but that is the type of authority that has been granted to the Regional Administrator; they can shut the fishery down. It has a lot of flexibility relative to managing these quota-managed species.

MR. ATACK: Yes; the way I kind of look at it, there have been some examples back a couple years where I think it was gag grouper. The limit was projected to be met, and it was right before Christmas; it was like mid December. He put out the notice December 9, or whatever it was; and that was because it was dictated he had to do that.

He didn't have the flexibility to say, well, we realize that this time of year there are not as many landings, it is probably not going to be met; or if it is met, it will be just over a little bit; and he could have left it open those next three weeks, and then it would have closed January 1 anyway. Giving him a little bit of flexibility I think would be a good thing; and that is one example I think of how that could work.

MR. COLE: Yes; but the way this is worded is that using the best scientific knowledge. I think that is a little bit different than management flexibility, Red.

MR. STIGLITZ: I have a problem with the 4B. If the administrator shuts it off; say, you miss out on 50,000 pounds of fish; he shuts it off too fast; you lose out on 50,000 pounds of fish; do they add it to the next year? They are talking like if you go over, they are going to take it away from you. If they cut you short, then I have a major problem with having somebody up there, because they do that to us in the kingfish.

We catch 580,000 and we've been shut off 120,000 pounds short, because they are afraid we're going to go over. We have gone over; we've got problems with going over; and I understand it. What we would like in the kingfish, if we go over take it back. If they cut us short add it on. If they won't add it on, I don't' like having somebody with the power to just say, boom, you're done and then you lose out.

MS. BROUWER: I just wanted to remind you that it has happened in the past couple of years a couple of times where the quotas – the ACLs have been projected to be met and then the fishery has been closed down; but then they find out that there were 80,000 pounds left and then they

reopen it for a week or two. They have the authority to do that. Even though they don't add it to the next year's ACL, they can still reopen it to allow those fish to be caught.

DR. DUVAL: I think just in terms of Alternative 4; if you look at Alternative 2, that provides for an in-season closure of the commercial sector. This is just allowing for the same thing for the recreational sector and the phrase "if the Regional Administrator determines that a closure is unnecessary"; that is really just dealing with the greater uncertainty around the recreational catch data.

MR. JOHNSON: Jimmy, are you better now?

MR. HULL: Somewhat, so just to review it; on Alternative 2 we're talking about the commercial accountability measures. The motion is for Subalternative 2C, which pretty much provides the most flexibility, because both sectors would have to go over and it would have to be overfished before there is payback.

DR. CHEUVRONT: Not necessarily both sectors go over; the total ACL.

MR. HULL: Okay. the total ACL between both sectors; okay, and then I understand the rest. The one that does go over is going to pay it back; I am fine with that. Then the other one, 3C has to do with the same thing with the recreational sector. However, you add in the Regional Administrator because of the uncertainty can make some adjustments. Then on the other one is 4B is also in this motion. This one I just need to look at one more second. It is similar to 3C, because it just gives him the authority to – it is a little bit different than 3C, but pretty similar, regardless of stock status.

MR. JOHNSON: It is in-season, too. That is the difference, 3C is at the end; and then 4B basically says if he sees that the landings in the first two waves are high and already exceed the ACL, he shuts the fishery down; he doesn't just let you keep on fishing so you don't have a fishery for the next two years.

MR. HULL: Now I've got it.

MR. JOHNSON: **Okay, let's go ahead and vote on this. All in favor of these motions for these alternatives; any opposed? They are approved.**

DR. CHEUVRONT: That is all for those two amendments.

MR. JOHNSON: Great! Do we want to take a real quick break and then Amber are you going to be ready for us when we come back? Awesome.

MR. OSBORNE: Before everybody leaves, I've been talking to some people in my area and everybody I can get hold of that is involved in the bandit sector of the tile fishery. We want to change the start date of our fishery so we don't overlap with the longline, just economical factor, price and everything; and to ensure that we have our fall fishing that we have historically lost since the January start date of the tile fishery.

MR. JOHNSON: Okay; do you all want to go ahead and do other business while Amber is getting ready? No. Well, we'll go ahead and take care of this motion. You need to make a motion to that effect.

MR. OSBORNE: Start it in either April or May – I like May. If anybody has any other ideas, let me know.

MR. JOHNSON: Okay; we need to hold it down, guys, and get a second on this motion; and then we'll have some discussion. Do we have a second on this motion? Seconded by Don. Okay, I know Kenny has a question; go ahead.

MR. FEX: Yes; does the hook and line have their own allocation yet? Okay, I just wanted to make that clarification.

MR. JOHNSON: We need to clarify, Scott, this is for the commercial sector?

MR. OSBORNE: For the commercial bandit fishing sector.

MR. JOHNSON: Commercial hook and line.

MR. FREEMAN: My question mainly goes over towards Ben. Mr. Hartig, what is your input as far as a May 1st opening? I mean would you rather see it in April?

MR. HARTIG: I think if you want to come ahead and just say you want a May opening. To me it should make it all the way around, so we should get the whole year; but if we don't, we may want to go back and look at April. I think at the council level we'll have some more discussion about why April may be a better month or not; but leave it May 1st for now. It is clear that there is a motion from the AP to consider this, so we'll have some more discussion.

MR. JOHNSON: Okay; and his intent is to lengthen the season in better weather, I guess; better market as well, because the market gets flooded in January, so they are selling fish at the same time the longliners are just bringing in 1,500 or 2,000 pounds a trip. Anymore discussion on this? Let's go ahead and vote. **All in favor of this motion. The motion is approved.** We're taking a break.

MR. JOHNSON: Amber is going to walk us through what has been going on at the port meetings.

MR. VON HARTEN: All right, thank you, Mr. Chairman. Most of you were able to attend a meeting or you have been kind of in the know about what is going on. I just wanted to give you an update. This was the schedule that we set out to accomplish back starting in February; so 27 meetings. We've done 22 to date. The next ones coming up are the ones next week in Georgia. We'll be down there Monday, Tuesday, and Wednesday for four more meetings.

We finally were able to reschedule this one that was set for February 12. That was a port meeting that was going to be specifically targeted for chefs and restaurants and those kinds of folks, and we had to cancel it because of that ice storm we had come through. This is the date

that it is going to happen over on Shim Creek, April 22, at 10 a.m.; except for you South Carolina folks if you would like to come to that that would be great.

We did the South Carolina ones back in February. We had a total of 53 participants. Here are just some snapshots of some of the ones. This is the Charleston one; we had it at Haddrell's Point Tackle. We had a great turnout, great glean there. This one is down in Bluffton at Waddell Mariculture Center; and this is one of the ones in Murrells Inlet.

North Carolina, we did seven meetings and had 113 participants total. This one up here was the biggest one to date in tall the states. That was the one in Morehead City; we had about 30 people come to that one. Sneads Ferry, we had probably at least half the black sea bass endorsement pot holders there, so that was a different one. Then this was the one in Shallotte.

In Florida, we just wrapped those up last week. We had 126 participants. This is one in Titusville at Dixie Crossroads. This is the one we had in Marathon at Keys Fisheries. Just so you can see the sticky wall; you all remember that from hopefully your last AP meeting back in November; we tested that out on you guys.

It really seemed to work out pretty well except for one meeting in Key Largo where it was just too windy and we had to abandon the sticky wall; but we adapted. You can see all those blue sheets up here are the overarching issues. We had 13 at this one. This is the one in Titusville. Then all the yellow sheets of paper are the solutions that people came up with; and the pink sheets are the initial issues or problems that people identified.

People really had a lot of really good suggestions for solutions. It seemed like everybody really enjoyed this format. Maybe those of you that attended can speak to that; but just a lot less formal, more interactive, people really liked the back-and-forth dialogue. I think staff could agree that it went really well.

We're still working on all the summaries. Anna and Julia were the ones that were there taking notes at all the meetings. We're still working on those summaries, but I tried to kind of weed through some of our initial notes and some of the existing summaries just to pull out some of the issues that really kind of seemed to rise to the surface.

They are in no particular order. I just kind of started listing them as I remembered them. Reporting was definitely one of the issues that came up; the lack of it in the recreational sector, the redundancy of reporting in the commercial sector as far as what they have to report to state and federal; and the fact that they are not using the new technology, all the mobile applications and electronic reporting and things that are out there.

Science and stock assessments; there was a lot of confusion about how this happens and definitely identified some outreach needs that Kim and I can follow up on from the outreach perspective on science, data collection, stock assessments; but the main gist of it was people don't trust the science. They don't believe it is accurate, the timeliness of the science being collected, and the stock assessments happening was too long and not really matching what the fishermen are seeing on the water.

Data collection, the main force there at most of the meetings that it came up at was MRIP and all the problems with the survey design and things like that. They did have some good suggestions for solutions on different opportunities to involve fishermen in data collection; which leads to the next one, which is research and the feel for needing more cooperative research and how to incorporate that type of research into some of the stock assessments that are ongoing.

Snapper grouper permits came up at several meetings. The commercial two-for-one requirement and the concern of when was the end; when was enough, enough; and what is the limit on that and should that go away. The idea of a limited entry for the for-hire sector as well came up; also the idea that there is no really permit for the recreational sector, the private recreational.

Some ideas came up about some kind of permit similar to like the Gulf reef fish permit that is being proposed and things like that. The need for flexibility in management strategies; and that was really related to the ACLs and seasons and the timeliness of how quickly the council can respond to management in terms of when stock assessments come out and changing bag limits.

Black sea bass came up a lot with the recreational sector; that the five fish per person is too low given how well the stock is apparently doing now. Too many discards; had lots of talk about fish floating off and the use of descending devices and all of those kinds of things. The regional approach to management, the one-size-fits-all management that the folks feel is happening right now with the council versus a regional approach to management.

They talked about how the council's jurisdiction goes from North Carolina all the way down to Key West; and these are very geographically distinct areas and very much different in the way that the fishery is executed within that area. Time area management; in terms of the seasonal closures, frustration with the existing MPAs and how to fix those things.

Allocation really didn't come up a whole lot. It came up at a few meetings with some specific species, and I would have to weed those out. There were definitely some species-specific issues and different states. Black sea bass and red snapper were the big ones up in North and South Carolina. Shallow water grouper was region-wide.

Everybody is not happy with the annual spawning season closure and wants some adjustment to that. Then down in south Florida, the jacks complex came up and the possible need to separate that out of the snapper grouper complex. Endorsement program issues; there was discussion about both those endorsement programs, black sea bass and golden tilefish, things about eligibility requirements, things about what to do about black sea bass now that the stock has recovered. There are maybe some ideas of is it needed anymore?

The fear of catch shares; there were a few supporters for catch shares, but overall the feeling I think region-wide was just the fear of catch shares coming back to the table at the council level. Definitely had some pest issues as one group called it – it was pest management for Goliath grouper, lionfish, and sharks. Apparently, sharks are really getting to be a problem eating the fish as you all are catching them; Goliath grouper down in the south Florida area; and then lionfish as it expands and starts to dominate some of these reef habitats and eating all the juvenile snappers and groupers.

Conflicting regulations and permit issues; this was really kind of at the northern and southern extremes of our region. Within the Outer Banks of North Carolina; they talked about some of the conflicting permit issues that they were experiencing with not being able to possess certain permits when they were fishing in the South Atlantic; and the need for more coordination with the Mid-Atlantic Council.

Then at the southern end with the Florida Keys, the same kinds of issues with the three different jurisdictions that those folks have to deal with, the Gulf Council, the South Atlantic, and then, of course, the state of Florida and different conflicting regulations there. Also down in the Keys, this isn't really a problem, but the fishermen down there felt that their fisheries are – the backbone of their fisheries, yellowtail, mutton, and gray snapper; they are working just fine and they need to be left alone. That was it.

That is kind of a quick nutshell synopsis of some of the issues that we saw come up; and if anybody else feels like I left something out, let me know. The next steps – well, first I'll talk about how we got the word out. We did have this flyer that I think you all looked at in your last meeting. We mailed it out to over 1,900 permit holders; so all the commercial, for-hire, dealers; everybody got a flyer promoting the port meetings.

We sent out e-mail blasts about once a week, because we did a major e-mail blast announcing the kickoff of the port meetings; and then a week before the start of each state port meetings, we sent out an e-mail blast in pretty much every publication that we put out at the council level. Kim also did some feature articles in the newsletter.

Then we also had lost of print media coverage, did some radio shows; and lots of our partner agencies and other organizations did some coverage on the port meetings as well. We felt we did a pretty good job publicizing them and getting the word out. Also, the website has served as a major tool for getting the word out.

Then I also wanted to bring to your attention that we do have that port meeting discussion form, which is the picture you see here. It is under the visioning tab on the left side of the website. That is another place where if people were not able to attend the meeting or they had additional thoughts after they attended a port meeting, they could come to this form here.

There are just some general boxes they can fill in thoughts; and then there are also some sector-specific tabs down here for commercial, chefs and dealers, for-hire, recreational, and so on and so forth; with some topic-specific boxes they can answer some questions in. We are still collecting information up until we're ready to start really compiling in the next month or so.

The next steps; we're going to try to compile all of this information by state and then also by sector, and then perhaps maybe do the top ten issues as they flesh out that came up the most in all the different meetings and present this draft summary to the council at their meeting in June down in Florida. Beyond that, I envision that we'll probably still continue with the visioning workshops at the council meetings, which are held the Monday morning of every council meeting at least through the end of the year; and then the council will begin to start working on developing the strategic plan. Then hopefully throughout the whole rest of the process, the public will still be able to provide input and at least review what the council is putting together. That is the summary.

MR. JOHNSON: Thank you, Amber; I just have one question. Did you get any kind of breakdown as far as recreational versus commercial in participation? Do you have any idea what it was?

MS. VON HARTEN: I don't know off the top of my head, but on the sign-in sheet people indicted their sector. I will say that we did not have a whole lot of private recreational anglers. We did have a good little core group that came to one of the Keys meeting, which was good; but, yes, we definitely need more from that sector.

MR. FEX: I facilitated one in Southport; and I attended two other ones in the state. That was a really good idea. The people were actually free and easy to speak. They were hanging out with their buddies. Amber and Myra did a great job; and Ann did, too. It was hard for me to sit there and hear some of the comments, because a lot of times they were downing the AP or the council. But I understood, and I kept my mouth shut. But it definitely was a neat idea. I hope you guys do look at that in the future as a way to get out to the people. I'll try to help as much as possible.

MS. VON HARTEN: That is another thing we asked folks was how did they like the format, using the sticky wall, making it a little bit more interactive. Everybody was pretty unanimous and saying that they really enjoyed it. I'm hoping that is some kind of strategy we can do in the future just to do some groundtruthing a couple times a year to get out and get some information from people.

DR. DUVAL: Yes; and one of the things that at the end of the North Carolina port meetings that I sort of informally asked folks was would you all like for us to maybe come back to you once there is a draft blueprint or a strategic plan; come out to you again in this format and get your thoughts and input on that? They all said yes.

In North Carolina we had some folks who said I haven't attended one of these meetings in 20 years; but if this is the way the council is going to do business from now on, count me in. It was really amazing. I know Ben has brought up the issue before in terms of just public comment when we go out to public hearings.

Staff has tried really hard by having sort of the rooms where we set up presentations where folks can come in and have informal conversation and get their questions answered before getting up in front of the scary microphone. The microphone is really the intimidating part. It is like how do we take that and really try to maximize the input that we get from people and the comments that they are making and utilize this format better but still capture their remarks accurately?

MR. COLE: Amber, do you have any intuition or thoughts on how or why we're missing the recreational groups?

MR. JOHNSON: You know, that is a really good question, Bill. I worked as hard as I could in St. Augustine. I facilitated a meeting. I went on the radio show, Florida Sportsmen Network, for probably five Saturdays in a row and talked about it at length, 30 minutes. I went and spoke to the local fishing club whose facility where we had the meeting.

They all assured me they were coming; and we ended up with about five or six. The recreational sector is really good about complaining; but they are not much good about showing up to find solutions. I was very frustrated and probably said some things I may end up regretting; but I let them know what I thought.

MR. COLE: Robert, I think that this is interesting. They didn't show up to talk to us, but they are having conferences in the Beltway right now to make sure that NOAA gives them more preference in everything that the agency and we do; but yet they won't come talk to us. I find that there is something not right here.

MS. BROUWER: I was just going to share an observation; and I don't know if this is a factor in why they were absent. The folks that did come to one of the meetings, I think it was in Murrells Inlet; there was a little group of recreational folks that came. It was my impression that they thought they were coming to get information from us and to learn about the management process and stock assessments. They were full of questions.

That is what they wanted; they wanted to learn. I think part of the problem is maybe a lot of private recreational anglers just don't know enough about the process to feel that they can participate adequately. We kept bringing up the fact that there is this MRIP. I keep forgetting what it stands for, but that there is a vehicle to educate people, both recreational anglers and commercial folks, on the management process. Right now it is just focused in Florida, though. I think there has been some talk about potentially expanding it to the rest of the South Atlantic. But we did hear from folks that they would really support something like that and that we really want to have something like that.

MR. JOHNSON: I know some fishermen that actually attended the one for St. Petersburg, and it was very beneficial. I would say that some of the recreational fishing groups are very good at using propaganda to rally the troops; and the best way to rally the troops is usually to get them all pissed off about something. I think that is an issue for the council, because all they hear is all this negative, negative, negative. There are a lot of positive things that they could focus on.

MR. BELL: To that point; we were kind of frustrated by the lack of participation from the private boat sector. We even had a meeting specifically for that and we got skunked. We didn't have five. I think part of it I was thinking was maybe that the commercial guys and the for-hire guys; that is a business thing.

They are a little bit more invested in it; and it may be a little easier for them. It is no excuse, because you are right they certainly don't mind complaining and pointing out what is wrong. But I was a little bit disappointed in that; and I think we just keep trying to engage them as best we can and maybe it will catch. But, yes, I think that is across the board we were all a little underwhelmed by the amount of participation we got from that particular piece of the sector.

MR. DeMARIA: I think what you said is probably right; it doesn't really impact the recreational fisherman directly financially like it does charter, headboat, and commercial people. It is a bit like the recreational dive community, too. You don't really see them get involved in this stuff. It impacts them with the fish that are out there, but not really directly. It doesn't hit them in the wallet like it does commercial or headboat guys. I think it is a financial thing, really.

MR. THOMPSON: I want to go back to what Myra had to say about Murrells Inlet. We had a fair participation of recreational guys. Remember, the weather was really crummy that day and getting ready to freeze; and the next day it got turned because the bridge froze up here, we couldn't do it at night. .

But that was the problem is that none of them had enough education for the meeting going in, the private guys to be informed, so they wanted to be informed. Now, I think with a little bit of mailing stuff to them beforehand, they might be. But it is kind of tough to start cold and come in there with your vision, so to speak.

MR. HARTIG: Yes; the combination of recreational and commercial went quite well in every meeting except in Key Largo. In Key Largo we had a pretty overbearing group of commercial guys that kind of took over the meeting early. There were several recreational guys sitting in the back that actually left.

That is the only meeting I saw this happen in Florida, but they didn't get their points across because of the really – it wasn't the right kind of setting for them to be able to participate, unfortunately. There were some recreational fishermen that didn't get their say at least in Key Largo that did show up to the meeting. Hopefully, they will do it electronically, but that was one of the only drawbacks. I know we had talked about that early through this whole process about separating them and never really saw a problem; but that was one problem we did have there.

MR. ATACK: I can see how the recreational guys could be a little intimidated. They don't know a lot of the rules like we do, like the commercial guys or the charter guys. One option might be in the future – I know there are some fishing clubs and they have gatherings – is if you held it maybe on their turf, maybe at the fishing club and they all came. But they don't have the invested and they don't know the rules like a lot of the other people are more vested in it; so I'm sure it is hard to get them. Some of them are much more part-time and they may just recreational fish two or three times a year versus the ones that try to go every weekend.

DR. DUVAL: Just to Jim's point; Anna Beckwith and I have offered to do exactly that. We've reached out to some of the private recreational leadership in North Carolina to get some points of contact for some of the fishing clubs that are sort of in the eastern part of the state; because even though we did have some assistance from them in setting up a meeting in Raleigh, which that was their recommendation for having a meeting, we didn't have the turnout that we wanted.

Even the folks who were there said we're bummed that there are not more people here because there is a lot of interest. Anna and I have made that offer to come and just sort of talk to folks about what do you think is going right, what do you think is going wrong at a meeting of their fishing clubs. We're actually schedule to meet with the Raleigh Saltwater Fishing Club, I think May 20.

Unfortunately, some of this is probably going to happen a little bit outside of when Amber and Myra and other staff members are working to put together these materials for the June briefing book; but again I don't want to cut people off and say you can't provide any more input, because this is a constantly evolving process and differences of opinion help create change that can be very productive.

MR. DeMARIA: Back to what Ben said about Key Largo; I think anything you do in the Upper Keys these days is going to be very, very contentious with the commercial sector. If you look at what is going on; Key Biscayne, they may all get kicked out of there pretty soon; the Sanctuary areas; they were basically kicked out of the national park years ago.

But none of this really impacted the recreational fleet, not to the extent that it did the commercial. The recreational guys up in that area don't have quite as much to complain about. They are certainly not worried about losing their homes or anything because of the regulations. But the commercial guys, I think their backs are against the wall up there. It is not a pretty picture. I understand where they're coming from. Any meeting up there, you are going to have some angry commercial fishermen. I can't say at this point that I blame them.

MR. JOHNSON: I got you. Thank you for that, Don.

MR. MUNDEN: I just want to share very briefly with the group the way that the Mid-Atlantic scoping meeting went about two years ago when the Mid-Atlantic decided to hold a meeting in Raleigh, North Carolina to reach out to recreational fishermen primarily. There is a very active saltwater fishing club in Raleigh.

At the meeting, at the time the Executive Director came in and gave an overview of what we were looking for with our visioning program. Basically he said we want to hear from you. We want you to tell us what you want your fisheries to look like in 5 years, 10 years, 20 years down the road.

He pretty much opened the floor up; and there were about 10 or 12 fishermen there. They started off primarily by complaining; and they complained about spiny dogfish and the spiny dogfish was so abundant that they punched holes in their waders and they stole all the bait. Spiny dogfish are managed by the Mid-Atlantic Council.

Then they jumped on striped bass. Striped bass are managed by the Atlantic States Marine Fisheries Commission. Then they complained about snapper grouper managed by the South Atlantic Council and king and Spanish mackerel. I told the Executive Director after the meeting was over; I said these guys don't have a clue as to who is responsible for managing the various fisheries.

After sharing that war story with you, I would like to compliment the staff. They did an excellent job of running the meetings. The procedures they used got the fishermen involved early on. Rather than people just shooting off at the mouth, they encouraged what other people had on their mind and they could comment on that.

The staff did an excellent job; and the meeting from my perspective was much, much more productive than the Mid-Atlantic Council meetings that we had. In the final analysis, the Mid-Atlantic did a really good job primarily through the efforts of the Chairman and Vice-Chairman. They held other meetings where they had workshops. I think they ended up with a really good project and document relative to scoping and visioning for that council. But, again, my compliments to the staff; they did an excellent job at the meeting in Morehead City where I attended. We did have some recreational fishermen there.

MR. JOHNSON: I will second the excellent job; they did a great job. All the fishermen I talked to, they thought it was really a good process and were very positive. Is there anything else on visioning? I think there are a couple things under other business. Jimmy, didn't you have something?

MR. HULL: Yes sir. Back to the job that the staff did on the visioning; it was really good. Everyone appreciated it**. I would like to ask the advisory panel to recommend to the South Atlantic Fishery Management Council to remove almaco jack and banded rudderfish from the jack's complex. I would ask them to establish individual annual catch limits for each of those two species and seek updated scientific stock assessments for each one of those as soon as possible.**

MR. JOHNSON: Okay; do we have a second to this motion? Seconded by several people, by Jim Freeman. For those of the AP that might not understand; almaco jacks are a pretty important fishery I know in Florida and I'm assuming in some of the other states as well. They've been closed down; mainly I think driven by they are in the jack complex, so banded rudder fish landings and other things. These guys just want to get a separate ACL for almaco jack.

MR. HULL: Yes; and we figure this is a start to try to get the council to start in that direction; and also recognizing that we need to do a lot of things, but this would certainly help, because almaco is really important to my area. It gets shut down because of being in the complex with these other jacks.

MR. JOHNSON: This species was plagued by misidentification issues in the early years, because jacks were jacks; so they all just sort of got thrown in the bin together. If there is no further discussion; does anybody else have anything on this? We'll go ahead and vote. **All in favor for this motion? The motion is approved.**

MR. FEX: I've got something I would like to talk to you about. It seems like it is a problem; it is one of Ben's issues. The councils are always trying to get our logbooks up to date. Well, I know when I come in from fishing I have to fill out the discard and the financial thing. But if I didn't have to fill that out; the only thing that keeps me from filling this report out as soon as I hit the dock and get my numbers is that state number that I have got to wait for the dealer to give me.

What I'm asking you guys as dealers is would it be easier for me to actually let you take my number, my logbook number, and put it on your dealer thing, because then I could fill out my report and send it in. My numbers are numerically; whereas my dealer's number, I don't know what the next number is going to be. He might have dealt fish for ten other people.

What I'm saying is maybe we could switch that so that the 80 percent of logbooks that don't have to fill out all the discards and the things could actually come in on time and maybe leave a little leniency for the people that actually have to fill out the economic part and the discards for later on, to give them a little leniency to get that time to get that number. But if we could get that number sooner, we could help this out, because I still have to wait for my finances regardless.

It is going to take a week or so; it does with me. I'm just asking this as dealers would you mind supplementing that number and then you take my number to fill that void so that we could get 80 percent of the logbooks in on time or have no reason not to get them on time.

MR. HULL: I'm a dealer and I see what you're talking about, because you get the SPL number from the state number and you have to put that on your logbook. If you are waiting on the dealer to do that to fill out your logbook; you could fill out your logbook report without entering that and then wait to enter that later.

I agree you could work with that; but dealers are going to be required to report every week coming up. Well, we already do it every week, but there is stuff coming in dealer reporting where by a certain time limit on Tuesdays at 12:00 midnight, if you haven't pushed the button and sent in your report; you are going to be considered out of business.

We've been reporting weekly for a long time, but there are a lot of people that haven't. There are a lot of dealers that haven't reported for months. They don't do anything to them; but they are going to do something to them now because they are going to make them report weekly. That is going to speed up the process a little. It is going to make it happen quicker for you.

MR. ATACK: I've got a question. I guess when you pull up to the dock and you unload isn't the state ticket there that they start filling out and you can't get that number off of that ticket?

MR. FEX: No, actually because he has got to fill out the economic report, too, how much money he got for his fish per pound and everything like that. Actually, I've got to wait until he finishes all that to get that number. I might actually go back out fishing before then. I understand what you're saying.

MR. FREEMAN: As soon as it is generated in the computer system, your state trip ticket is on there. It is just he may have to go back in a few days later to put in the numbers and put in the financial ends of it. I can't speak for other people's docks, but at the dock that I'm at we unload and it goes in the computer right there.

MR. FEX: To that point; it doesn't happen where I'm at. What happens is the council is looking at giving violations for latent logbook reports. I need to still go fishing if I've got the opportunity to go fishing. I'm just trying to get that opportunity for that 80 percent that don't have to fill out all that; to be able to put that logbook in right then. That is all it is.

Believe me, I wish it was that easy as soon as I got in I could get that and get paid and everything, but I can't do that. I'm just trying to solve a problem. All I'm doing is switching the numbers. They need that number to validate each dealer. I'm just trying to switch a number. If it is an inconvenience to the dealer, I understand; but it is going to inconvenience me and I'm going to get a violation, and I might not be able to fish here or there. That is all I'm concerned about.

MR. HARTIG: Kenny, I appreciate your attempt to solve a problem, but I think you would be creating a bigger one than you would be solving, because then the dealer has to chase down every fisherman and ask him for every number off his logbook that he filled out. That would be tough.

MR. FEX: Yes, to that point; my numbers are numerical. When I come in, he can take the 1-4, 3-7, 9-2; and then the next trip he is going to have to put 9-3. I'm just saying that if he knows that last trip he got my fish and he got it at this number and that the next number is going to be one more number up; but I can't guess his number. I don't know how many people he's bought fish. I'm just trying to solve a problem that I know is going to happen. That is why I talked to Bonnie about it. That is why I brought it in front of you before I took it to Bonnie and had her take it in front of somebody else.

MR. HULL: Basically your problem is that you are required to submit economic information. Okay, you are one of the people that is chosen every year like I am to report economically every year. You are already back out fishing by the time the returns come from your dealer to fill in that information is basically what I thought I heard you say. You want some relief for you, because you were having to fill out that economic information and you can't do it in time.

MR. FEX: Yes; that is true, but the problem is even if I didn't have to fill out that economic information, I still have to wait for that state number to send it in. That is the only thing – that state number is messing me up, because you need them to validate dealer and the logbook. The other 80 percent still has to wait for that state number.
That is the concern is waiting for that state number. If my dealer was there every time I came in, I would be fine. If he could give me that state number, I would be fine; but it doesn't happen that way at my dock. And I apologize; we're in the Stone Age or whatever.

MR. JOHNSON: I am not sure how you would make a motion even to deal with that. It is on the record, though. You can make a suggestion.

MR. FEX: I was just bringing this in front of you before I take it to Bonnie and say here is a solution and all of a sudden you guys wonder where it came from. I don't want to hurt the dealers; I don't want to hurt me. But later on when they make an amendment to violate people's latent logbooks, I am one of them.

MR. JOHNSON: Okay, I got you. Is there anything else? Rodney is not here. Does anybody want to make a squirrel motion? (Laughter)

MR. DeMARIA: No; I think we've beat the hogfish thing to death pretty much and I think we got our point across. We're coming to the council and trying to be proactive and sort of getting pushed off. That was the point. None of us want to see the thing closed down completely, a moratorium. That was just for discussion.

MR. ATACK**: One of the things that came up in the visioning meetings; I was going to make a motion and see if it goes anywhere. I would like the council to consider on the snapper grouper permits making them one-to-one versus the two-to-one. The homework I did, there are 530 permits out there. There are 210 are corporate; that leaves about another 160 reduction for the two-for-one.**

You would be down to 370 if you continue to go two-to-one all the way to the end. The other thing I think about is the guys that are in it now have been in it so long that why shouldn't their permits be worth the guys with the corporate permits? If they were smart enough to make it

corporate back when, their permit would be worth more. I think it would just be a fair thing to do for everybody.

MR. JOHNSON: Okay, we have a motion. Do we have a second to this motion? Seconded by Richard. Is there any discussion on this?

MR. DeMARIA: I think it is a fine idea, but I wonder what the people that did buy the two-for-one back several years ago are going to feel? Are they going to feel like they are getting a little bit short changed on this, because they had to buy two and now today you only have to buy one? I'm going to support your motion, but that would be my only concern.

MR. JOHNSON: Probably no more than the people that bought a Wreckfish, IFQ and then watched it get thrown in the trash.

MR. PHIL CONKLIN: What you are saying is if you are one-for-one, then the people that have these permits since day one, they have the chance to form a corporation now? Before they had the option to form a corporation for business purposes; then there are the people that got two-for-one that have a corporation, it was a requirement. It doesn't make sense.

MR. JOHNSON: It wasn't a requirement to form a corporation two-for-one. That was just a loophole that people saw that allowed that permit to be then from that point forward one-for-one. They could sell the corporation and the permit went with it. The corporation got sold.

MR. COLE: I'm not sure where I am on this; but I don't think I'm ready to vote on it today so I am going to abstain. The reason I am, Jim, is that I believe this issue and some other issues on these kinds of requirements even in the recreational sector are showing up in our visioning process. I would sort of like to see what the summaries of those look like and so forth.

I think that in order to effectuate it, the council is going to have to look at that in a broader sense. Are we in fact right now down to enough vessels to not overharvest in snapper groupers and so forth? In other words, do we still have an excess of fishing power versus available resources? These are broader issues. I'm going to abstain on you today.

MR. STIGLITZ: That was going to be my question, Bill; is the fishery sustainable enough now that it can handle the 530 or whatever number there is. If somebody bought one for two-for-one, his permit is worth what a permit is worth now. You did it; it was a business deal. Business deals go up and they go down. I'm not worried about the business part of it; I'm concerned about the fisheries part of it. If the fishery can handle the amount of commercial permits that are there, then I don't think it should be reduced anymore.

MR. DeMARIA: Richard, I don't think it is the same fishery that it was 20 years ago. A lot of the gear has been taken out, fish traps are out and bottom longlines are. I think it is a different, it is much more – if it is not sustainable, it is much closer to a sustainable fishery today than it was 20 years ago. I think it is probably down to a point where we don't need to whittle it down anymore.

MR. OSBORNE: It is not down to where it needs to be; we're still facing closures. When we get to where we're fishing all year round, then I think you've met your number. But until then,

there is obviously too much effort if you are getting shut down all throughout the year. It is just too fast. When that starts balancing out, I think you might have something, but right now I don't see how.

MR. JOHNSON: Okay, any other discussion? I'm going to go ahead and vote on this. **The motion reads council should consider taking away the two-for-one requirement of the snapper grouper permits. All in favor of this motion; all opposed. We have got some people abstaining. Are you looking to me to break the tie? I am going to vote for it.** Is there anything else?

MR. STIGLITZ: The recreational sector fishing in the deep waters, the snowy groupers; these guys go out there – and I was in the Bass Pro Shop's place in Islamorada. They've got rigs that they're selling with five hooks on them that they are sending down to the bottom, and they are allowed to keep one fish on the boat.

They are dropping down two and three rods with three, four and five hooks apiece on them. I would like to see us regulate them down to where when you go out there deep-water fishing, you put one hook on and you drop one rod down. If you are only allowed to keep one grouper, there is no reason to catch three, four, or five of them and kill them or keep three, four, or five tilefish; catch them and when you come to the top, they are dying.

MR. JOHNSON: Okay; so you want to put that in the form of a motion? Do you want me to help you with that**? Are you trying to say for deep-water species require the recreational rigs one hook for the recreational sector? How do you want to word this? Don, do you have something?**

MR. DeMARIA: I'm seconding it.

MR. JOHNSON: You are seconding it, okay, to reduce discard mortality.

MR. DeMARIA: I guess we're open for discussion.

MR. JOHNSON: Well, I would like to see a depth component attached to this for clarity.

MR. DeMARIA: Is there a deep-water complex fish?

MR. JOHNSON: That is, what, 240 foot and deeper?

MS. BROUWER: I guess.

MR. STIGLITZ: I think most people that recreational fish inside the 240 foot of water fish with a single hook. When they go out to that snowy grouper fishing and they're dropping in 6, 700 foot of water; they are dropping down these chicken rigs. It is a commercial fishing thing; it is not a recreational fishery. That is all I'm trying to get at.

MR. DeMARIA: Richard is right; I have trouble calling that a recreational fishery where they use these electric reels with spider lines. The electronics is in many cases superior to what is on a commercial boat; but how many meetings have I been to and recreational fishermen I've talked

to have complained, well, I put down four hooks and I caught three snowies; what am I going to do with the other two? Well, just put down one hook.

It is like the guy going duck hunting; and certain ducks you can shoot three or four, some you can only shoot one – like Florida Mallards, you can only have one a day. It is like shooting at a flock of Florida Mallards going by and knocking down four of them and then bitching and complaining that you can only keep one. You pick out the singles and you shoot those. It should be the same thing with this. They are supposed to be sportsmen anyway.

MR. JOHNSON: Okay; do we need any further discussion on this motion? Seeing none; we'll go ahead and vote. **All in favor of this motion; all opposed. Two opposed, motion is approved.** Anybody else; anything else? I want to thank the group again for being very gracious and bearing with me for the last two years. It has been a privilege and we are adjourned.

(Whereupon, the meeting was adjourned on April 10, 2014.)

Certified By:_____ Date: _____

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Graham Transcription, Inc.
April 30, 2014

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South Atlantic Fishery Management Council

Snapper Grouper AP Meeting:

Thursday, April 10, 2014

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South Atlantic Fishery Management Council

Snapper Grouper AP Meeting:

Tuesday, April 8, 2014

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South Atlantic Fishery Management Council

Snapper Grouper AP Meeting:

Wednesday, April 9, 2014

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Tuesday April 8, 2014

79	Hudson, Rusty	dsf2009@aol.com	235 min
68	Mehta, Nikhil	nikhil.mehta@noaa.gov	160 min
54	cardin, bobby	finchasefr357@aol.com	79 min
35	Haselden, Leeann	leeannhaselden@gmail.com	160 min
31	McCoy, Sherri	sherrim@wildoceanmarket.c...	251 min
31	Davis, Julie	julie.davis@scseagrant.or...	35 min
30	pugliese, roger	roger.pugliese@safmc.net	109 min
29	Byrd, Julia	julia.byrd@safmc.net	247 min
27	Helies, Frank	fchelies@verizon.net	190 min
22	smart, t	smartt@dnr.sc.gov	15 min

Wednesday April 9, 2014

80	Hudson, Rusty	dsf2009@aol.com	524 min
70	Haselden, Leeann	leeannhaselden@gmail.com	0 min
63	Mehta, Nikhil	nikhil.mehta@noaa.gov	449 min
54	cardin, bobby	finchaser357@aol.com	19 min
50	pugliese, roger	roger.pugliese@safmc.net	44 min
46	Muhammad, Ernest	muhammade@dnr.sc.gov	138 min
42	mershon, wayne	kenyonseafood@sc.rr.com	382 min
33	DeVictor, Rick	rick.devictor@noaa.gov	300 min
30	McCoy, Sherri	sherrimg@gmail.com	518 min
29	FARMER, NICHOLAS	nick.farmer@noaa.gov	462 min
25	cummings, nancie	nancie.cummings@noaa.gov	231 min
21	Helies, Frank	fchelies@verizon.net	16 min
20	L, I	captaindrifter@bellsouth....	560 min

Thursday April 10, 2014

74	Hudson, Rusty	dsf2009@aol.com	494 min
56	cardin, bob	finchaser357@aol.com	336 min

46	Mehta, Nikhil	nikhil.mehta@noaa.gov	434 min
37	McGovern, Jack	john.mcgovern@noaa.gov	128 min
31	Iverson, Kim	kim.iverson@safmc.net	1059 min
30	DeVictor, Rick	rick.devictor@noaa.gov	297 min
30	Errigo, Mike	mike.errigo@safmc.net	193 min
29	Cummings, Nancie	nancie.cummings@noaa.gov	157 min
29	Wyanski, David	wyanskid@dnr.sc.gov	341 min
23	FARMER, NICHOLAS	nick.farmer@noaa.gov	79 min
21	Byrd, Julia	julia.byrd@safmc.net	63 min
21	Helies, Frank	fchelies@verizon.net	40 min