SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

SNAPPER GROUPER COMMITTEE

Doubletree by Hilton New Bern/Riverfront
New Bern, NC

December 2-3, 2014

SUMMARY MINUTES

Snapper Grouper Committee:

Dr. Michelle Duval, Chairman	Jessica McCawley Vice-Chair
Mel Bell	Chris Conklin
Dr. Roy Crabtree	Mark Brown
Ben Hartig	Jack Cox
Doug Haymans	Zack Bowen
Anna Beckwith	Charlie Phillips
Chester Brewer	Pres Pate

Council Members:

Lt. Morgan Fowler	Dr. Wilson Laney

Council Staff:

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

Observers/Participants:

Monica Smit-Brunello	Dr. Jack McGovern
Dr. Bonnie Ponwith	Phil Steele
Dr. Nick Farmer	Kevin Anson
Dr. Marcel Reichart	Dr. Louis Daniel
Barb Zoodsma	Tracy Dunn
Robert Hoffman	Jim Atack
Tom Burgess	Will Heyman
Doug Mumford	

Additional Observers Attached

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The Snapper Grouper Committee of the South Atlantic Fishery Management Council convened in the Grand Ballroom of the Doubletree by Hilton New Bern/Riverfront, New Bern, North Carolina, Tuesday afternoon, December 2, 2014, and was called to order at 1:45 o'clock p.m. by Chairman Michelle Duval.

DR. DUVAL: We will go ahead and get the Snapper Grouper Committee started. The first item is approval of the agenda. At this point I know of one item under other business. Are there any other modifications to the agenda or anything folks would like to add under other business at this point? Seeing none; the agenda stands approved.

The next item is approval of the September 2014 meeting minutes. Are there any modifications to the minutes? Seeing none; the minutes stand approved. Next we have our routine status of commercial and recreational catches versus quotas for species under ACLs; and I believe Dr. McGovern is going to take us through that.

DR. McGOVERN: What I have here is an update of what is in the briefing book that was under Tab A, Attachment 1A. It shows 2014 South Atlantic commercial landings through November 26th. This is updated landings that were provided by the Science Center last Friday. The way it is set up, it compares landings through the 26th of this year to the landings through the 26th of last year.

For example, Atlantic spadefish, 2,505 pounds were landed through the 26th of this year compared to about 2,500 last year; so very similar. I'll just highlight some species. Black grouper; their landings were a little bit higher than they were last year. About 76 percent of the quota is met. Cobia, 97 percent of the quota is met; and we just got information that cobia will close on the 11th of December, so that is next week.

For the deepwater complex, we have an emergency rule in place that removed blueline tilefish from the deepwater complex temporarily and established an ACL for blueline tilefish. We have an ACL for the deepwater complex without blueline tilefish. The deepwater complex closed on the 10th of July; so the deepwater complex is closed without blueline tilefish. The ACL for blueline tilefish has been exceeded. It was closed in June.

Gag; we're at 97 percent of that quota, and that closed on the 21st of November. Golden tilefish longline went over by 40 percent; the hook-and-line quota went over by 2 percent. Mutton snapper; we have 95,000 pounds landed; a little bit higher than last year.

Red porgy; porgies is at 98 percent, and we have a closure package that is in the works for the porgies complex. Red porgy, which is not in the porgies complex, we're at 87 percent of that quota; and red porgy is not projected to have its quota met this year. Scamp landings are a little bit higher than last year. It is at 51 of the quota.

Snowy grouper exceeded its quota by about 10 percent. Yellowtail snapper is about 86 percent of the quota; and it is not projected to be met this year; and the landings were a little bit higher than last year. Moving down to some other species; black sea bass is at 33 percent of the quota. The landings are about 140,000 pounds lower than they were last year at this time.

Greater amberjack is at 72 percent of the quota. Landings are a little bit higher than last year; and the quota was met last year. It was not closed in season. Vermilion snapper closed on the 12th of September and the quota was exceeded by 5 percent. That is a summary of that.

DR. DUVAL: Are there any questions for Jack on the commercial landings' information? Mel.

MR. BELL: It is not a question about the data itself; but would it be possible to get that document? I think we're working off the older one; and I can't read either one of those. It would be helpful to have what Jack is using.

DR. McGOVERN: I'll send it to Mike and get him to e-mail it to the council members.

MR. BOWEN: Jack, you mentioned cobia was about to close and the porgies complex was about to close. When does the fishing year for those two species begin? What I'm getting at is if it begins January 1 – and I don't know that it does; but if it does, that just says we're close to being where we need to be is the point I'm trying to make.

DR. McGOVERN: The fishing year begins January 1st for both of those.

DR. DUVAL: Any other questions or comments for Jack? Mr. Cox.

MR. COX: It was just interesting to see how hard we're fishing on these vermilions and how earlier it closes every year. I just wanted to make that point.

DR. DUVAL: Anything else on commercial catches? If not, I believe Dr. Farmer is going to take us through the recreational catches.

DR. FARMER: We're going to cover South Atlantic recreational landings for snapper grouper and the dolphin wahoo complex. Some quick notes on this landings' data; I know most of you have gone through one of these presentations at least once before and probably most of you many, many times. These are summarized using either MRIP or MRFSS.

The MRFSS data is back-calibrated from MRIP and that is dependent on how the ACL is calculated. The landings' estimates are updated by SERO so that they're consistent with ACL monitoring; so we post-stratify the Monroe County area for the recreational data when necessary to be consistent with stock assessments.

This is going to include data through Wave 4 of 2014. For the 2013 landings and ACLs; the two species on this particular slide that went over are golden tilefish and gray triggerfish. Tilefish went over pretty early so we had a closure in June. This slide you can see that we went over with porgies just by a little bit, with the snappers complex by a little bit; and quite high over with snowy grouper, 392 percent, and that was closed at the end of May.

In 2014 we have an overage with Atlantic spadefish. With data through Wave 4, we're at 204 percent of the ACL. We had a closure of golden tilefish in June and did not exceed based on the

numbers we have so far. Gray triggerfish actually closed on the 26th of November; so that is closed now. Hogfish is at 111 percent of the ACL.

The porgies complex is at 98 percent and closed on the 17th of September and snowy grouper closed on the 7th of June. For the 2013/14 season for these species that have a non-January through December fishing year, greater amberjack and black sea bass; the greater amberjack got to 69 percent of the ACL and black sea bass hit 53 percent of the ACL.

For our preliminary 2014 and 2015 data, we've got greater amberjack at 60 percent and black sea bass recreational down at 17 percent of the ACL. This is a table of black sea bass recreational landings. These are in pounds whole weight and you can see what in this table where we have the fishing year; then we have the landings by charter, headboat, private and shore; and then total proceeding through time.

You will note that for most of these – I think for all of these you're going to see either a blank or a zero for the 2014 and 2015 season for the recreational headboat; and that is because we don't have that preliminary data yet. Those 2014 and 2015 totals are not going to include the headboat landings.

In these graphics, I'm going to show you these for a few species, so I will introduce this one. This is landings in pounds whole weight on the y-axis there; the Y-1 axis. Then on the Y-2 axis on the right-hand side, you're looking at effort, and that is expressed as angler trips. Those are angler trips for MRFSS and that is times a hundred; so they're actually much higher than that; and then headboat. What you're looking at are the two lines here.

The orange line that goes across the graphic there; that is going to be the headboat angler trips; and the red line that goes across there, that is the MRFSS angler trips. The black dots are the ACLs and/or the quotas; and they're all I think consistent with the ACL in the South Atlantic. Then we've got the landings in this stacked bar graph. The blue is going to be charterboat; the red is going to be headboat; green is private; and purple is shore.

That will orient you to these graphics and so you can see the trend in the recreational black sea bass landings through time here. Again, you can note in the 2014/15 season you don't see any red; and that is because we don't have the headboat data yet for the 2014/15 season. For gag grouper, a similar table; and then here is the graphic, and you can see the landings relative to the ACL; so we have been pretty far under the ACL for gag grouper for several years running now.

Here is greater amberjack; and in the figure you can see for the last two years it looks like we've been under. We exceeded it in the 2012/13 season. Here is mutton snapper; and there is mutton snapper relative to the ACLs; and yellowtail snapper, and yellowtail snapper relative to the ACL. You can see we have been well under the yellowtail snapper ACL.

Here is red porgy, and there is red porgy relative to its ACLs; vermilion snapper relative to the ACL, so we've been under for vermilion for the last four years. Snowy grouper is one with – the landings are in numbers; and it is highly dynamic. There is a lot of uncertainty in the estimates because it is such a low ACL.

You can see the landings relative to the ACLs and how low the ACLs are relative to some of the historical landings for snowy grouper. Here is golden tilefish; similarly it is in numbers; and you can see again the noise in that time series; some really high spikes for recreational landings here and there.

Then we move into dolphin and you can see we've got some pretty high landings of dolphin fish. This is going to include the area from New England all the down to the east coast of Florida. There is your dolphin fish landings and effort relative to the ACLs; and for wahoo a similar story. We did exceed in 2012 on wahoo, but we've been well under the last two seasons. Any questions?

DR. DUVAL: Are there questions for Nick about any of the recreational harvest information? I would just say thank you again. I know that is often labor-intensive to put together that particular presentation and incorporate the effort data, but it is so informative for us. We really appreciate the fact that you take the time to do that. Mel.

MR. BELL: Is that the first time spadefish has ever closed recreationally? I don't remember that ever happening.

DR. FARMER: I can't recall. It hasn't been managed under a quota up until very recently; and so, no, I don't think it has been exceeded prior to this.

MR. BOWEN: To that point, Dr. Farmer, but 200 and something percent of the ACL, and that is through Wave 4; is that correct?

DR. FARMER: Yes, that's correct; and you'll get a lot of spadefish landings from the shore mode because you can catch them off piers and stuff like that. I could look into the breakout of the landings by mode and see where that is coming from; but again it is one of those species we're in a recreational survey with a relatively low ACL. It is found pretty ubiquitously along the coast.

You could get some pretty big spikes here and there; and those could be an artifact of a really high catch rate in an area that has high effort. They survey a couple of people that maybe went out and actually targeted spadefish for whatever reason or it could be a real thing where maybe there has been an increase in spadefish targeting through time.

MR. BOWEN: And will it close or is it scheduled to close or is it closed? I didn't see where it said it was closed.

DR. FARMER: Dr. McGovern probably has a better sense of this; but a lot of our species in the South Atlantic, we don't have an in-season AM for them. What happens is if they go over in one season, then the next season we monitor their landings more carefully and look at doing an in-season closure because of that.

MR. BOWEN: I understand; thank you.

DR. McGOVERN: I wanted to add that the council is considering an amendment that will look at an in-season closure for these species recreationally; and Brian is going to go over that probably tomorrow.

DR. DUVAL: Yes; that is in our Joint Snapper Grouper/Dolphin and Wahoo Committee. Mel.

MR. BELL: So in regards to next year, if we indeed exceed it, is there a payback or not?

DR. DUVAL: Any other questions or comments for Nick on the recreational landings? Okay, seeing none, then I think the next thing is the status of amendments under review; and Dr. McGovern is going to take us through that as well.

DR. McGOVERN: I'm going to go over a few amendments. Regulatory Amendment 14; this amendment revises fishing years for greater amberjack and black sea bass; commercial trip limits for gag and black sea bass; and recreational AMs for black sea bass and vermilion snapper. The proposed rule published in April; and the comment period ended on May 27th. The final rule published on November 7th; and it is going to be effective on December 8th.

Regulatory Amendment 21 redefines the minimum stock size threshold for eight snapper grouper species. The proposed rule published in August with the comment period ending on September 2nd. The final published on October and it was effective on November 6th.

Amendment 29 modifies the ABC Control Rule for unassessed species, data-poor species. It calculates the new ABC values for 14 unassessed snapper grouper species; revises the ACLs and ACTs for three species' complexes and four species; and it revises management measures for gray triggerfish. The amendment was submitted for secretarial review on October 15th; and we published the Notice of Availability for the amendment on November 24th. We expect the proposed rule may publish this week.

Amendment 32 would remove blueline tilefish from the deepwater complex; establishes commercial and recreational ACLs for blueline tilefish, blueline tilefish AMs; and revises the deepwater complex ACLs and AMs. Amendment 32 was submitted for secretarial review on November 14th. We hope to get the Notice of Availability package to headquarters this week and the proposed rule package out next week.

Regulatory Amendment 20 would increase the ACLs for snowy grouper; adjust the rebuilding strategy for snowy grouper; increase the trip limit and modify the recreational bag limit. The amendment was approved for secretarial review in September and was submitted today for secretarial review and we're working on the proposed rule package for that. That completes that, Madam Chair.

MR. COX: Dr. McGovern, do you think that the snowy increased trip limits will be in place by January 1st?

DR. McGOVERN: No; it will be sometime next year, but it won't be January 1st. We haven't published the proposed rule yet and it just got submitted today. It will be a while. It will be probably in the middle of next year.

DR. DUVAL: Any other questions of Jack on the status of amendments right now? The next item is the Snapper Grouper Advisory Panel Report, and Jim Atack, our Snapper Grouper AP Chair is here to present that. That is Attachment 2 in your briefing book.

MR. ATACK: What I will do is go through the report that you have in front of you. I know we're a little behind, so I'll go ahead and just go to the highlights. Under Regulatory Amendment 16, the following highlights were there were concerns that the council was not given credit thus far for measures that have been implemented; the endorsement program for pots, restriction on the number of pots and soak time, et cetera.

There have been no documented interactions between black sea bass pots and right whales. Amendment 18A drastically reduced the effort effectively creating a day-boat fishery. Common sense indicates that there is very little risk to whales, especially since there has not been a single interaction between a whale and a black sea bass pot even when the number of pots in the water was much larger with longer soak times.

While effort could potentially shift based on the area that is closed, it is very unlikely; and the price of black sea bass is higher in the winter, North Carolina wants their winter fishery back. We made a couple of motions. One was to remove the annual November 1st through April 30th prohibition on the black sea bass pots. That was approved by the AP with four opposed.

The next motion was the council should consider a separate ACL for the hook-and-line sector if the black sea bass pot closure in the winter is removed. They're concerned that if the pots are allowed to fish in the winter; that they will fish out the ACL and then the hook and line won't be able to continue to catch black sea bass in the spring and it would increase bycatch mortality.

On Regulatory Amendment 22, the AP had some comments on 22. Some of it was that it doesn't make sense to increase the bag limit on gag is what some of them were saying. There was some support from the recreational divers, but hook-and-line fishermen aren't catching these fish. I guess people are worried about really the assessment of the stock – is the stock really doing as well as the assessment shows.

We need to have better information on the landings before increasing the gag bag limit. The current preferred alternative to modify the gag would reduce the gag ACL for the first couple of years. However, once the Regulatory Amendment 14 comes into place, there will be a step-down for gag and the season will be extended.

There are currently only three fishermen fishing for wreckfish. The last three years the ACL has been landed. Also, in the last three years the recreational sector has had zero landings. Why have the recreational ACL set so high if nobody is catching them? It is taking fish away from the public. The Comprehensive ACL Amendment set the initial ACL for wreckfish.

At the time the council was concerned that the recreational sector was targeting wreckfish and there should be an ACL. However, there are few drops or intercepts through MRIP. The motions that were made was for the preferred for Action 1 is revise the annual catch limits and optimum yield for gag where the ACL equals OY equals ABC. That was approved.

The other motion was recommend Alternative 1 as no action as the preferred to Action 2 about modifying the bag limit for gag. The other motion as preferred is revise the annual catch limit and optimum yield for wreckfish. The ACL for 2020 would remain in place until modified. There was a motion that council should consider a 1 percent recreational allocation for wreckfish.

The Joint SA/GM Amendment for the South Florida Issues; we talked about yellowtail snapper. The amendment includes options to delegate management of both commercial and recreational fisheries to South Florida. The council would set ACLs and the state would set size limits; also looking at removing the requirement.

There was support from the commercial AP members to keep FWC out of the management of the yellowtail snapper. If there was a closure due to the commercial ACL for yellowtail snapper, it is best if it happens in the summer instead of during the winter when prices and demand are higher. They're talking about having like an August 1st start date for the lobster fishery along with the yellowtail snapper; to put those together.

One comment was the yellowtail spawn in May, June and July; so if there was a closure due to an ACL, you'd protect more of the spawning season by starting it on August 1st. The motions were keep yellowtail commercial management at the council level. That was approved by the AP. The next motion was change the commercial yellowtail fishing year to being August 1st. That was approved.

Mutton snapper, a similar proposed options for management as yellowtail. The AP made the following motions. Keep mutton snapper commercial management at the council level and change the commercial mutton snapper fishing year to begin on August 1st. The next motion was do not set a commercial trip limit for mutton snapper during the general season. That was approved by the AP. Then set a commercial trip limit of ten fish per person per day for mutton snapper during the spawning season. They would like to see a step-down in the spawning season.

There was some discussion about that; that supposedly the recreational bag limit of mutton snapper can currently be sold during the spawning season closure, but it should not really be allowed to be sold if there is a spawning season closure of the recreational bag limit. There was also concern that the ten fish per day during the spawning season is too many.

If you're in a spawning season closure, ten per person is a lot of mutton snapper. If they're spawning size, they're probably relatively big fish. Black grouper; similar proposed measures as yellowtail and mutton. The AP did not make a motion but indicated their support for this action. The amendment includes alternatives for allocation between Gulf and SA with an overall ABC and ACL.

These alternatives are being developed because the Gulf has ACLs that are not sector-specific. The ACL is combined for both commercial and recreational sectors. This should be addressed. AP members expressed concern about the ability for the Gulf to catch the majority of the ACL. Specifically, the ability of the commercial longline fishery in the Gulf to catch black grouper would create an unfair advantage.

Then they talked about hogfish. Options to change management were removed from the amendment. The hogfish stock assessment is pending SSC review. Note there are three genetically
different stocks.

Amendment 36 was the SMZs. AP members showed some skepticism and stated this is another way of creating MPAs. They expressed concerned that current spawning season closures are not being considered; and also some of the MPAs that are in place may not be effective. There was concern about using the SMZ process. With MPAs the process is more deliberate and involved. The SMZ approach would limit the opportunity for public input; and supports for establishment of SMZs specific to spawning seasons.

The AP made the following motions. Select Alternative 2 for Action 3, which is the SMZs off North Carolina. They recommended the Malchase Wreck and the 780 Bottom. That was approved. And then for South Carolina they did not choose a preferred alternative. SMZs off Georgia; they recommended investigating the following new spawning areas, which is the MPA Reconfiguration for Georgia and the St. Simons area.

Then the AP declined to make further recommendations for candidate areas at this time, citing the lack of analyses. There is going to be more analyses done and presented to the AP. They want to hold off on any decisions until the staff gives us more analysis so they can make better informed decision. We wanted to remove Action 8, which was time/area spawning closures. They felt like if it was a closure, it should be pretty much year-round and not just a time/area spawning closure.

Then a motion was made for every square mile the council closes with the new SMZs, they open up at least an equivalent amount of previously closed areas; so there is not more loss of fishing grounds. Amendment 35; recommend analyses of preferreds under Action 1, removing black snapper, dog snapper, mahogany and schoolmaster; removing those from the fishery management unit. That was approved with one opposed.

The next motion was recommend that the state of Florida require a valid snapper grouper permit for the sale of these species; so that was approved by all but one, one opposed. Then recommend Alternative 3 under Action 2 as preferred. It was modify the eligibility to fish on the 500-pound gutted weight commercial golden tilefish hook-and-line quota. That was approved unanimously.

The recreational tag program; we really had no recommendations on that. We got the update on it. The stock assessment updates we did. Then hogfish and mutton snapper updates; both assessments were conducted through FWC and we're waiting to get that presentation once it goes through the SSC.

The next motion was that the council move forward with implementing voluntary electronic logbook reporting for all federally permitted vessels. The next motion was that the council consider a voluntary electronic reporting system for the private recreational anglers to improve recreational data collection.

Under other business we had a few other motions. One of them was recommend to the council that South Florida become a separate management zone; so nine were in favor of that, two were opposed. The next motion was recommend that the council consider implementing a limited entry program for the for-hire sector. The last motion was recommend that the council consider changing the start date of the fishing year for the commercial hook-and-line golden tilefish fishery to March 15th. That is the conclusion of the report.

DR. DUVAL: Are there any questions for Jim at this time regarding the AP report? Jim is also going to be around here all day tomorrow and will be present during our deliberations on all these amendments; so we can certainly call him back up at this time. Zack.

MR. BOWEN: Thanks, Jim, that was a good report. Talking about the gags; you said some of the people thought that we shouldn't increase the bag limit; but I think that vote was unanimous, was it not? Do you recall; I think it was unanimous that they did not want to increase the bag limit, I think. That's the reason I'm asking.

MR. ATACK: I think so; and the chairman can't vote.

DR. DUVAL: Probably what Jim is saying is if the chairman had been allowed to vote; the vote might not have been unanimous.

MR. BOWEN: That's right; the chairman is also a recreational diver.

DR. DUVAL: Are there other questions for Jim at this time on the advisory panel report? Ben.

MR. HARTIG: I was going through the minutes, and I thought saw something about you did something with the recreational bag limit for muttons, but I don't see it in here. Maybe I'm wrong. I see you addressed the commercial, but I do not see where you addressed recreational.

MR. ATACK: Well, we talked about the ten fish per person bag limit particularly during the spawning season, but I don't think we really spent much time talking about the rest of the year.

MR. HARTIG: All right, I'll go back and look at that in a little more detail; thanks.

DR. DUVAL: And there was a lot of discussion, Ben, I think about a little bit of confusion about how the commercial sector is held to the recreational bag limit during the spawning season and what that actually means in terms of commercial harvest and sale. There was actually a pretty lengthy discussion about that; and like Jim said, it moved on to whether or ten fish is actually too many during that spawning season time. Any other questions for Jim or comments?

If not, like I said, Jim will be around for the rest of the meeting, so we certainly can call him back up here to provide input from the AP's perspective. The next item on the agenda is the SSC Report; and Dr. Marcel Reichert, who is our SSC Vice-Chair, is here to give that report. I believe this was e-mailed around to everybody earlier so you all should have this.

DR. REICHERT: Dr. Barbieri sends his regrets. Luiz had a scheduling conflict so I will present the SSC Report. That is of the meeting we held in October. Prior to that meeting, we had a workshop discussing the ABC Control Rule. We reviewed the existing ABC Control Rule. Unfortunately, there is a lack of data at this time to adequately evaluate the performance of the current ABC Control Rule.

At this point the SSC does not recommend any major changes. However, we will continue the discussion and there will be a report that we will review in our April meeting. The SSC also reviewed the SEDAR activities. We accepted the SEDAR assessment priorities and project schedule. We also recommended to involve state agency staff that regularly participate in SEDAR Data Workshops in the SEDAR Data Procedural Workshop that is being planned.

Furthermore, the SSC recommended devoting a South Atlantic assessment slot to a workshop that can address several data-poor stocks and potentially apply a suite of methods to assess these stocks. I realize the discussion we had earlier relative to the tightness of the schedule and available Science Center personnel; but the SSC thought that this was a good way to address a number of stocks in one workshop.

The SSC also reviewed the National SSC Meeting, which will be held in February in Honolulu. The theme for the meeting is providing ABC specifications in the face of uncertainty from data to climate and ecosystems. Discussion points will be to evaluate the current ABC Control Rules across the nation and setting ABCs in data-limited situations – the various SSCs across the nation have discussed the data-limited stocks extensively as has our SSC – and also to incorporate ecological, environmental and climate change considerations into the stock assessments.

Dr. Barbieri, Cadrin, Crosson and myself will be the representatives for the South Atlantic SSC; and Mike Errigo will attend as the council staff. John Boreman and Jim Berkson will also attend the meeting; but they will be representatives of the Mid-Atlantic SSC and the Caribbean SSC. The SSC then reviewed the Hogfish Benchmark Assessment that was conducted by the Florida Fish and Wildlife Research Institute.

The SSC first considered the evidence of stock separation and the justification for conducting separate assessments; on the one hand the Georgia/North Carolina stock and on the other hand the Southeast Florida/Florida Keys stocks. We had considerable discussion about the evidence of stock separation and the justification for conducting separate stock assessments.

Points of discussion included that the dividing point between the Georgia/North Carolina and the Southeast Florida stocks is not well-defined. One reason for this is that it was the lack of genetic samples covering northern Florida through South Carolina. However, the genetic evidence that we currently have does suggest a distinction between the stocks.

We also discussed whether there is a true biological difference between the growth parameters between the different stocks and whether the observed differences reflect an age truncation due to heavy fishing or whether they are a true stock trade. However, the SSC still accepted treating the hogfish as two stocks. Each assessment was then evaluated with regards to fishing level recommendations.

I will first discuss Georgia/North Carolina stock. The SSC basically agreed with the recommendation from the CIE reviewers not consider the assessment results for this stock as sufficient to determine stock status and inform management decisions. We felt that the statistical catch-at-age model was not an appropriate model to analyze the available data; and as such, we did not consider the assessment the best available science.

As a result, we applied the ORCS method for the ABC; and I believe in your presentation it says SBC, but that is a typo. The risk of overexploitation was moderately high for this species, which resulted in an associated scalar of 1.25. Maybe you remember that in the ORCS method we used for this species a range of years from 1999 to 2007; and that includes a year with the highest landings of 1999.

It also states "and not OFL" because we cannot determine an overfishing level because that does not come out of the assessment. Then we also applied the council's risk scalar, which is the preferred in Amendment 29, of 0.7; and that results in a proposed ABC of 28,161 pounds for the Georgia/North Carolina stock.

For the Southeast Florida and Florida Keys stock, although the SSC had some concerns, we still felt that this assessment represented a significant improvement from the methods that were previously used to set an ABC for hogfish. We recommended that this is the best available science and the assessment is recommended for fisheries management decisions.

However, there were some concerns. We felt that the productivity was not well estimated. Estimates suggest that the stock began at the very low biomass at the start of the time series and dropped slightly over time, resulting in a lack of contrast. We also felt that the observed growth rates for this stock are below that of the Georgia/North Carolina stock; and whether this is due to the high exploitation indicated by the model or the geographic habitat differences is not entirely known.

From an assessment modeling perspective, there is a large variability in the input of the growth data; yet there are small CVs assigned to the growth model used internally by the model. Also, the likelihood profile for the unfished recruitment or R-zero was unavailable; and the SSC felt that this diagnostic analysis would be very informative given the narrow range of the stock abundance seen in this assessment.

Unfortunately, this range may not provide enough contrast to infer stock productivity and determine stock status given the amount of uncertainty in the input data and the model assumptions. The SSC also had some serious concerns regarding the fact that the data-weighting procedures were not used in the assessment.

Although the effective sample sizes were calculated, they were not used in reweighing the different data sources used in the assessment. Lastly, the SSC also felt that although the estimated dome-selectivities seem justified, the degree of doming represented an additional concern. For instance, the terminal selectivity was fixed at zero for some fisheries.

However, the SSC still felt that this was a considerable improvement and the best available science; and as a result of this stock assessment, the stock status was overfished and overfishing was occurring. With that, the SSC applied its ABC Control Rule; and since this assessment falls under the Assessment Tier 1, the ABC was obtained according to the P-star value.

The details of those decisions are in the report, but I can elaborate a little more if you're interested. The ABC Control and stock projections yield at a P-star of 27.5 percent and a P rebuild of 72.5 percent. There were some preliminary analyses done after the stock assessment; and John received those the other day. I haven't had the chance to take a look at them nor had the SSC. I think it seems to indicate that rebuilding can occur within ten years at 75 percent Fmsy; and John may be able to answer some more questions if you have any.

Then regarding the next assessment, the SSC felt that should happen in five years and should address the concerns that were put forth by both the SSC and the CIE reviewers. We also recommended that the next assessment explore the use of other classes of models with possibly less complexity instead of just a statistical catch-at-age model. Before I move on, if you have any questions, let me know. Otherwise, I can entertain questions after the end of this presentation.

DR. DUVAL: Are there any questions for Marcel at this point regarding the hogfish assessment? I see John at the table. John, I didn't know if you wanted to mention anything about the projections that came through.

MR. CARMICHAEL: We did get some projections. This is in an overfished condition so it will need to be rebuilt. We have some projections; and mainly what we're looking at is some of the original things that were done when this assessment was first completed, which shows at which point the stock gets rebuilding for F levels. It can rebuild in ten years and a rebuilt in about six years at the 75 percent Fmsy level, which is pretty close to the P-star of 27.5 F rate.

That might be one rebuilding strategy to consider; and it would give you – the OFL, say, in 2013 was on the order of 70,000 pounds for this stock; and then 2013, around 50,000 pounds would probably be the rebuilding F level; and then the rebuilding landings level; and then it starts going up from there each year as the stock gets a little bit better.

Of the three stocks, it is three stocks and then in the Atlantic we have two components of it that we're dealing with primarily. The biggest portion on the Atlantic is this section in the Keys, the biggest stock component. Assuming this goes forward, we'll need to set up a rebuilding plan and we'll have to ask for some additional projections from the folks at Florida.

It has been a little bit complicated because they have dealt with staff turnover; and the guy who did the assessment, Wade, has now moved on, so Mike Murphy has been trying to jump in and

get the information we've needed as he is working on the red drum assessment, near and dear to you state folks. They've been kind of working with us and trying to get some information.

I felt like we had enough to at least get started down the rebuilding path. The other complication is that this Keys stock, the boundary line was set at the Collier/Monroe Line on the western coast of Florida; so that crosses over into the Gulf a bit. One thing to be considered is will this go down the path of being a joint plan – I think the Gulf SSC is looking at this assessment in January – or is something where maybe the Gulf will allow the South Atlantic to just take this component and set up the rebuilding plan and make things a little bit easier I guess in that regard where you guys could go ahead and set the rebuilding parameters.

But once we figure out what the rebuilding plan is going to be crafted around, we can ask Florida to do the projections that show you the actual landings. I presume there will be alternatives so we'll have to ask them to do F equals zero, F current, F 75 percent Fmsy, 72.5 percent chance of success.

There will be several different things they have to do. It didn't seem like it was worth getting them to do preliminary numbers with all that and not even knowing where it was going to end up. It seemed like we had enough to deal with to get you started at least and probably address this Gulf question is one of the biggest ones in my mind.

DR. DUVAL: I know that it has been brought up to me that the advisory panel has been concerned about hogfish for some time; and they have previously recommended size limit increases, at least to a 14-inch minimum size limit, and I know that they were anxious to see something get going. Obviously, a rebuilding plan I believe requires a full plan amendment; is that not correct? I see Monica nodding her head.

That is going to add to the time frame, but certainly the whole boundary issue needs to be settled first so that we figure out who is doing what. If we're doing something jointly with the Gulf for that Florida Keys stock; that is going to take a little bit longer. I guess my only question might be since the Georgia through North Carolina stock has a recommended catch level by application of the ORCS approach; would we need to wait before doing anything, although I'm rethinking that as I'm saying that, because it would just make sense to wrap everything on hogfish into one amendment.

MR. CARMICHAEL: Yes, it really would because if you pull that out, but then what do you have in place for that other stock component? If you pull the Georgia/North Carolina out and just change that; I think that probably takes an amendment, too, because we're going from what is treated as one stock to something that is being treated as two stocks.

The thought I had –and it is because talking with Mark about this idea of numbers – is that means you're going to have to calculate allocations, I presume, for these two stock components now. I expect you've got to have a whole amendment because you're basically starting anew now with two stocks. So, yes, probably an amendment that deals with both at one time.

DR. DUVAL: Are there any other questions or comments on hogfish? All right, Marcel, move us along.

DR. REICHERT: Thanks for reminding me that I forgot to mention that division line of hogfish in the southern part of that Florida stock; so thanks for that, John. The SSC also intended to review the mutton snapper assessment that was also conducted by the Florida Fish and Wildlife Institute; however, the assessment was not complete and the SSC will review that assessment in the April 2015 meeting.

The SSC received a presentation by Dr. Nick Farmer on the analysis of the interaction of the black sea bass pot fishery and whale interactions relative to Regulatory Amendment 16. Overall the SSC felt that the presentation was informative and the approach of ranking the alternatives on a relative scale was supported.

However, we also felt that inferring that the analysis evaluates and quantifies the risk of whale encounters was not supported. With some refinement directed at providing some information on the error associated with the estimated scalar values for the alternatives, the analysis could allow the council to distinguish between the different analyses. I will talk a little bit more about that later.

There was some concern that a true characterization of uncertainty may reveal that certain alternatives or all of the alternatives may be indistinguishable from each other. The SSC expressed some concern about the lack of detailing the uncertainty characterizations in the analysis. Although several sensitivity runs were conducted to evaluate major uncertainties, the SSC expressed concern about the ability to discern the true differences between management alternatives given the information provided; and that refers to the remark I made earlier.

The SSC advised that further exploration and reporting of within-model uncertainties could improve insight into the variability associated with the model parameters; and it may help to distinguish between different alternatives that were considered. However, we also realized that conducting a more complete in-depth uncertainty characterization would provide a more robust picture of the proposed management alternatives. Given the amount of the uncertainty in the model outputs, we felt that at the very least it would be useful to explore the uncertainty in a subset of runs giving a better a picture how well this analysis can distinguish between the alternatives.

Dr. Farmer explained and we fully recognized that rerunning the original model using a bootstrap or a Monte Carlo Technique may not be feasible given the current timeline of the amendment. However, the SSC recommended to clearly define this particular deficiency in the analysis such that the council understands that the ranking of the considered alternatives might not hold true when a full uncertainty analysis was undertaken.

The SSC also cautioned that assuming that the model output of the co-occurrence between the black sea bass pot efforts and the whale sightings as a proxy for whale interaction or entanglement may overstate the model and the data capabilities. The final estimates of the value

in the presentation is actually a dimensional scalar and should be characterized as a risk or probability of encounters.

The committee recommended to present that scalar as a dimensionless value to avoid potential misunderstanding and the potential misuse of the term "risk". With that, the SSC recommended that perhaps it would be useful for a subcommittee of the SSC to provide some guidance to improve the uncertainty characterization; also, to evaluate the relative scalar based on historic and current efforts and also relative to how the blackfish pot fishery is currently conducted.

The SSC also requested that perhaps a presentation from staff from the National Marine Fisheries Service Protected Resources Division at the April SSC meeting could address some questions and the analysis that were used for the biological opinion and the analysis used to guide management. John, Luiz and I can probably talk with staff to see what specific questions the SSC had and could be answered. That was the presentation relative to Regulatory 16.

The SSC also received a presentation on the bag limit analysis. The SSC felt that the gag bag limit analysis is sound and the general methodology was accepted as the best scientific information available. Specific to the gag analysis, the SSC had some recommendations. The changes in angler behavior was not explicitly accounted for, but we felt that represented kind of a worse-case scenario.

Also, assuming that all trips reaching the current bag limit will also meet a higher bag limit is optimistic; and again I think that resulted in a worse-case scenario there. We also felt that it would be future analyses to explore alternative catch rates and success assumption. As to general analysis recommendations – and that is not necessarily limited to the bag limit analysis – we felt it would be useful to provide the SSC with any comments from the Science Center on analyses offered for review that would help us with our review.

Also the SSC supported establishing an ad hoc SSC subcommittee that could review management analyses, not necessarily limited to the bag analyses, but any type of analyses that would be used for management advice; and do that outside of the regular SSC meetings; and then the full SSC could review the recommendation or the review by that ad hoc subcommittee. That means that once that method is reviewed by the subcommittee and then accepted by the SSC; that method could be used without further review by the SSC until significant changes were made to that analysis; and that may help streamline the decisions by the SSC and may avoid some duplication in effort.

With that; that completes the report of the SSC. I would like to mention that the additional slides to this report are for the king mackerel stock assessments and I will present those slide on Thursday during the Mackerel Committee. With that, I will entertain any questions you may have.

DR. DUVAL: Are there questions for Marcel regarding anything in the SSC Report at this time? Again, Marcel is going to be here at least through the Mackerel Committee.

MS. BECKWITH: There was a lot of concern expressed for Amendment 16; and I think part of that discussion will come out when we start talking specifically about Amendment 16. Yes, definitely stay close because the concerns about the ranking and what does the proxies really mean; I think we need a more layman's explanation of what this analysis actually provides and if the SSC felt like these concerns were properly addressed. Rather than necessarily going through that now, if it is not an appropriate time, we can wait until we get into the discussion for Amendment 16; but that would be my first one.

DR. DUVAL: Since we're going to be getting into that discussion as our next agenda item, I would just ask Marcel to stay up here at the table; and if there are specific questions regarding some of the SSC's concerns, after we have some of the presentations, it would be appropriate for you to weigh in on that.

The next item on our agenda is Regulatory Amendment 16, which is the black sea bass pot closure. We have a number of presentations that are going to be given for this. We have Dr. Mike Errigo, council staff, who is going to provide a presentation on the analyses requested by the council.

Then we have a presentation of protected species issues that I believe Barb Zoodsma and Bob Hoffman are going to provide; and then after that we have Dr. Nick Farmer, who is going to run through the analysis that was provided to the SSC regarding the modeling approach that was performed.

We do have the decision document for this amendment; and that was listed as the first item for staff to go through. It seemed to me like it might actually make more sense to go through some of those presentations first and then get to the decision document, but I just wanted to check in with the committee on that.

If we do go through the decision document first, I guess I would just suggest that we go through it for informational purposes only and any committee discussions about decisions or selection of a preferred alternative would wait until after we receive the presentations. What is everyone's pleasure; would you like to go through the presentations first and then the decision document?

MR. HAYMANS: The presentations first.

DR. DUVAL: The presentations? Okay, so the first presentation would be the analyses requested by the council that I believe Dr. Mike Errigo is going to provide for us. It is actually Attachment 4B, but I think an updated version was sent around by e-mail.

DR. ERRIGO: I'm going to go over something the council had asked for, which was a look at the sea bass pot fishery effort before and after 18A was put into effect and then there were a couple of questions asked at the SSC about where the sea bass effort was going. This presentation is just one of the attempts to try and get at some of those questions.

This is what I'll be talking about in this presentation. It is the overall effort before and after 18A for all the permit holders and then just looking at the current endorsement holders, the pre- and post-18A; and then the effort and percent landings by statistical area.

Those are the statistical grids on the logbooks before and after 18A for all the permit holders and the endorsement holders only; effort and percent landings by month before and after 18A; and that's to get at what is going on in that time period that is currently closed as opposed to the period that is currently open historically versus currently; also by depth; and we will look at the effort by depth but not in great detail.

I used 20 meters as a cut-off point and I'll show why. I had a 20 meter contour on a map and I had some maps of sightings-per-unit effort. I was able to relate where the right whale sightings-per-unit effort was and then the black sea bass effort was; just to show where those things are happening.

Then I have some maps that overlay the black sea bass pot effort in rough terms and some right whale sightings-per-unit effort by season. That data comes from the Atlantic Large Whale Take Reduction Plan. They did a co-occurrence model in that. I took the maps and overlaid them onto each other.

MR. BELL: What is the effective date of 18A?

DR. DUVAL: It was actually July 1, 2012, I believe. Remember, we delayed the season by a month. Normally the season would have opened June 1st, but we delayed it by a month so that the regional office could get sort of all the components of the endorsement program together.

DR. ERRIGO: I want to just tell you a little bit about the data that I used and how I broke it up. The data all come from the commercial logbooks, which were provided by the regional office. All the analyses were done by fishing year when I looked at it and averaged it over years; but, of course, starting next year the black sea bass fishery will start on January 1st; so there is a difference there. In the past it had been started June 1st; so I did the analyses that way.

I have years from 2000 to the current fishing year, which is 2013 and 2014, but no data from 2014 because the fishery was closed up until June; and then I didn't have any of the data from the current fishing year. Then 2000 to 2009 period, I used that as the pre-18A period; and then 2012 to 2014, I used that as the post-18A period for comparisons.

I left out those times in the middle when we were closing very rapidly due to the ACL being clamped down because of the rebuilding plan. I tried to leave out years during the rebuilding plan as best I could. There wasn't a lot to work with recently. I took all trips that reported landings of black sea bass by trap. Depth is always in meters and you'll see depth bins. All the depth bins are in five-meter increments.

You will see like the five-meter depth bin; that means all landings that came in and reported landings fishing in five meters up to like 9.9 meters; so it is the beginning of the depth bin; and that is the number you'll see.

All the landings' data are in pounds gutted weight and all the right whale sightings-per-unit effort is from the Large Whale Take Reduction Plan Co-occurrence Model. Then the maps just show the location of the sightings-per-unit effort, and they don't show the magnitude, which is shown in the actual graphs. I didn't go into the level detail. I just wanted to show where sightings-per-unit effort was occurring.

Here is the first graphic of effort. This is all permit holders; and what you're looking at is the number of active permits in the first column and then the number in parentheses is the percent decrease from the earlier periods to the later periods. This is averaged over the time periods. You see the number of permits.

The number of traps; that one is the total number of traps fished for the permit holders; so it would be kind of like the average number of traps that each permit holder fished; and then you add all those up in a given year; and then that is averaged over the time period. Then the total number of trips taken each year averaged over the time periods and then the percent decreases. It is around a 50 to 55 percent decrease in these metrics over time.

The next one is just looking at the endorsement holders. The current endorsement holders, if you look at just the number of trips that they took and the number of traps that they used on average before 18A and then after 18A; they also showed a decrease in the number of trips that they're making and the number of traps that they're using, which makes some sense.

The number of traps should have went down because 18A put in a trap limit for how many traps a person could have maximum. For trips, there are several different reasons; the differences in the ACL but also catch rates tend to be higher now than they were before because the stock is rebuilt at a higher level; and I'll show some graphics later that show that.

There is over a 50 percent decrease in effort on average across the fishery before and after 18A for all permit holders; and then if you just look at the endorsement holders, they also see a decrease; and like I was saying not only due to the difference in the ACL. The average landings in the earlier periods, although a bit higher, was not terribly different than the average landings are in the current fishing years.

It is partly due to the catch rates; the average catch per trap has increased over 89 percent in the recent years; so it was 13 pounds per trap from 2000 to 2009 and it is currently 24 pounds per trap on average, the catch rate, so they're catching sea bass faster now. They may not need quite as much effort or trips or time to catch the quota because the catch rate is so much higher, which would be why they aren't taking as many trips.

These are the statistical areas from the logbooks. Anyone who has put out a logbook probably has seen something like this. We will be looking at maps that have these on them. The ones in red are areas that were fished before 18A went into effect but are no longer – but for the last two fishing years no landings have come out of those fishing areas. The ones in green did have landings in the last two fishing years, the 2012 and 2013 fishing years.

That is what the red and green is. Then you will see they're by latitude and longitude; the lower numbers 29 and 30, they're in the Florida/Georgia area; and then 32 is South Carolina and then 33, towards 34, that's upper South Carolina and North Carolina. You will see some graphs that have those numbers on them just to show the progression of how it moves from Florida up to North Carolina.

There will be a series of these graphs. They're a little confusing, but all they're showing is the percent changes within these areas. The color coding is by state area from before 18A to after 18A. They're not relative to each other; just a percent change within a statistical area. That huge spike in 29/80; that is not in comparison to the other ones. It is just within 29/80 there was a huge increase. This is trips. There will still be one for traps, one for the number fishing.

There was an increase in the number of trips taken in that area; so there is a development of a fishery in Florida; but overall the yellow is all these areas and the purple is all areas that were fished combined. There has been decrease. The same graphic, but for traps, so again there is a developing fishery in Florida; but for the most part effort has decreased on average in terms of the number of traps that are fished.

This is the number of permits, which means basically the number of people that fish in each area or have landings in each of the areas. Basically it has gone down in most areas except for that one developing area off Florida and then the one area off northern South Carolina and southern North Carolina. This is a breakdown of those areas; so you can just see the numbers.

This is just to show the most important areas because I'll be focusing on those. 34/77 is the Onslow Bay area off North Carolina. That is where the bulk of the landings come from. That is where most of the permit holders fish. That is where most of the traps are being fished and where most of the trips are taking place. That is an important area to focus on.

The next one under that is 32/79; that is the one off of Charleston, South Carolina. That is another important one, but the jump-down in landings goes from 40 percent of the landings in Onslow Bay down to 17 percent of landings coming off Charleston; and then they go down from there. The real mass of the fishery is off Onslow Bay, North Carolina. Then there is just all the other areas.

And then just to show those pre-18A areas that people no longer fish in; before 18A they made up 8 percent of the total landings; so they're actually very, very minor. There was a question of how has the fishery shifted; has there been a shift away from North Carolina towards Florida? There has been somewhat of a shift in recent years into Florida away from North Carolina.

South Carolina has remained fairly stable over time in terms of trips, traps, permits and landings. North Carolina still comprises the majority of the effort and landings in the trap fishery; but there has been a pretty big increase off Florida. Although there was a spike in the 2011 and 2012 fishing year, it has decreased in terms of landings and the number of trips off Florida.

The take-home messages here is development of a fishery off Florida, but relative to the other areas it is not huge. It accounts for 17 percent of the trips and 14 percent of the landings in total.

Overall the effort has decreased in almost all of the statistical areas except for that one. Four of the five top areas had decreased in the effort matrix that I'm showing, except for that one off Florida.

Those top five areas that I show; they account for 90 percent of all the trips taken in the fishery in a given year on average and 92 percent of all the landings on average in any given year. Those five areas are where the fishery is taking place; so I'm going to focus on those and just made the analysis a bit easier. Because I focused on those, I don't have to worry about confidentiality, which is kind of nice.

Then the effort by season; this is historically so I can only show data from 2000 to 2009, because we aren't fishing in the November to April time period currently. This is just the endorsement holders, the current endorsement holders, the percentage of their trips and the percentage of the average traps that are fished in a given year and the average number of them that fish and average landings, percentage of landings that were taken in the November to April time period versus the May to October time period.

Blue is the November to April time period, which is the currently the closed period for right whales; and the red is the May through October time period. You can see that most of the effort and most of the landings historically came from those times, the times that are currently closed, November to April by quite a bit; 80 percent of the landings.

This is the average catch rate by month. Again, the blue is the November to April time period and the red is the May through October time period. The line is the monthly catch rate or catch per trap, average from 2000 to 2009, for just the endorsement holders. The horizontal lines are the averages for each of those two time periods.

The catch rates are much higher in the November to April time period than they are in the May through October time period for the endorsement holders from 2000 to 2009 on average with a spike in August for some reason. Other than that, January, February, March and December also are very, very high catch rates, higher than any other times.

To sum up that little section there, historically effort was 30 to 40 percent higher in the November to April time period; 80 percent of the landings came from then, which means that it is potentially economically important for the participants since historically most of their landings came from that time period for some reason.

It might be because their catch rates were 32 percent higher on average during that time period so much more efficient to catch fish during that time period may make their trips more economically viable since they can catch their trip limit in less time if their catch rates are that much higher. They may be able to catch the ACL quicker if they're able to fish during the November to April time period considering that their catch rates may be higher during that time period if that trend is still true today; especially since for today on average overall the catch rates are 89 percent higher now than they were in 2000 to 2009.

They may be even higher in the November to April time period now than they were 2000 to 2009; but there isn't any data, of course. I guess I could stop for questions at each section. I'm going through pretty quickly and there is a lot of stuff here. Does anyone have any questions so for? Feel free to stop me at any point; this is very dense.

MR. BROWN: Mike, on Page 16, under that graph, what was the reasoning or do you know why there is that spike in August?

DR. ERRIGO: I don't know why the catch rates are higher there. I didn't look into it that closely. I don't know if it is a function of the biology of the fish or a change in the method of how they're being fished. I can't speak to that; I don't know why that happens.

MS. McCAWLEY: Back in an earlier part of the presentation, why do you think there has been that shift to Florida; and maybe you tell us whether that is people that have permits off of Florida; are people coming from another state and fishing in that area? I'm just curious as to what more you know about that.

DR. ERRIGO: From conversations that I've had, I believe those are people who are from Florida who are fishing there. They live there. Why that is happening; I couldn't speak to that.

DR. DUVAL: I actually was looking at that, Jessica, as well; and one of the things, just in looking at the regulatory history, you see that shift in effort starting in Florida really like in 2009; and I believe that is when we implemented the shallow water grouper closure was probably like 2009. That kind of took away Florida's grouper fishery.

We know that the stock was beginning to rebuild at that point; so I wouldn't be surprised if catch rates are higher. I know that other folks have said – I mean, our council chairman has said that he has seen black sea bass in areas where he had not necessarily seen them before; so I think with that stock rebuilding, there was probably a little bit of expansion as well. Some of the shift in regulations and the rebuilding of the stock probably accounted for some of that effort shifting.

DR. CRABTREE: I think you're right about that. Remember, too, that was right about the time we shut down red snapper. We know who these guys are or who some of them are; and you may recall they were some of the ones who were heavily fishing for red snapper and got shut down; so they need to find something else to do.

MR. BROWN: Wasn't there an increase or some permits that were bought then and maybe a shift in effort because of people buying the permits?

DR. DUVAL: I don't know about buying permits at all. The endorsement program didn't go into place until 2012, if that is what you're asking about. I think initially Florida started out with only a couple of sea bass endorsements.

MR. BROWN: I know David Grubbs and King Seafood bought some.

DR. ERRIGO: This shift, you're right, started happening before 18A went into effect. I don't think this was people buying endorsements afterwards. This actually started happening in 2010 and 2011 when those percentages started to shift up; so it wasn't after 18A went into effect and people started buying endorsements. This started happening before that.

DR. DUVAL: Okay, any other questions on that part? All right, Mike, I think you can move along.

DR. ERRIGO: Okay, now I started looking at some of these things by depth in certain areas just to see where within these more I guess popular statistical areas the landings were happening. I broke it down in 20 meters. I had a nice contour. It was actually a ten fathom contour, which is 18.7 or 8 meters, but close enough to the 20-meter mark. Twenty meters was also one of the depths I believe cited in some of the papers where right whales tend to be sighted inshore or shallower than 20 meters and then it is very variable; and also the maps that I had of sightings-per-unit effort; most of the sightings-per-unit effort data was inside of the 20 meter mark; so I wanted to see how it all fell out.

This is the percentage of trips, this particular graph, that occurred. Blue is shallower than 20 meters; red is deeper than 20 meters. With the exception of Statistical Area 33/77, a great majority of the trips are happening deeper than 20 meters; but if you look all the way to the right side of the graph where it says total, which is the total for these five areas, and then all areas, which includes the areas that are not here, you will see that 80 to 85 percent total across all fished areas, the trips are happening in deeper than 20 meters.

So even though almost 40 percent of the trips in 33/77 are shallower than 20 meters; it is actually overall a rather small percentage of the trips. This graph here is actually the percentage of the trap deployments within areas by depth; not the number of traps but how many times people put their traps in the water.

If you took 30 traps out on a trip and then the next trip you took out 30 traps, that would be 60; and then the next trip you took out another 30 traps, that would be 90. That is how this is calculated. I had to do it quickly and it was easier to do it that way. This is the percentage of the trap deployments shallower than 20 meters, deeper than 20 meters; and it looks very much like the percentage of trips.

You will see again greater than 80 percent across all areas is happening deeper than 20 meters. Here is the percentage of the landings coming out of those areas; and most of the landings are coming out of areas deeper than 20 meters. Those graphs should hopefully put these maps into perspective. The black line is the ten-fathom contour.

Like I said earlier, ten fathoms is about 18.7 or 8 meters. It is a little shallower than 20 meters, but I had a little bit of a hard time finding what I needed on bit of a short notice, but it basically does what needed to do. The red outlined areas are the areas that we are talking about. The green is right whale sightings-per-unit effort from the Atlantic Large Whale Take Reduction Plan Co-occurrence Model.

This shows the sightings-per-unit effort from November to February. You can see there is not a lot of sightings-per-unit effort in the North Carolina area. However, there is a bit amount of effort especially in January and February. However, on the migration south, from what I understand of right whale biology, they tend to be older.

I've had some conversations with several different people and tried to read up as best I could. They're adults migrating south to calve; and they tend to be underwater longer; so the sightings tend to be a lot sketchier that time of year. However, if you look in South Carolina, there are a lot more sightings, but they're very compressed towards the shore.

There is effort further offshore. Effort doesn't start dropping off until – actually mostly around the shelf break here at the Carolinas; so there is effort there. There just aren't a lot of sightings in that area. They tend to be mostly compacted in towards the shore in the winter months so within the ten-fathom contour. That is where a lot of the sightings-per-unit effort is. Of course, the black sea bass effort is very much deeper than 20 meters.

This is the spring sightings-per-unit effort. Everything is exactly the same as the previous graph. You will notice here that you do see more sightings – you will see sightings in North Carolina which you didn't see before. In South Carolina, where there is more effort, you see a lot more sightings further offshore; so there is a lot more variation in where the whales are sighted in the spring months, which are March and April in this map.

This tends to be the time when mother and calf pairs are migrating back north after calving has occurred. There tends to be more variability in where they're sighted in terms of depth and distance from shore in the spring as they're moving north. It looks like there may be more overlap here with the sea bass fishery as opposed to the winter months.

In terms of the spatial overlap, there doesn't seem to be much in November to February. The whales tend to be closer to shore; and this is the time historically when most of the effort and the landings occurred for the black sea bass fishery. There is the possibility of more overlap in the March and April time periods when there are sightings in deeper water than there are in the wintertime period.

They're not very dense, though, and still unlikely to see. However, unlike the overlap, because the average maximum number of traps fished in a day by all the endorsement holders combined in March and April is 240. That is the most number of traps in the water seen from 2000 to 2009 in March and April was 240 traps on a given day. The average traps fished in a day is 75 for all permit holders.

I will just go over my conclusions real quick and then you can pepper me with questions. Overall, effort has been significantly reduced over 50 percent from before 18A until now in the fishery as a whole and for just the endorsement holders. There has been development of pot fishing off Florida, but there has still been a significant decrease in effort over all.

Winter does seem to be an important season historically for the sea bass fishery. Most of the landings and effort were concentrated in the winter months; and the highest catch rates occurred

in the winter months. The vast majority of the pots were fished deeper than 20 meters. Most of the right whale sightings-per-unit effort data is occurring shallower than the 20 meter depth or really on those maps at the ten-fathom depth contour most of the time that they're in the South Atlantic, especially in the Carolinas where the bulk of the effort and landings are occurring.

Also, fishermen tend not to use all the available traps on any given day. The maximum total number of traps fished in a day in the South Atlantic in the winter is 501 over the course of 2000 to 2009 and 240 for the spring. The average is 119 in the winter and 75 in the spring; so the winter months are really when the fishery occurred.

Total traps fished in the South Atlantic from 2000 to 2009 was 1,360 before 18A and 611 now. That is the total traps that are available. These estimates are the total traps that are fished. These estimates of the fishing were from 2000 to 2009 when endorsement holders fished more traps on average. Right now they're fishing 29 percent less traps; so these numbers may be lower now, the maximum number fished in a day, than there were then. I just don't have any data from those time periods; so I have no idea if that is true or not. That is what I have.

DR. DUVAL: That was a lot of information and we really appreciate all the effort you went to put that together. I'm going to take a few questions and then we're going to take a quick break and we'll get folks up here for the other two presentations from the regional office. Doug.

MR. HAYMANS: Mike, you won't hear another word out of me about Honolulu. Thank you for an excellent presentation. Really, you've covered all the bases we asked for in depth and more so. Back on Slide 22 where it is looking at the spring effort and right whale sightings and we see them migrating back northward; we do know or we think we know during that March and April time period we've already met our ACL by that point under post-18A, right? I mean, for the most part we're closed then.

DR. ERRIGO: Well, under Amendment 14 the season will start January 1st. It is unlikely that you will have met the ACL by March.

DR. DUVAL: So just to remind everybody, the upcoming changes with Regulatory Amendment 14, the commercial fishing year will begin January 1st with a 300-pound limit for the hook-and-line sector and then pots open up May 1st with a thousand pound trip limit; and the hook-and-line trip limit will move to a thousand pounds at that point. The recreational sector begins April 1st.

MR. HAYMANS: But the pot would still open May 1st. Even if we made a change under 16 to allow fishing during the winter; the season begins May 1st. There is a strong possibility that we will have met the ACL – no?

DR. ERRIGO: That is actually not true. According to the way the regulations are written, let's say you just remove – let's say there are no closures, we remove the closure, the pot fishery will begin on January 1st unless you change the fishing season for just the pot fishery to start at a different time. Right now the only reason why it starts May 1st is because there is a closure in place.

MR. BOWEN: I just wanted to let Mike know that's a hell of a presentation right there, very thorough, very deep, but I could understand it and you need to be commended. Thank you.

DR. DUVAL: Any other questions for Mike? Okay, I'm going to suggest that we take about a ten-minute break if that's okay with folks, and we'll let the regional office folks get up here and get their presentations loaded and we will go through this.

Let's start coming back to the table. We have a couple more presentations, folks. Just to orient everybody, the presentation that Barb and Bob are going to give was e-mailed around to everybody and just the title of that PDF is SG AM 16 NARW_ESA Considerations_Final. The title of the e-mail from Mike was SG Amend 16 Presentation, I believe. Okay, the presentation is up on both screens so I'm go ahead and let Barb and Bob get started.

MR. HOFFMAN: I have never spoke here before so probably most of you don't know me; so I'll introduce myself a little bit. My name is Bob Hoffman. I've been working in endangered species issues for 24 years; 16 of those with NMFS. I am the branch chief for the Endangered Species Branch in the Protected Resources Division. Today we're going to discuss right whales and ESA considerations. Barb and I are going to do it together. Barb is going to discuss the right whale biology and background stuff; and I'm going to discuss the actual Section 7 Consultation type issues. The first thing we're going to do is talk a little of right whale context; and Barb is going to do that.

MS. ZOODSMA: As Bob indicated, I'm going to give just a little introduction on right whales; and for further information you can actually go back to my presentation from I think it was September of 2013 where I went over a lot of this in more detail. To start out with, like Bob mentioned, just to give us a little bit of context, right whales, there are at least 455.

That is a minimum count out there; and that count was done in 2010. There is a little bit of a lag time in the amount of time it takes us to go through the photographs of these whales. There is a little delay there; but in 2010 there were at least 455 right whales. The minimum population count has been going up about 2.8 percent each year.

The good news is that the right whale population is growing annually. The bad news is it is growing quite slowly. Since it is growing, one might ask or be tempted to ask what is the big deal? Well, the problem with right whales is that they have a very high calf mortality rate – Doug was asking a little bit about mortality rates yesterday – and it can be as high as three a year.

That may sound quite low when you're thinking about just three all by itself; but when you consider that right whales on average the last ten or so years have been having about twenty calves a year – I think one year recently we had as few as seven calves that we knew to be born to the population – three a year can be a relatively high number.

The population, as I mentioned yesterday, also contains a smaller proportion of juveniles than one might expect in a population such as this; so there is something going on there that we're not quite sure of. I'll just leave it there. The growth rate is very slow compared to the large whales.

For instance, southern right whales in the Southern Hemisphere are growing at a rate of about 7 percent a year; so 2.8 percent is fairly low.

The right whale population is also a precariously small population; so just the smallest effects can have huge effects. The smallest number of interactions can have a huge effect on the population. It is just really magnified. Small populations can also suddenly skew themselves so there are more than one sex than the other sex and all kinds of things.

It is susceptible to all of those small population dynamics. Right whales are also frequently exposed to anthropogenic threats. Vessel collisions and incidental entanglement in commercial fishing gear are the leading causes of known mortality in right whales; and in fact in recent years entanglement in fishing gear has exceeded the number of serious injuries and mortalities from ship strikes. That's why I also mentioned yesterday that it seems that ship speed rules is beginning to work.

All of this contributes to the designation for right whales being endangered under the Endangered Species Act and also depleted under the Marine Mammal Protection Act. We talked about that 0.9 PBR level for right whales. That also does incorporate the population size; so the slowly increasing number of right whales is calculated in that; and despite that, the PBR level remains very low.

Just to briefly touch upon the distribution of right whales; this is more of a cartoon. I wanted to show more of the cartoon because I didn't want people to really study it and go, oh, see, right whales are that sort of thing. Mainly I wanted to communicate this general idea that right whales feed and mate up in the areas in the northeast; and they're up there generally time frame of spring, summer and fall.

There is new information coming in along the Mid-Atlantic and we're learning that right whales may be north of Cape Hatteras as much as year-round, not in substantial numbers, but we're finding that right whales are sort of moving down to that area. The only known calving ground for North Atlantic Right Whales is found in the South Atlantic Fishery Management Council's jurisdiction.

That is off Florida, South Carolina and Georgia; and we know now that right whales may calve as far north as Cape Fear, North Carolina. I think an important feature is something that Dr. Errigo touched upon is that the Gulf Stream is a limiting eastern boundary for the distribution or North Atlantic Right Whales; so you can basically figure anywhere west and even into the shoulder a little bit of the Gulf Stream, but anywhere west you'll find right whales. With that, I'm going to flip it back to Bob.

MR. HOFFMAN: All right, this first slide is some of the questions that we've gotten from the council recently in regards to the issue when it comes to right whales and Section 7 Consultation Issues. The first being the previous biological opinion said entanglement risk was discountable; in other words, not likely to adversely affect right whales.

Amendment 18A implemented a number of additional restrictions meant to protect right whales; basically why isn't this enough? There are fewer pots in the waters now than there were a few years ago and how can the current fishery possibly be a risk to right whales? What is the trigger, timeline and process for developing a biological opinion on Amendment 16?

These are the questions that we've gotten from council members and from the council in general; so hopefully by the time I'm done this presentation, those will at least be answered somewhat. The next slide is what Section 7 is. The main things that Section 7 requires; first, is Section 7(a)(1). This is an affirmative mandate to conserve. Federal agencies shall use their authorities to carry out programs for the conservation of endangered and threatened species.

The National Marine Fisheries Service in this particular issue has two laws that they work under for this issue; Magnuson-Stevens and the Endangered Species Act. We're expected to use our authorities under those two Acts to further conserve the species. This is where I think maybe Regulatory Amendment 16 may have some issues.

Currently from what I've seen, you currently can catch your ACL now without increasing risk to right whales, so it would be hard to justify under Section 7(a)(1) an additional increase to right whales. The other part of Section 7 that is probably the most important part is Section 7(a)(2); and that is the no federal agency can jeopardize a species with their actions. What the law says is that federal agencies must ensure their actions are not jeopardy. It does use the word "ensure"; and in this particular action you have the council and then NMFS taking the action after the council votes and then we approve the amendment. I don't know the whole process; but once that starts moving, we have to ensure that is not jeopardy.

The biologists doing the biological opinion doesn't have to prove that what you're doing is jeopardy. The proponent of the action has to ensure that it is not jeopardy. That is just a distinction that I think needs to be pointed out. It doesn't mean that I believe if we do a biological opinion it will be jeopardy or anything like that. I just wanted to make sure I pointed that out.

This slide shows the consultation history from the biological opinion until current of the snapper grouper fishery. In 2006 we did a biological opinion; and then when 18A came out, we did a re-initiation analysis. Amendment 19 we did another re-initiation analysis; and Amendment 20 we did a re-initiation analysis.

The biological opinion, NMFS determined whales, both humpback and right whales, would not be adversely affected because the lack of observer evidence suggesting that black sea bass pot gear was at fault in entanglements in the proposed provisions of the Atlantic Large Whale Take Reduction Plan.

The biological opinion, it needs to be pointed out, wasn't just looking at black sea bass pots, obviously. It looked at the whole snapper grouper fishery under the FMP, including all amendments up to 13C at the time. One of the main reasons we didn't believe that it affects the right whales and humpbacks, for that matter, were NLAA, was because of the Atlantic Large Whale Take Reduction Plan. We thought that would address any of our main concerns.

The re-initiation of formal consultation, which in this case we'll talk about that as we move along, but in general you need to re-initiate if the amount of the extent of the incidental take statement is exceeded; new information reveals effects not considered before in the current option; the action is modified in a way that causes an effect not considered in the biological opinion; or a new species or critical habitat that may be affected by the action is listed.

We did look at Atlantic sturgeon and the new listing for loggerheads, the Northwest Atlantic DPS for loggerheads, and found that for Atlantic sturgeon, the snapper grouper fishery was NLAA; and for the northwest distinct population segment of loggerhead turtles was pretty much the same analysis for the loggerhead turtles in general; and so that the analysis really didn't change just because there were listed now as a distinct population segment.

When we looked at Amendment 18, some concerns were raised. Entanglements in trap gear similar to black sea bass pots continue to occur. Since 2006 I believe there has been 17. A number of large whale entanglements have occurred in the region since 2006. The actual fishery involved cannot be determined in a large majority of entanglements.

That is important to note because if you remember in the 2006 biological opinion it did say one of our reasons for the not likely to adversely affect is that we didn't have any observed and/or – there was no observed black sea bass pot gear entangling right whales. However, now we've come to learn or probably right whale biologists knew it long before 2006, but in my shop we've come to find out that almost no gear gets ID'd as far as entanglement goes. As a matter of fact, of those 17 that I mentioned, none of them were ID'd to gear type – to fishery type.

Snapper Grouper FMP Amendment 18, continued; we did do a re-initiation analysis. We determined that we weren't going to re-initiate the 2006 opinion for a few reasons; but one of the main reasons was that the black sea bass fishing season was unlikely to overlap even temporarily with endangered large whales when they're in this area. That is pretty important to note.

In our re-initiation analysis we actually used models – NMFS had models which indicated black sea bass was likely to reach its quota and close between late August and mid-September during the 2012/2013 fishing season and mid to late August during the 2013/2014 fishing season. NMFS determined that we didn't need to re-initiate because of that.

However, we did note in that re-initiation memo that if black sea bass pot fishing effort does extend into November from 2012/2013 or if the 2012/2014 projections indicated that the fishing may occur in November and beyond, re-initiation of consultation was most likely required. Amendment 19; we also did a re-initiation memo and we found that the proposed annual prohibition on the use of black sea bass pots from November 1 through April 30th would prevent interactions between black sea bass pot gear and the ESA-listed whales during the large whale migrations and right whale calving season; meaning the gear will have no effect on these species.

That was for 19 and in 20 we found basically the same conclusion. Potential Section 7 re-initiation triggers for this particular action; new information reveals effects not considered – so new information on right whale distribution that Barb will go over a little bit later; and some of you who heard her talk in the PR Committee probably heard some of that already – and new

information on entanglements, especially the information that we really can't identify the gear type.

The other re-initiation trigger that may be met is the action is modified in a way that causes an effect not considered in the biological opinion. Obviously, in the biological opinion we didn't think there would be entanglements of right whales or humpbacks, for that matter, in black sea bass pot gear.

Now that we have the new information on right whale locations and entanglement information – I'm not sitting here saying that – we'd have to do the analysis; so I don't if there will be entanglements or not, but we do know that we have just increased the chance of that happening; and because of the increased chance, we can't say not likely to adversely effect. We would probably have to say may effect or likely to adversely effect and then do an analysis on it and determine what take level might come from that.

I just wanted to mention, too, that re-initiation of consultation does not mean – and I think some people think that if we re-initiate consultation that it is like somehow automatically a jeopardy finding; and that is not the case. It may not even be the case that there is an adverse effect. We have to do the analysis and we can't prejudge that.

I just wanted to make sure you know re-initiation of the consultation for the fishery – and it would be the whole fishery that we re-initiate the consultation on, the whole snapper grouper fishery. We go through the turtles and everything else on the whole fishery and not just black sea bass pot and right whales. It doesn't necessarily mean jeopardy. I've heard people think that if we do a biological opinion, it means it is jeopardy; and that is not necessarily the case. It could be.

Right whales are the easiest animal to find jeopardy on by far, but it does not necessarily mean that it would be jeopardy. Okay, the timing of completing a biological opinion, the regulations require us to have it done in like 135 days; 90 days to conclude the consultation and 40 days to provide a biological opinion.

We do have – and you need to know this – a 500-consultation backlog in our shop; so there is a significant amount of manpower being used to take care of that. We will start the biological opinion when we get the proposed action fully fleshed out and when we found out if it is approved through NMFS.

Once we find that out, we'll start working on it; and we believe we can have a draft opinion – because I believe the council wants to see a draft – believe we can have a draft opinion by June; so I think you need to know that. Now, this is the part that I think most people are concerned about, the whole jeopardy analysis of the biological opinion.

The definition of jeopardy is to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both survival and recovery of listed species in the wild by reducing reproduction, numbers or distribution of that species. In other words, it is a two-pronged analysis. We have to look at survival and recovery.

When we look at survival, we consider if there would be a reduction in the reproduction numbers and distribution of the species. Then we evaluate whether any such reduction would cause an appreciable reduction in the likelihood of survival and recovery. In this case survival means the species' persistence beyond the conditions leading to its endangerment with sufficient resilience to allow to recover from endangerment.

Recovery means improvement in the status of a listed species to the point at which listing is no longer appropriate under the criteria set out in Section 4(a)(1) of the Act; and 4(a)(1) is the listing basically how you go about getting the species on the list. We also evaluate the effects of the proposed action when we look at jeopardy.

It is a combination of the effects of the proposed action and then you add in the status of the species. The environment baseline; the environmental baseline is important. It is all things that could affect the species are happening – all federal actions that could affect the species. Other fisheries that may affect the species, ship strikes; that will all be considered in the environmental baseline.

Then the cumulative effects, which that is any state or local entity that is doing something will affect the species, like state fisheries that may have pot gear, that kind of thing; that all gets added together to make the jeopardy determination. Now Barb is going to into the new information that we believe would require us to start working on a new biological opinion if Regulation Amendment 16 passes.

MS. BECKWITH: Just to make sure I understood you right, for the formal consultation you would only analyze the option that was approved by –

MR. HOFFMAN: No, actually what we would analyze is the current fishery with all the amendments under the FMP; and then the newest amendment would be part of that. Whatever you determine the new amendment will be is what would be analyzed. We won't analyze – it is not NEPA; we don't analyze a range of options. You're going to have to decide on an option, tell us what it is and how it is going to work, and that is what we will analyze.

DR. CRABTREE: To that point, I think the confusion, Bob, is that you said we wouldn't start the biological opinion until we had to determine that NMFS was going to approve the amendment. I think what he means is we would want to get to the DEIS stage where we had a fully developed NEPA document with a complete analysis; and then we could start the biological opinion. We would try to do that before the council took final action, which means we would have to finalize this document pretty quickly to have an opinion by June.

Now, I think in my discussions with Bob he has indicated you would want to see a draft biological opinion; so if you wanted to see a draft in June, that means we wouldn't wind this up until into the fall sometime to give you a chance to comment on it. Remember as well if we release the draft biological opinion to the council, it is going to be released to everyone; and we're going to probably get hundreds if not thousands of comments on it, I suspect, and we'd have to deal with all those and figure out how to respond to them.

MR. HOFFMAN: I apologize for the confusion. It is my misunderstanding of the council process.

MS. ZOODSMA: To go on into a little discussion on the new information that we have since that 2006 biological opinion, we've learned that North Atlantic right whales are distributed more widely in a temporal sense as well as a spatial sense. Not only have we discovered that about the right whales themselves, but we've also learned that about their habitat as well.

For instance, when the biological opinion was first issued in 2006, we were working with critical habitat in that diagram on the right and number two there; but additional analyses and additional modeling have demonstrated that clearly the right whale habitat as well as their distribution extends far beyond that; and so thus is the current effort underway right now to revise critical habitat.

MR. HAYMANS: Was that through aerial surveys, satellite tracking; how was that new information generated since '06?

MS. ZOODSMA: Yes; there was aerial survey data, a lot more aerial survey data collected, Doug, but as well as these modeling studies have got underway. The nice thing about these models is that they extend our knowledge about right whales and their distribution beyond just those areas where we've surveyed. The right whale models in the southeast are very strong.

They've been validated and there is very close alignment between predicted and observed sightings; so we're very, very confident in their predictive and modeling capabilities. From that sense, we can use – and here are two illustrations of models that have been generated and another one that was just published by Gowan and Ortega-Ortiz in 2014 also contributes a great deal of information to our knowledge about right whale distribution in the southeast.

Just to kind of go back to touch upon something that Dr. Errigo pointed out or suggested that most right whales occur in 20 meters of water or less; I guess there can be some discussion about how "most" is interpreted. For instance, if you look at the Gowan and Ortega-Ortiz paper, right whales were more likely to be sighted close to shore, particularly within 25 kilometers of the coast, and in intermediate depths between 10 and 25 meters.

Than as well we looked at the sightings-per-unit of effort analysis using more recent data and we found that off North Carolina and South Carolina. About 80 percent of the sightings were within the 20 meter bathymetry; but 20 percent, which actually is quite a bit for right whales and particular when you consider the relatively little amount of search effort off North Carolina, 20 percent of right whale sightings were offshore and deeper than 20 meters.

I think we need to be very careful with kind of talking about where right whales are distributed and look at really what has been published. Another thing that we're learning about the right whales – it not only enhances our understanding of right whales down off the southeast, meaning the core calving area of Georgia and Florida and South Carolina, but it also, as you'll see, allows us to extrapolate information to the Mid-Atlantic and North Carolina.

Right whales migrate into the southeast U.S. at various times during the calving season. Now, this is really new; and I touched upon this a year and a half ago when I talked to you; but what we're learning is that early arriving adults, meaning pregnant females, and their calves have long durations in the calving area.

But most animals, including non-reproducing females, juveniles and adult males, tend to spend as little as one to three weeks off the core calving area of South Carolina to Florida. That is very, very different; and I'm still personally trying to wrap my head around why in the world that would happen, but that's another day.

But the point is that there is not this mass stampede as we used to think of in the fall right whales are migrating southward, they stay down in the south until the spring and then trample back up north; that is just not happening. In fact, we're also learning that new animals are detected and arriving in the core calving area as late as March; and that one I haven't even begun to wrap my head around.

What that is all about, I don't know, but still it is showing us that there is very different things going on in the southeast than what we had originally thought, especially back in 2006 when that biological opinion was developed. What does that say to us about North Carolina, then, is that we know now that all during the right whale calving season, during the winter, right whales, it is basically a steady stream of right whales moving up and down the coast.

This is again very different from the information that was at hand back in 2006. I want to also just touch upon this. This is not new information; rather this is information that I just want to emphasize is that there are a lot of limitations to sighting right whales. The lack of sightings in an area should not necessarily be confused with that meaning or interpreting that as meaning whales are not there.

Off the Mid-Atlantic here, for those of you that work in this area, you know that conditions here are very different than further south. There is availability bias where whales are submerged and they're quiet or they're traveling; and they're the most difficult animals to see. Well, obviously, because they're not available to be seen. Then there is also incomplete coverage either because we're not surveying in the area or because there is poor weather; and it is very difficult to spot right whales. And then there is perception bias, but that is kind of all up and down the coast. I think it is just really important to keep in mind that there are limitations to the sighting information.

If we look in certain areas and see there are fewer right whale sightings in that area, it doesn't necessarily mean that whales are not there. I think that point is really borne out by what we're learning about the fact that right whales are constantly moving between north and south habitats. I touched upon this yesterday a little bit; Johnson et al published a paper in 2005 entitled "Fishing Gear Involved in Entanglement of Right and Humpback Whales."

Michelle, I think this is sort of something you were asking me about; and I am now prepared to provide an answer. They looked at 31 right whale and 30 humpback entanglement cases and

North Atlantic right whale cases dated back to 1993 through 2002. The analysis focused on gear that was recovered and examined by gear specialists or other reliable sources such as fishermen.

The gear type was determined in only 45 percent of the right whale cases. The majority of those animals, they didn't know what type of gear it was. Of that 45 percent, 71 percent of the gear was from pot fisheries. And what you were asking about how many were lobster, eight of those were lobster pots and two were other types. I think the point here is that a lot of the gear just isn't identified.

To this point, there is another effort by Knowlton et al from 2012 looking at North Atlantic right whale scouring; and they reviewed photographs from 1980 to 2009 and found that 83 percent of all right whales have been entangled at least once. This is up from 72 percent from when they last looked at all this data and published it in 2003.

These findings indicate that the documented entanglements are only a fraction of the animals that actually become entangled or are seen. As Bob mentioned previously, from 2007 to 2011, 17 North Atlantic right whales were entangled and documented in fishing gear and zero of those were identified to the fishery or gear type.

Again, it just really points to the fact that we know so little bit about the gear that is on right whales other then we do have some indication that trap pot fisheries are some of the gear that are entangling right whales. Sources of entanglement and information – and, Doug, this slide is going to address your question a little bit yesterday about the statement that you correctly identified as being one that I do not like. We have additional information.

We know that large whale entanglements are rarely observed or reported as bycatch in logbooks; and there is absolutely no observer coverage in the trap pot fisheries. We now know there are more appropriate sources of information on entanglements. We also now know that only a small percentage of gear is identified.

However, we do know that trap pot gear entangles right and other large whales; and therefore our position is that it is no longer valid to state the best available information indicates there are no observed entanglements or other interactions with black sea bass pot gear and North Atlantic right whales; because, quite frankly, we can't rule out that black sea bass trap/pot gear is entangling right whales either. Bob mentioned this briefly; and that with new information we have since the 2006 biological opinion was produced is that unfortunately the Large Whale Take Reduction Plan just hasn't produced the results that we were hoping for; and so we've constantly been revising and amending that plan in an effort to achieve the goals that are before us. But, anyways, nevertheless, that's another one of those new pieces of information.

MR. HOFFMAN: The ESA-related take-home message is new information triggers a re-initiation of Section 7 Consultation. We have all this new information. If Amendment 16 is passed, we will re-initiate consultation on the entire fishery, the whole snapper grouper fishery. We will look at everything under the FMP in the EEZ. Any increase in pot fishing from November through April is considered a "may-affect situation", at least currently.

Obviously, when we start doing the biological opinion, we're going to look at that in depth and figure out if there is take, the quantity of take; and then after that we make our jeopardy analysis based on that. I've heard a lot of questions about, well, we have 18A and we compare it to what we used to have, and it is better than what we used to have.

Well, the biological opinion just looks at what the fishery is now, including 18A and then with new 16 on top of. I just want to make that clear. I've heard a lot of people discussing the issues with 18A and the reduction in gear and that kind of stuff that came along with 18A. That is part of the opinion; so whatever the fishery is under the FMP with 16, that is what we'll be looking at. Questions?

MR. PHILLIPS: You talked about not being able to identify gear with a particular fishery; but can you rule out a particular fishery even if you can't identify where the gear came from; i.e., a black sea bass pot rope is probably going to be a number ten crab rope or something. If you've got gear that may be much larger than that, you may not know where it came from, but can you rule out where it didn't come from?

MS. ZOODSMA: No, unfortunately, we can't. If we could, we would. I will ask you to look at this slide right here. If I recall this correctly, this was 3/8ths inch floating polypro line. If there are any black sea bass fishermen in the room, I'd ask them could you rule this out as black sea bass gear.

MR. COX: You've got two fishermen in the room. I'm a black sea bass pot fisherman for 12 years; and Tom Burgess is here as well. We were talking about our ropes and we use a lot less than that. We use 11/30nds, so it is smaller.

MS. ZOODSMA: The point is, though, a lot of times this kind of thing is what we're dealing with right here, if you look at this. This animal, we had five feet of line that was cut off it and also another 30-foot section; and all that our gear guys could tell us was that it had been pulled through a pot hauler because of the way the fibers were looking on the line. A lot of times we can't; not only can we not tell what the gear is, but we can't rule things out.

MR. BOWEN: You may find this hard to believe, but I'm confused. Can you just go over about the entanglements? Yesterday we had no evidence of entanglements and now I'm hearing that we have entanglements. That is question number one. A statement after that would be after hearing both sides of the fence, if you will, it just seems like we can come to some – it seems like we should to be able to come to some agreement on gear type that would not hurt or damage the whale population. Does not seem practical? I don't know; I'm not a sea bass pot fisherman, but it just seems like we could come to some agreement there.

MR. HOFFMAN: The first question where you said, well, we didn't have entanglements, well, we do; basically if you're referring to the 2006 biological opinion, it does indeed say that we had no identified black sea bass pot interactions with right whales. That is not the exact wording but basically it said we didn't have any evidence of black sea bass pots entangling right whales.

It says that in the 2006 biological opinion. I can tell you now, with the information we have now, we would probably never say that. We wouldn't say that there was, but we wouldn't say that there wasn't. We wouldn't use that as one of our reasons for not likely to adversely affect for that.

MS. ZOODSMA: If I could just add to that, too, if you go back and you look at the biological opinion and the sources of information that they cited for that particular statement, you'll see that what they're citing are observer reports as well as logbook entries. What we know now is that you're not going to find any entanglements in observer reports because the trap/pot fisheries are not observed.

To connect those dots and then say, "Oh, you know, I checked this observer report and so there are no known entanglements in black sea bass gear," that is like me going to – and, again, I'm not trying to be flippant. I'm going to give you an extreme example to try and make this point. It is like me going to Publix and saying I don't see any entangled right whales around the shelf; therefore, right whales don't become entangled. It is just going to the completely wrong source for information. Does that make sense?

MR. BOWEN: No, ma'am, but again I'm just not following you. One point I'd like to make, too, is I look at this on Page – I don't know, wherever you have the map with the routes of the whales. There seems to be a lot more area covered with their travel north of us – us being in the South Atlantic – than it does the South Atlantic. Are there amendments in place in that jurisdiction for the lobster pots or the sea bass pots above our jurisdiction?

MS. ZOODSMA: I can't speak for what other fishery councils are doing. Were you here yesterday?

MR. BOWEN: In body.

MS. ZOODSMAN: Okay, so the take reduction plan amendments include a minimum number of traps per trawl in the northeast. It increases the size and frequency of gear marking. There is a closed area in the Massachusetts restricted area. The lobster fishery is feeling it to the effects of up to $3.6 million; so there is indeed management measures up in the northeast.

MR. BOWEN: Can we get to my next statement about is there some kind of meet-in-the-middle thing that we could come up with that might work for both sides of the fence on this issue?

MR. HOFFMAN: There is always something. You know, with the shrimp fishery back in the nineties when we declared jeopardy on them, we came up with TEDs. There is always something that can be done. There is always something that we can work on and work with under the ESA for that.

DR. CRABTREE: To that, Zack, we have had ESA issues in other fisheries. The most recent one that comes to my mind is with the grouper longline fishery in the Gulf. They were catching too many turtles; and we worked pretty closely with the council to come up with ways to mitigate that. Yes, we can work on finding some middle ground. It is tougher with right whales,

though, than it is with turtles because you've got a lot of turtles out there and you've got less than 500 right whales, but we can certainly try to do that.

One thing you've got to remember, we know we have entanglements in rope that could be pot gear rope, but we can't say what fishery did it come from. Well, one of the funny things about ESA is in the congressional record, when the statute was passed, somewhere in there Congress gave us instructions that we're to give the benefit of the doubt to the listed species.

The courts have interpreted that that we have to make conservative assumptions. If we think something might be entangled but we're not sure, the conservative assumption is going to be that it probably would be entangled. That is just the way the ESA is. Uncertainty means you make careful assumptions. The other thing; you may recall sometime over the last year or two we had an extensive discussion about marking lines in the spiny lobster fishery.

We went through a lot of concerns with the industry down there and ultimately we decided not to mark the lines; but you can see with this why marking lines in these fisheries would be a really good thing to do because then you would know whether or not your fishery has had interactions or not. But because it is difficult to find a way to make lines that isn't costly and that lasts over time, we just haven't been able to get to that. But it is important and it can work in favor of the fishery sometimes if you can mark their lines so you can identify them.

MR. BOWEN: So basically the gist of it is we are bound by law to err on the side of caution; that is the gist of it?

MR. HOFFMAN: Yes, sir, it is.

DR. CRABTREE: I think that is correct; that when we write the biological opinion, we have to make conservative assumptions.

MR. HAYMANS: Mr. Hoffman, I find it slightly disconcerting to think that we've got to start over with actions after Regulatory Amendment 19 when the council built a pretty tight record and why we did what we did in 19, which was to increase the ACL. We specifically said – well, the paragraph that is pulled out of the background for 16 says that – I don't want to read the whole thing; but basically it said in order to get the ACL in place, we were going to need to close those months; realizing that we're going to come forward asking for a biological opinion when we go to look at this.

So now to be punished for having taken that action seems just – it is disconcerting. It would seem like you would go back to where we were pre-19 and look at the actions taken through this recent time series and create the biological opinion on those actions and starting at zero with an increase. We've decreased since that time and it just doesn't add up to common sense, in my opinion.

DR. CRABTREE: So the status quo here is the closure; and that is what it has to be; and that is not just in the biological opinion. That is in your NEPA document. Your status quo is it is closed and there are no traps in the water during that closed season; and that has to be way it is

analyzed. Under scenario you have here, if you open up during that period, you're increasing risk to right whales by some amount. I don't think there is any way to around that. Now, it may be that some of those alternatives would increase the risk by a negligible amount; and they might be okay.

The status quo has to be the seasonal closure that is in place because that is what the current regulations are. If that wasn't clear when we went through Amendment 19, I apologize, I guess that's on me, but we were in a rush. Remember, we had an emergency internet council meeting and we were trying to get the quotas up; and we were trying to raise – at that time this fishery was closing very quickly.

These sea bass guys are doing a lot better now than they were before Amendment 19. Their quota has gone up. I think it has doubled just about. It is disconcerting. Doug, and I understand the frustration with things going on north of us and all of that, but that doesn't change the fact that we have to put together a defensible document that we can defend.

This is going to get a great deal scrutiny and we've got to go through all the ESA process with this; and we've got to make sure that we're good with the Marine Mammal Protection Act. They are very, very tough statutes, much more so than the Magnuson Act. That is just the reality that we've got to deal with.

MR. HAYMANS: And I do understand that. Although I may be unique in many ways, I'm not unique in this council and the misunderstanding or lack of understanding of what this new opinion was going to start at. I think many of my colleagues who were on the council when we did this two years ago or whatever it was thought we were going to be starting back pre-19.

My final comment really just sort of comes back to PBR versus this birthrate issue and looking at the 2014 lobster biological opinion; it really relied very heavily on this 2.8 percent birthrate and how that was very optimistic when compared to the 2 percent growth rate that was going to be required to see recovery. I see in the lobster plan the birthrate and it is all well and good; and I see in this potential black sea bass that it is really looking at 0.9 PBR and it is not so good, particularly the next to the last slide that Barb showed. I don't know; I just threw that out as well.

DR. DUVAL: I think what you're hearing is just again this general sort of lack of parity. We a single population throughout its range. That was actually a question I was going to ask was what is the existing biological opinion for the lobster fishery. Clearly, you look at the 2015 list of fisheries, as I mentioned yesterday, you know there are 11,000 vessels in there.

There is 11,000 permits according to this 2010 document from the state of Massachusetts alone, you've got 5,000 permits in the state of Maine; and so it is really difficult for this council to understand how, when I look at the list of fisheries, when I look at the Atlantic mixed-trap/pot fishery that says that there is 3,600 potential vessels or participants and we know that 32 of those are this black sea bass pot fishery where the risk is.

Is very difficult for this council to understand that because there is just a lack of parity between how the fisheries are being treated when we see a relatively small closed area up in the Great South Channel and we're stuck with an EEZ-wide closure right now. That was not something that we asked for. We directed staff to go back and develop an amendment that would allow us to respond to the update to the black sea bass pot amendment; and there were no choices provided for us to increase that ACL that did not also have an EEZ-wide six-month closure. It appears to us that there is not much effort being made to come to some kind of compromise. I will just leave it at that. Yes, please go ahead and respond; and then I have Chester who would like to ask a question.

MR. HOFFMAN: The reason when 19 came and the ACL, there was no option to open the fishery is because we would have to redo the biological opinion; and that would have taken too long to do. That is the difference there; so it would have taken too long to do the biological opinion, and that is why you maintained the closure.

As far as things that go on in the northeast; the only thing I can say to that is everything they are doing is decreasing risk; and from a status quo situation now, you'd be increasing risk; and that is going to be a hard thing to deal with. All I'm really saying is we have to redo the biological opinion because of increased risk.

I'm not saying that it is jeopardy and I'm not saying that the biological opinion may find that it is not jeopardy. I don't know yet. We haven't gone in depth and we don't know how many traps and how many vertical lines there is going to be. All that stuff is going to be taken into consideration. No one is saying – all I'm saying is that we have to re-initiate the consultation and we have to do a new biological opinion. I'm not saying how that is going to turn out and what is going to happen with that.

DR. CRABTREE: My understanding is that the northeast lobster biological opinion is currently under re-initiation. Also, in the take reduction team rule that came out in June, the estimated compliance cost for that in the northeast was 1.9 to 4.5 million dollars. It is not like there aren't substantial things happening up there.

MR. BREWER: I'm almost scared to ask this question; but with your new information with regard to whale distribution and your new information on entanglements, is that going to trigger a re-initiation regardless of what is done with 16?

MR. HOFFMAN: Probably not because if maintain the closure, the effects on right whales would probably still be discountable. However, the only thing I would say is that the opinion – there have been a lot of things that have happened since the opinion has come out. It is relatively old. It didn't consider the new loggerhead listing nor the Atlantic sturgeon listing nor the new coral listing, which just happened.

The turtles and the loggerheads and the Atlantic sturgeon, we already did informal consultations on and said that the snapper fishery wouldn't affect those. But doing a new opinion, though, without 16, I doubt we would do one at the moment because of manpower issues; but if we did, it wouldn't affect any of the timelines for anything else you were doing.

We would do it as we were going along, as things were going, because there would be no issue pushing – like if you pass 16, that would be pushing us to get it done in a certain time frame; but if we just decide to re-initiate consultation because of all the new listings and there are issues with new data being available and that kind of stuff, that would be a different ballgame. Business would go on as usual while we were writing a new biological opinion.

MS. BECKWITH: So if I'm hearing right, if we would have taken more time to develop 19 and waited for the biological opinion rather than raising the ACL, then the analysis would have shown us actually decreasing risk through that process; so we would have looked like we should receive a gold star at that point rather than having let 18A go through and 19 and now starting from the status quo that is going to look like everything is increasing. If that is the case, we were not informed at that time that was going to be the process forward; and I'm sure that the rest of council feels a little bit shafted by not having that bit of information.

MR. HOFFMAN: Let's take 18A, for example. When we did the re-initiation analysis, we said in that re-initiation analysis that if fishing would go past November, we would require a re-initiated biological opinion in that memo. I have it in a folder over there if you want it. In 19 I do believe we said the same thing, it wasn't going to – as a matter of fact, 19 had maintained the closure in place so we were like because the closure is in place, it is not a problem.

We have said that fishing outside of November would be a problem and would require a re-initiation even on the other two amendments. It was not like we didn't say that. To answer your first question, if we would have analyzed when you went to 19, if you were going to have fishing past November, we would analyze whatever that was that you were going to do.

If it was less than what you used to do, so be it; if it is less than 2006 – remember, the 2006 biological opinion, we now know with new information was not a correct analysis of the situation with right whales. Even at a lower level, we would assume that the risk would have been not – we wouldn't have come back to not likely to adversely affect. Now, we could have done the biological opinion, it might not have been jeopardy and all that stuff; that's true; but 16 might not be jeopardy either. We don't know until we do the analysis.

DR. CRABTREE: So the status quo at that time was no traps in the water; because at the quota levels we had prior to raising the quotas, the fishery was closing. Status quo has been no traps in the water is going probably back to 2007 or so. I don't remember when the closure dates were and maybe it is not that far back, but there haven't been traps out there in November for a number of years.

What could have happened in that time is you would have had to have done a biological opinion, which would have taken considerably more time; and just as the position you're in now, it might have concluded, no, you can't put traps out in the water; and we might not have been able to approve the TAC increase. The status quo, since this fishery started closing as a result of the rebuilding plan, has been no traps in the water. We can, I'm sure, get staff to go back and look at what was the last year that we actually had fishing going out there, but it was before when we put this closure in place.

DR. DUVAL: So the last time we had fishing in the winter was we opened for a week in December of 2010; and prior to that it was in the late fall and winter of 2009. So December 2010, for that week, the sea bass fishery was open. Monica.

MS. SMIT-BRUNELLO: I just wanted to speak to Chester's question. Certainly, new information is one of the triggers for re-initiation of consultation. We certainly heard a lot about new information regarding right whales, so I'm not sure. I think to be fair it is very possible that we may have to re-initiate consultation; I'm not sure. I agree with what Bob said in terms of the timing. If the re-initiation was triggered and it wasn't related to some fishery management plan amendment, then this council wouldn't necessarily be affected that much by the biological opinion as it was being developed. Anyway, I think in fairness the answer is maybe, to your question.

MR. BELL: I was just going to say I share the frustration; and I still think we did the right thing with 18A. Maybe it didn't work out like we thought; but where we are right now is in moving forward any action in here other than Action 1, which is status quo now, is going to increase risk.

What we need to do is figure out the best possible way to move forward in terms of an alternative

and to try to decrease that risk to as small as we can get it and just go with it. I don't see us particularly as with 0.9 PBR; this kind of trumps everything in terms of the rigidity of the concern of risk. I get that, but I think we're just going to have to pick the least risky option and move forward. I do share everybody's frustration; trust me.

DR. DUVAL: Are there anymore questions for Barb or Bob on this presentation? I think for me just a couple more points. One thing I had mentioned in March was about something like this really should go through the take reduction team process. That's what that process was set up for. I know Barb mentioned yesterday that this fishery fell through the cracks with regard to consideration of closures simply because the fishery was closed due to the ACLs having been met prior to the existing line rule that went into effect.

Given that the last time the fishery operated in the winter was 2009 and 2010, the Notice of Intent to publish that rule came out in 2011. I still say that could have been included and we wouldn't be in this situation. That really diminishes the integrity of both the council process and the take reduction team process when we're stuck in the middle of something like that. I just wanted to put that forward.

Also, Roy stated that the biological opinion has been – consultation has been re-initiated on that for the lobster trap fishery. I would just encourage the Protected Resources Division to have some kind of consistency there; because, clearly, just based on the number of lines in the water, by the numbers there is far more risk up there.

You need a healthy population of adults in order to produce healthy calves; and from the literature that I've read, adults are under stress, and I can't imagine that they wouldn't be under stress when they're having to run the gauntlet through all the lines up there. I appreciate you

guys coming here and giving us all this information. I think it is really helpful. I'm sorry that you have to hear the frustration around the table, but I hope this improves things moving forward. Jack, you had a comment.

MR. COX: Yes; I would just like to say I'll tell you this is just a hard thing to leave with today, because I just feel like we're just not being fair to our fishermen all the way around the table here. They've been very patient. There is no evidence here that these fishermen have ever had an interaction with a whale; nor do they want one; and for them to be as patient and waiting for some kind of outcome from this meeting, to go back and say, well, things are worse than they were before the meeting.

This council has taken all these precautionary measures, which is a lot, to lessen the interaction of the whales; you know, it just doesn't set right. It is not right. I don't know what to offer up. I had a few things here that came to my mind and I had talked to Tom Burgess about it; and we've got extensive years out fishing for black sea bass. It is such a clean fishery that it is just hard to see us not able to do it. Is there some kind of breaking strength with the rope or the weak link that would make a difference, some things that we can do, some kind of compromise that we can get to?

DR. DUVAL: Jack, I might suggest that once we get into discussion of the actual regulatory amendment; that is where it might better to consider modifications like that when we talk about the alternatives. Barb, are you here tomorrow as well?

MS. ZOODSMA: I can be; I wasn't planning on it.

DR. DUVAL: I just have a feeling some of those questions might come up. What I would like to do is let Dr. Farmer give his presentation, which looks at an analysis of the different alternatives that are in the amendment right now, if that is okay with you. I don't know if Barb is prepared to provide any input at this point on other alternatives with regard to gear modifications. I think those are completely valid, but I'm not sure that's something that we're going to be able to fully address right now. That would just be my only concern; but I stand to be swayed. Mark.

MR. BROWN: I just wanted to point out that I just thought it was interesting when you were discussing the timing on the temporal extent; that most of the animals observed were in the area for as little as one to three weeks. That just seems like a really short period of time; and apparently the animals are just coming there and having their calves and going straight back, so there is not a lot of diving or feeding or going up and down or spending long periods of time in an area like they would in the northeast. It just seems like they're just going straight there and coming straight back.

DR. DUVAL: Mel, did you have one more thing?

MR. BELL: It is related to that. Barb mentioned earlier about kind of using that 20-meter line and I think you said that 20 percent of the sightings or something were seaward of that versus

inboard. You didn't mention the timing of that; are those predominantly the ones that are out farther?

Is that predominantly the earlier months in the year as opposed to the fall where we assume that the 80 percent would be more coming down closer to shore? In other words, are you kind of clear on where that is timing-wise? You didn't mention the timing of that. It was sort of an 80/20 percent distribution.

MS. ZOODSMA: I would like to go back to the previous comment first; and then you're probably going to have to remind me of what your question just was. I've got to go with what I can remember right now. I didn't say that the females with their calves were staying down for just a few weeks. In fact, I was saying the opposite of that.

I was saying the pregnant females, when they come down, they stay down the longest. They're the first to come down and the last to leave from the calving area; so there is that. Mel, you were asking about the timing, right, of is there any difference in the distance from shore? Now, that's where you get into the power of the data that is in that area.

We just don't have the power to do that type of an analysis. In fact, that is why you'll see with Dr. Farmer's analysis why – we think this is still the case; we could get it down to basically a month and use the same data all the way through. Did that make any sense; absolutely not, did it? We didn't break it down like we had November data and then December data. We used the same data for each month's analysis because we couldn't break it down enough there.

MR. BELL: So the reason I'm asking is the assumption I would make if I were a whale and I were moving south, I'd be hugging the shoreline, working the currents. If I were a whale coming back north with a calf, I'd be farther offshore, working towards the Gulf Stream. That is what ship traffic does.

When I used to drive ships up and down the coast, we'd hug the shore going south; and we'd move out coming north. Whales are smart and they've figured this out. I'm just wondering if that pattern actually exists, that would kind of tell you how to move your – you know, where it would be less risk associated with gears at certain times. But if you're not comfortable in that determination, but it would just be logical to me.

MS. GOODSMA: I know in this modeling work that these researchers have done; that they didn't find a great deal of difference between mom/calf pairs and other whales in their distribution, whether or not there was from beginning to end of year. I think primarily what is driving them and what these authors have found is just water temperature, whether the water temperature is their preferred water temperature and depth.

DR. DUVAL: We're going to get into some of that. Chris and then one more comment, Jack. I don't know if you want to maybe outline some of the gear modifications that you would like Barb to take back and discuss. Perhaps that might be a good way to do that.

MR. COX: Yes; I would like to get with Tom on that first. Do you want me to jump in front of Chris? Can I go?

DR. DUVAL: By all means.

MR. COX: Okay, I have a quick question. Why are we allowing seismic testing in the critical habitat during this right whale travel?

MS. GOODSMA: That is a good question; but they're not allowing seismic testing in critical habitat; but that is a topic I do need to be working on. In fact, I've been talking to my colleagues about that – could I say something about the take reduction team – and it is also outside of the season as well. Could I say something about the take reduction team?

The South Atlantic Fishery Management Council, as Roy mentioned, does have a member on the take reduction team; and presently it is David Cupka. He hasn't notified the take reduction team coordinator that he has resigned from the South Atlantic Fishery Management Council. The minute that notification is made, another representative will be appointed.

Also, we do need to learn more about the gear that is coming off these whales; and I have been a very strong advocate of gear marking. When I've talked people about that on the take reduction team, the only support that I've received from fishermen is the support from the blue crab fishermen that also want to gear mark. I haven't received support from anybody else. In fact, the blue crab fishermen were sort of beat up on by other fishermen at the meeting for advocating gear marking. I just want to say that if this is important to you all, I would suggest that you all get behind the idea of what can we do more that would help us identify this gear. I think that would really behoove us all.

MR. CONKLIN: This question is probably more directed towards Bob. I just had a question about how the biological opinion on the Section 7 Consultation triggered – you commented that it would go over the entire Snapper Grouper FMP. Is that implying that if we decide to move forward with this amendment and make a decision that we're basically going to get audited and part of the other vertical fisheries could be in danger of going out of business in that time frame as well?

MR. HOFFMAN: It all depends on what time of year those vertical lines are and where they're at. I didn't work on this biological opinion so I don't really know a lot about the snapper grouper fishery in general; but it would be of the entire fishery and the threats that fishery poses on endangered species. That includes turtles. Turtles get entangled in pot gear, too.

Leatherbacks are known to get entangled in it a lot; but like Roy said, there are a lot of turtles. Entangling a leatherback or two is not as much of a big deal as entangling a right whale. It would be on the whole entire fishery, though, as prosecuted by the council under the FMP and all the amendments. If there are vertical lines in that fishery that could affect right whales or sea turtles, we would look at that. I guess that answers your question, I hope.

DR. DUVAL: I would like to wrap this up on this presentation. Thank you, Barb and Bob for coming here. You've answered some questions although certainly not eased the frustration, I don't think. What I'd like to do is have Dr. Farmer come up here and give his presentation and we will take questions on that.

I know it is 5:00 o'clock; we're scheduled to go until 5:30. I know that is going to take us overtime, but my suggestion, Mr. Chairman, is that we would finish with Nick's presentation and start again in the morning going through the decision document for the regulatory amendment starting again at 8:30 if that suits the committee. I think we've had a lot to think about and we'll have more to think about once Nick gives his presentation.

MR. HARTIG: I think that is a good way to move forward; thank you.

MR. BOWEN: Madam Chair, where is his presentation?

DR. DUVAL: That is actually Attachment 4D; and there is a revised version; so it is Attachment 4D_SG_Revised SERO Reg 16 Analysis Presentation 11/25/2014. Does everybody have it; can I just get some nods around the table?

MR, FARMER: I'm just going to run this off the PDF. I think that it will work still. There may be one or two animations missing, but I don't think anyone is going be too sad about missing those. Just real quick; I wanted to acknowledge all the other people who contributed on this. This was definitely a NOAA-wide effort: Barb Zoodsma; Jess Powell, Bob Hoffman, Laura Engleby, Lance Garrison and Tim Gowan.

I believe Lance Garrison from the Southeast Fisheries Science Center and Tim Gowan from Florida Fish and Wildlife Conservation Commission are available for questions if we want to get into anything that is too technical with regards to right whale distribution modeling that I can't answer myself. The objectives for this analysis were to simulate the potential landings of black sea bass trap endorsement holders under the proposed alternatives of Regulatory Amendment 16.

We factored in landings from other gears in order to predict when the ACL would be met; and we considered the seasonal distribution of black sea bass trap gear and North Atlantic right whales to compare the relative risk of right whale entanglements under each proposed alternative. One thing that I want to stress from the beginning is that because we don't know what the black sea bass pot gear entanglement rate is for right whales, we used simply the overlap of the black sea bass pot gear fishery and the distribution of right whales for proxy relative risk.

We assume that risk is greater than zero but we cannot quantify it at this time. This has undergone a comprehensive scientific review by the Southeast Fisheries Science Center, internal review at SERO, and has been presented and reviewed by the SSC. The key points from the SSC review were that they asked to express risk at unit and not a percentage so as not to imply that a hundred percent risk means that a hundred percent of right whales while become entangled.

Those have been converted to relative risk units. We also were asked to clarify that risk is approximated by the overlap between right whales and black sea bass effort, which I just mentioned. We were asked to provide additional detail on the history of black sea bass effort; and I've got a slide addressing that.

We were asked to provide additional detail on the history of North Atlantic right whale entanglements and population status, which I think Barb and Bob have done an excellent job doing that. We were asked to provide additional detail on the North Atlantic right whale distribution model, and I think that you guys were all given or at least have access to a PDF of the Gowan and Ortega-Ortiz 2014 paper in your briefing book.

Also within the document that accompanies this presentation, there are several links to that paper, which is available for free on Plus One online, which is a high-end peer-reviewed journal. We were asked to explore options for a monthly model off of North Carolina. I thought that was actually going to take a lot longer and not potentially be possible, but we were able to actually address that. I will present some information on that in this.

We were also asked by the SSC to evaluate within-scenario uncertainty. There were a few methods that were proposed. There is a technical subcommittee that is supposed to get together. I've reached out to them, and we're going to hopefully make some progress on that. However, I've gone into that in some detail and made a bit of progress on that on my own; and I'd be eager to discuss that with the SSC at a later date. We will present some of that here as well.

In terms of the history of the black sea bass fishery, this is landings on the Y-axis in pounds gutted weight; and those are fishing years starting in June and proceeding through May on the X-axis. Those different colors in there as stacked bar plots are the different months of the fishing year. Some things you'll notice is this has been a pretty dynamic fishery, especially in the last few years both from a quota closure perspective and from a regulatory perspective.

We had quota closures on May 15, 2009, right before the end of the season. We had a closure on December 20, 2009. We had another one on the 7th of October in 2010; then the 15th of July in 2011, so only a 45-day season; and then another one on the 8th of October in 2012. In between the 2011/12 season we had Amendment 18A implemented, which, as you're all very familiar, put in the trap endorsement, 35-trap limit, a thousand pound trip limit.

It increased the size limit and put in that requirement that they needed to bring the traps back to shore. Then in the following season, Regulation 19 implemented the ACL increase, which increased the ACL over double and put in that trap closure from November to April; and then Regulation 14, which is coming at the end of this season, will begin the next fishing year starting on January 1st, which is an important point to consider because you'll have January through April of exposure to right whales under a potential opening scenario whereas the quota closure might have obviated that risk under other scenarios.

I was asked to put together some information on black sea bass effort. Mike Errigo already addressed that in some good detail. I just wanted to go ahead and show this slide here. This is

effort in terms of total pots in the water through time; and you can see kind of a long-term trend of declining pot gear effort as you look at the full season of effort.

Then as you look on the bottom graphic here for the winter, you can see, as Michelle pointed out earlier, we had pot gear effort through May of 2009; and then we had that brief one-week opening in December 2010; and we haven't had any pots in the water since then. For this analysis, the methods involved several different data sources.

The first was the Southeast Fisheries Science Center's logbook, which is a logbook that is completed by federally permitted commercial fishermen. They self-report landings by species and they report the trip, gear, area and depth that was the primary for that trip; so it if trip-level data from 1998 through 2014. That was used to simulate trap gear landings.

What we did is we implemented in the code – we limited this analysis to endorsement holders only and we implemented a simulated 1,000 pound trip limit and a simulated 35-trap limit in order to see what – you know, we're basically trying to forward project what we think is going to happen; so we're trying to make the conditions as close to status quo as possible.

The next data source that we used was the Southeast Fisheries Science Center's commercial ACL dataset, and that is one that we used to actually compare whether the ACL has been exceeded. This provides aggregated dealer records of catch by gear and species; and it includes landings from vessels that don't have a federal permit.

That is an important distinction because in recent years we've seen an uptick in state-level commercial landings of black sea bass; so they provide a pretty important input into the total landings that are counted towards the ACL. We also used the ACCSP trip ticket for the most recent season. We used those last two datasets to simulate other gear landings; so gears other than pot gears.

Using those, what we did is simulated the upcoming Regulation 14 300-pound trip limit for hook-and-line and we simulated the thousand pound trip limit for May through December. We looked at three different scenarios for the spatial distribution of fishing, because we were faced with kind of a daunting task of trying to figure out where black sea bass pot fishermen might fish in the wintertime since it had been a while since they have done so.

There is Scenarios A, B and C. Scenario A was based on the spatial distribution of those trap gear endorsement holder landings from the November through May 2008 and 2009 season. Scenario B was based on those same group of people but from their most recent landings, which would be from the summer of 2013/2014 season. Scenario C was based on that same subset; and I did an average across the 2006 through 2008/09 seasons.

That was suggested by the science center because they were concerned of the economic crash in 2008 might have changed things; so Scenario A, they wanted something that counterbalanced that look further back in time. Soak time is probably the most important characteristic of effort when you're looking at risk or relative risk to right whales.

Unfortunately, soak time is only reliably reported across all the logbooks for the endorsement holders for the 2013 and '14 season. The science center actually went back into the raw logbook data and went through and tried to reconcile that for the '13 and '14 season. That is due to a misunderstanding from some of the captains on how they're supposed to report soak time.

I think some folks – and I read the instructions and I don't think I would have filled it out the right way myself. Some captains reported on a single trap level and some reported across all their traps for one haul and some reported as their total soak time for the entire trip across all the traps. There are several different ways that they reported; but for the '13 and '14 season they think they had it nailed.

What we did is we applied to the all the scenarios in a tiered approach so we were able to back-fill soak times historically using a tiered approach matching vessel to vessel, area to area, depth to depth, permit holder to permit holder and so on. We also were faced with another challenge, which was how do you simulate catch rates in the wintertime given that it has been a while since it has been open the winter for the pot gear and the stock has been rebuilding underneath.

We had four different scenarios that we looked at; and we looked at all these scenarios to try to kind of bookend what the realistic bounds of reality might be. Scenario 1 looked at the 2008/09 season. Scenario 2 looked at the 2008/09 season, but then it scaled up the 2008/09 catch rates using the scalar difference between the 2013 and 2014 catch rates and the 2008/09 catch rates; because we've seen catch rates, as Mike pointed out in his presentation, have increased substantially through time.

Scenario 3 just assumed that the catch rates in the wintertime would be equal to the October 2013 and 2014 catch rates. Scenario 4 was similar to that spatial distribution in Scenario C. We looked at the mean of '06 through '09. For the other gears, so the non-pot gears and other months for pot gears, we assumed that catch rates would be equivalent to the 2013 and 2014 catch rates, because that was the best data we had when I initiated the analysis.

What we needed to do was have a good proxy for where right whales were relative to black sea bass pot effort; and the best available right whale model was this Gowan and Ortega-Ortiz model from 2014. As I mentioned, it is published in Plus One. I don't know if you can read it, but the citation is down at the bottom of the slide here.

I'm talking right now about the model that is here from Florida through South Carolina in the green; and basically we looked at three scenarios for the way right whales would be distributed under that model. One was the mean; and basically what that did is that took the mean environmental conditions across the entire time period that Gowan and Ortega-Ortiz used to create their model. One was a warm weather scenario; and that used data from the 2011/12 season; and one was a cold weather scenario from 2009 through 2010.

Right whales; their east and west distribution and their north/south distribution is influenced by water temperature; and so what you'll see is as the Gulf Stream moves in closer to shore, the right whales are compressed closer to shore and spread further north/south; whereas, when the Gulf Stream is farther offshore, they tend to distribute themselves more east/west.

This model was based on the Southeast U.S. North Atlantic Right Whale Survey Data from 2003 through 2013. The significant inputs to the model were sea surface temperature, depth, distance to shore, distance to the 22 degree centigrade isotherm and then some interaction between those. I bring that up because it is important to look at these factors; and what we did is we incorporated this all into a very complex geo-database.

We also looked at the depths of the black sea bass pot gear from the logbook records just to calibrate yourself. For this model the maximum right whale sighting probability was between 10 to 25 meters depth; and for the black sea bass pot gear fishery from 2004 through I guess it would 2009, in the winter, the mean depth fished was 22.8 meters.

What we did for the North Carolina area, which wasn't directly addressed in the Plus One paper is I met with Dr. Gowan, and he put together a scenario for North Carolina using the same modeling approach based on UNC-W surveys. Now, there is less data off of North Carolina. They've done less surveys over time; 2005 through '08 was the data that he had available. He put together a long-term average.

The significant inputs to that model were sea surface temperature, depth, distance to shore and bathymetric slope. Just to kind of preface something that I'll show you later, one of the SSC members in particular was asking if it was possible to look into a monthly model for North Carolina.

There wasn't enough sightings-per-unit effort data off of North Carolina to drive separate model fits for each month like we were able to do for the Florida through South Carolina area; but because one of the significant inputs to the model was sea surface temperature, what Mr. Gowan was able to do was he was able to take the mean sea surface temperature for the different months in that time series and run the model predicted fits for those different months.

In that way we were able to address the monthly distribution of right whales based on the North Carolina area. Another thing that is important to stress between these two models is that these model outputs aren't directly comparable because they're based on different input data streams. Although each of these models puts out an output that could be considered relative abundance, the scales are not the same, so you can't combine these models into a single, unified model.

Because of that, I'm going to present to you risk in two different components. One will be the Florida through South Carolina component and the other will be the North Carolina component of relative risk. The way that this works is there is a daily accounting of both landings and relative risk based on these monthly models.

You've got your black sea bass traps, and you have those expressed as landings and effort; and you also are including landings from other gears on a daily basis starting January 1st and proceeding through time. You have a distribution of whales by month starting in January, then stopping on April 30th and kicking back in again on November 1st; and it varies by month as well.

You're looking at the overlap there; and you're getting what I term a fishery-weighted risk to North Atlantic right whales. If you have a lot of right whales in a spot but you have low fishing in that spot, that risk term is relatively low. If you have a lot of pots and a lot of right whales, that risk is relatively high. Then if you a lot of right whales and you have no pot gear at all in that area, then that risk is zero. That is how the risk factors get summed together.

What you get is a track through time of total risk until the quota closure. What we did in order to make this total risk comparable between all those different scenarios that we created was we computed Alternative 1, which is where you have no pot gear opening as zero risk units. Alternative 2 would be scaled to 100 risk units. All the other scenarios or all the other alternatives will be presented on that zero to 100 relative risk unit scale.

In the results, we did some summary things and there is a lot more detail in the report with regards to the spatial distribution of landings and effort; but what you can see is we looked at the depth fished and the depth fished by state. We looked at the changes in the depth fished by state across different fishing seasons.

Here is probably one that will be interesting to you. Like I said, we tried to bookend a reasonable range of reality with regards to catch rates; and so you can see here in the figure on the left, this is the catch rate in pounds of gutted weight black sea bass landed per day by month. You're looking at the red line, which is buried over by the others, for June through October as the status quo.

The green line there is other gear; so those are gears other than pots. The different other lines are the difference catch-rate scenarios we evaluated. You can see like for Scenario 3, the assumption is that the catch rate is going to be the same as October 2013 and 2014, which is why it is stable through time across, right?

We had seen, based on historical data, that catch rates tended to increase in the wintertime; so some of these scenarios scaled the 2013 and 2014 catch rate up and so on. It might jump out at you initially, looking at it, that Scenario 2, which is the one where we scaled the 2013 and 2014 catch rate to the winter catch rates in the past, is a bit unrealistic; but keep in mind that the spawning stock biomass has rebuilt substantially over that time period; and that is what that graphic on the right shows, that spawning stock biomass through time.

We ran these different model runs and you see there are quite a few of them for each those spatial distribution of trap gear effort scenarios, A, B and C. These are all the different catch rate and Regulation 16 alternative scenario runs. This is just for the mean distribution of right whales, so there is quite a few outputs from this model.

One of the outputs is the mean monthly North Atlantic right whale relative risk; and there is a series of figures in the report that you can look into in more detail; but this is showing you the mean relative risk for Scenario A under November on the left; and then for Scenario B for November on the right. Then there is December, January, February, March and April.

You can see that the right whales move; the fishery moves; and so this model accounts for those dynamics. Now, this is kind of the key point here. This is Figure F-1; this is in the appendix of the report. This is showing you the relative right whale risk versus the projected closure date. The projected closure date is on the Y-axis and the relative right whale risk for Florida through South Carolina is on the left there, on the X-axis.

The relative right whale risk for North Carolina is there on the right axis. That is showing it to you by alternatives; so those different numbers there are across all those different scenarios. So there is catch rate scenarios one through four, those spatial distribution of trap gear effort scenarios A, B and C. This is for the mean condition right whale distribution model run, but the cold and the warm look very similar to this with regards to the differences between the alternatives.

What you're seeing here is there is some variability with regards to when the fishery is predicted to close based on these different scenarios. There is some variability with regards to the relative right whale risk under these different scenarios; but what is informative on this slide is that the clustering of each alternative in Regulatory Amendment 16 is actually pretty consistent given those really different inputs that we had in the model.

The relative risk is pretty consistent in terms of the differences between alternatives. The SSC had mentioned that they wanted us to look into within-model uncertainty; and so to address that what we did is we took the upper and lower 95 percent confidence intervals of the models for North Carolina and for the Florida through South Carolina model; and we input those into the model and used those to develop confidence limits on these alternatives.

You'll behind these numbers error bars, and those are addressing the 95 percent confidence intervals of the model. You can see that although there is some variability due to the uncertainty in the right whale distribution model, the actual output from this relative comparison is pretty stable.

Some things that emerged from here is that obviously Alternative 1 has zero relative risk; and that is because we defined it as such because there is no pot gear in the water during that time. What also is interesting is that Alternative 1 has the latest closing date of any of the scenarios. Last season for the commercial black sea bass fishery with the pot gear closure in place, 99.5 something percent of the ACL was achieved.

When you opened the pot gear fishery based on the way this model is constructed, what happens is the more catch that is accounted for by the pot gear, the faster you hit your quota closure date; so we're basically at almost a hundred percent. Once you get all the data in, this is probably going to be a hundred percent for 2013 and '14 season.

So once you get all that data in, you're at a hundred percent; so as you add more, you're backing off of that 365-day opening. The other scenarios that provided the highest protection or the least relative risk to right whales would be Alternatives 7 and 5; and those also provide the longest season. Long seasons are also provided by Alternative 6 and by Alternative 8B. Then it kind of cascades down from there, Alternative 4, then 8A, then 3, then 2.

This is the other sensitivity run that we did on the request of the SSC. If you don't see a big difference between these graphics, that is because it didn't have a big impact. This is where we incorporated the monthly North Carolina right whale distribution information based on the changing sea surface temperature. You can see – I'll flip back and forth between the two of them – that the outputs are relatively insensitive to that monthly movement of right whales in North Carolina; and that would be impacting the figure on the right.

With regards to a discussion, it is obviously pretty challenging to predict the impacts of Regulation 16. There have been substantive changes to this fishery; and there has been no trap gear in the water for five years. The approach we took was to look at a reasonable range of alternatives in terms of scenarios. We looked at four catch rates, three spatial distributions of traps and three spatial distributions of whale.

We also looked at monthly North Carolina and uncertainty in the whale distribution. Kind of the take-home message is the results were pretty consistent across all of those runs. We came up with kind of a simplified look at relative right whale risk ranging from the most protective, which is Alternative 1, down to the least protective, which is Alternative 2. We categorized risk on a scale zero to 25 is low, 26 to 50 percent is moderate and so on.

This might be a good reference table when you're walking through your decision document. Some important points to take home is that it is a dynamic time for commercial black sea bass fishing. You caught nearly a hundred percent of the ACL in the 2013/14 season with traps closed November through April.

Nearly all the scenarios in the Regulation 16 analysis result in a quota closure. The commercial fishery is in a state of dynamic transition. Ordinarily what you'd like to do is you'd like to just take the past data and you'd like to run some sort of regression or seasonal auto-regressive model and fit the data to that and predict what is going to happen next year.

In this case we felt that the last fishing season was going to be a better predictor because there have been so many changes piled on top of changes in this fishery that the historical data is not really a valid predictor for future catch rates. It became a derby fishery with high summer catch rates and early quota closures in '09 through 2012. Prior to that, it was mostly a winter fishery.

Amendment 18A and 19 and 14 resulted in some regulatory changes. One of the things that has been noteworthy is that reduced trap gear participation has been offset in terms of landings by an increase in other gear harvest. In the 2013 and 2014 season gears other than pot gear has caught 68 percent of the commercial harvest; whereas, from '04 to 2013 they had caught about 28 percent of the commercial harvest. There has been a substantial change in what gear is catching the most black sea bass. I think I'm going to end with that. I've got a bunch of slides after this; they they're really more in the weeks; and I figure you guys probably have a lot of questions.

DR. DUVAL: Thanks for that, Nick. I know when Nick gave his presentation to the SSC, most of the rest of those slides I think were included for the kind of detailed technical questions that they were going to ask. Douglas.

MR. HAYMANS: Thank you, Nick, it was very detailed. I'm surprised that the SSC didn't ask for it; and I'm surprised that you didn't include it, but I think the main reason for these guys wanting back into the winter is for the economics. We're realizing they're catching their quota with hook and line and whatever else, but it is the value of the fishery. I think it is lacking some analysis of that value.

DR. FARMER: I've got some answers to that point and I think Roy has one as well.

DR. CRABTREE: Yes; and the answer is Nick is not an economist. You're right; what is lacking, in my opinion, in this amendment is an economic analysis that demonstrates the economic gain from removing the closure. Looking at prices would be one way to do that, but at this point we don't have that kind analysis, but I think that's something we're going to need.

DR. DUVAL: I think we'll probably get into this tomorrow when we go through the decision document. Brian has some stuff. I know that North Carolina has some like monthly price information that we've been able to put together. We can certainly get into that. Charlie.

MR. PHILLIPS: Well, it is not going to be just prices per size; it is going to be the average size of the fish. If you're catching larger fish in the winter, which are worth a lot more money, that is going to be a huge – so you've got to do price and sizes breakdown.

DR. DUVAL: Right; it is price by market grade, really, and time of year. Ben.

MR. HARTIG: Nick, thanks, I think the second time around was better than when I saw it at the SSC. It certainly helps to see this more than once. One question I meant to ask at the SSC and didn't get a chance; you're saying that the fishermen in 2013 and 2014 reported better. What are the factors that led you to believe that?

DR. FARMER: Substantial discussion with the Southeast Fisheries Science Center's logbook data collection guys; so Dave Gloeckner, Neil Baertlein and those folks went through and actually did an in-depth analysis of the trip records one by one in order to make sure that they were capturing soak time correctly.

You'd have to look at SEDAR 25 or I could look at it; but I'm pretty sure they didn't look at soak time in SEDAR 25 as the effort metric. I've been told that basically number of traps historically has been the one really reliable data point for the black sea bass reporting field and the fields have been somewhat shaky due to misunderstandings on basically what unit we're aggregating at; are we aggregating at the trip level when we're reporting these things like number of hauls, number of hours?

Then other folks think it is at the trap level; other folks think it is at the haul level. Because of those uncertainties, I was told don't use soak time prior to 2013 and 2014; and we're going to have to look at that; and we'll get it to you. It took them a while to go through all that stuff and make sure that they felt comfortable providing it.

Another thing that I can note about that is that soak time in terms of how this analysis is conducted isn't as important because it is – well, it is going to vary by fisherman and by area and depth, so I take that back. I thought it was static and only fixed on number of traps, but actually it is assigned to the vessel and the fisherman. It is going to vary so it is an important metric. What we did is we tried to match it as close as we could to the individual still perpetrating the fishing; so that we could use their 2013 and 2014 data and back-assign it under the assumption, which may be a tenuous one, that their fishing practices haven't changed between the 2013 and 2014 season and that '06 season forward.

We did implement on top of them in the simulation, the 35-trap limit, so if they were reporting more than 35 traps, we capped them at 35. If they had landings greater than a thousand pounds, we capped their landings at a thousand. We incorporated those Amendment 18 restrictions when performing this analysis.

MR. HARTIG: To follow up; that is all good and great, but the part that gets me a little bit is that it doesn't seem like the Southeast Fisheries Science Center over time has gone out of their way to tell how these people should report better. Without that, how do you have any idea that fishermen are reporting better?

That is a judgment call based on what Gloeckner is looking at based on what he is looking at in the logbooks. That is a pretty tough pill to swallow if you think about if fishermen haven't been contacted directly this is how you should report, this is how the effort should be done on a specific basis for a specific fishery. To me it is a judgment call by what the agency did and it may or may not be comparable.

DR. FARMER: My impression from conversations with Dave is that some outreach had been done, but I can e-mail him and try to get you a more definitive answer on why they felt that year was the only reliable year and maybe bring it to the table tomorrow. I'll be around.

DR. DUVAL: Other questions for Nick? I have a couple. This really has to do with the differences between the model that was developed for North Carolina versus the rest of the coast because of the relative capacity of sighting data off North Carolina compared to the rest of the coast. The model for the southern part is really based on, at least according to the documentation here, relative abundance in the southern area whereas for North Carolina it is based on probability of occurrence.

At least that is what it says here, and it is technical –

DR. FARMER: I think it is a sighting probability, but, yes.

DR. DUVAL: Probability of presence versus relative abundance.

DR. FARMER: So if multiply the sighting probability times the effort – so both of these models basically assume that there is a fixed sampling effort. What they do is they control for effort; and so then if you multiply it by a uniform effort across the prediction, then you get a relative abundance.

I think the reason we referred to it differently between the two models is because the inputs are different in terms of the scale of the input data. To refer to them as the same thing, if they're both called relative abundance, then you would add them together and you could have a unified model. I think Dr. Gowan is available on the phone. If we really want to go into more detail on that, he can provide more information.

DR. DUVAL: And that was really just sort of confirming one of the major differences. Then the other one was that the sightings' data off North Carolina was averaged together over all months and all years because of the relative lack of data; so the way that you tried to address the time-bearing component brought up by the SSC was to really use sea surface temperatures as a predictor of where whales might be more likely to occur.

DR. FARMER: That is correct.

DR. DUVAL: Okay, I just want to make sure I understood that. Okay, I'm going to cogitate on that. I know that the sightings' data in North Carolina; the majority of those sightings have occurred in March. Other questions for Nick right now? Gregg.

MR. WAUGH: Nick, in your Slide Number 5 where you got total pots; is that total pot hauls? The numbers are – it looks like almost 50,000 pots in 2003 and '04; and even when you get over to '13 and '14, it looks like you've got almost 10,000; and the maximum number of pots per endorsement holder are 35; and you've got 32 of them; so that is just a little over a thousand. What does that total pots mean?

DR. FARMER: Well, this is not restricted to endorsement holders. This slide in particular; this is showing the total effort through time, so it is not endorsement holders only. But, yes, this is total pots, it is not total hauls. If you summed the "num" gear field and the data that I sent to Mike, you'll come up with the same information.

MR. WAUGH: And so that is saying in 2013 and 2014, there were almost 10,000 pots fished?

DR. ERRIGO: I can help. It is more like trap deployments. Each trip has a number of traps that is on it; and if you sum that number of traps across all trips in a year, you get this number I believe is how that is done, because that is how you get such a large number. The number of traps – like how I did it is different. That's the average number of traps fished by a fisherman on a trip. This is the total number of traps that were deployed by a fisherman during a season, over all the trips – total number of traps deployed by all the fishermen over all the trips.

MS. BECKWITH: I just want to give Marcel an opportunity to go back to my original question, which was did the SSC feel like the concerns that they had with this presentation and the information that went in it; were they taken care of, were they addressed?

DR, REICHERT: I think by and large they were. Still, as Nick mentioned, one of the assumptions of this analysis is the relationship between the co-occurrence of black sea bass pot efforts and whale sightings; that is an assumption that is part of that. As I said earlier, the SSC

had some concern about that assumption and felt that, as I mentioned earlier, that it overstates the model and data capabilities. But that is what it is, it is an assumption of this analysis and I think it is important that the council realizes that. In terms of some of the concerns relative to the relative scalar, in one of your slides – I'm not sure which one; I think it is number 23 – towards the end –

DR. FARMER: The percentages snuck in there and I'll have to delete those out. If you just ignore the percentages; those relative risk units, they're not a percentage. They're just a unit; so those are supposed to say RRU, and I think they say that in the manuscript that is in the briefing book.

DR. REICHERT: Okay, so I think the majority of those concerns were addressed given the assumptions of the overall analysis.

DR. DUVAL: Other questions or comments for Nick? I know this is pretty dense and a lot to digest all at once I think even for those of us who have seen it a couple times in terms of trying to use available environmental conditions as well as whatever sightings' data are available to develop some measure of a likelihood of co-occurrence between the fishery and the whales.

If there aren't any other questions for Nick at this point and if we do have some other questions tomorrow morning after people have had a chance to chew on it, we might be able to ask you to –

DR. FARMER: Definitely.

DR. DUVAL: Mr. Chairman, as I suggested, given the hour – I have 5:42 p.m. on my clock – I'm going to suggest that we go ahead and recess for the evening and start back up at 8:30. Brian will take us through the decision document, and Nick is still around in case there are any other questions, then we can start discussing preferred alternatives.

MR. HARTIG: Thanks, Michelle, that's how we'll proceed.

(Whereupon, the meeting was recessed at 5:42 o'clock p.m., December 2, 2014.)

The Snapper Grouper Committee of the South Atlantic Fishery Management Council reconvened in the Grand Ballroom of the Doubletree by Hilton New Bern/Riverfront, New Bern, North Carolina, Wednesday morning, December 3, 2014, and was called to order at 8:30 o'clock a.m. by Chairman Michelle Duval.

DR. DUVAL: Welcome back to the Snapper Grouper Committee Meeting. I would like to pick up sort of where we left off at the end of the day yesterday. We had several presentations with regard to right whales, biological opinions under the Endangered Species Act, and a time frame for things like that.

We had a presentation from Dr. Farmer with regard to a model that was developed for North Atlantic right whale occurrence in the southern area and applied to the black sea bass pot fishery

both for North Carolina as well as south. I know we didn't have a whole lot of time for questions at the end of the day yesterday; and I know that people might have had an opportunity to sort of think about some of these things overnight. I wanted to see if there were any questions for Nick with regard to the model or if there are other questions in general. Dr. Laney, I know you were not here yesterday.

DR. LANEY: Yes, ma'am, and I apologize for that. I was in another meeting in Raleigh with my Assistant Regional Director; so I'm sorry I wasn't here to hear the presentation. I do have some science questions, however, and I guess I address those to Nick or whoever else is appropriate. The first one is whether or not pot density was considered as a factor?

Again, I know that there has been a lot of discussion about comparing the lobster fishery in New England with the black sea bass fishery in the South Atlantic. It seems to me that pot density is a big factor that you would want to consider when you're looking at the risk of right whale entanglement, which to me would entail at least knowing the number of pots that are out there an given time in the area in which they're being fished and, of course, how that compares to right whale distribution. That is question one.

Question 2 is I'm aware that there is a conch pot fishery at least in Virginia and possibly north of Virginia, and I was wondering if anyone has looked at that fishery and what the risk of entanglement by right whales in those pot fisheries are because those are using vertical lines and have fairly heavy pots at least in my experience, because we have encountered some of those during our cooperative winter tagging cruise on occasion.

In talking to Tom Burgess I know we have some conch fishing going in North Carolina. Tom thinks that some of those using pots as well; so I just wondered if there has been analysis done on that other fishery which is employing pots. I e-mailed my Virginia colleagues to ask them how many pots are out there. At least from a 2006 report, I found they have about 200 fishermen in that fishery in Virginia alone. It is a three to five million dollar fishery based on the information in this 2006 fiscal analysis I found; so I would be interested in whether or not that one has been analyzed as well.

DR. DUVAL: I think the first question with regard to density is certainly something for Nick; but it sounds like the conch pot fishery question would be more for either one of our two PR staff members. Nick.

DR. FARMER: With regards to pot density, do you mean by that how closely or how far the pots are spread out within a given area when the fisherman sets them; is that your intent there?

DR. LANEY: Yes, Nick, that would be. It seems to me that would be a piece of critical information with regard to trying to estimate probability of encounter.

DR. FARMER: All right, so the best available information that we have is from the captain-reported logbooks. They report at a trip level so you're getting the number of traps and the soak time at a trip level; and you have the number of hauls. They report the area and the depth that was most predominantly fished on the trip.

There is no information in there with regards how far apart they spread their pots within that area or depth or whether all of their sets were actually within that area or depth. If some of the sets were in a different area or a different depth, for example, they're reporting the predominant area and depth that they fished in.

The assumption that we're constrained to with that is that we assume that the effort is uniformly distributed within that area/depth grid. What we've done is we've broken out the depths into five-meter bins and we've applied those spatially based on the area reported and the depth, using a generalized polygon of a coastal relief model that is developed by NMFS or by NOAA.

That allows us to be a bit more precise with the areas that these things are being assigned to than what you're probably used to seeing, which is the big shrimp stack grids, so we can actually get it down into the bathymetry because they're started reporting depth, which is nice. It is a more refined area than those big stack grids; but again we don't know what the distribution of the pots is within those.

Now, we also don't know enough about entanglement rate to know whether a bunch of pots all right next to each other would be more risk or less risk than a bunch of pots spread out. I think for the purposes of this analysis, there is not enough detail in entanglement rate to know whether that would have an impact or not; but the assumption made in the analysis is just the distribution of right whales and then the overlap of the effort is a proxy for entanglement risk.

DR. DUVAL: Wilson, it sounds like your question was more about what are like the maximum number of traps you might have in the water at any one time or at this particular time during the winter. I know Mike had a slide in his presentation that talked about I guess the average traps fished per day or the maximum number of traps fished per day per endorsement holder. I'm just trying to clarify what you're getting at.

DR. LANEY: Yes; I think that is basically it. It seems to me – I mean, I'm coming at it from the very simple perspective of looking at things from a risk perspective. Obviously, if you have zero traps within the water, then the risk from trap entanglement at least would be zero; and if you put one every two meters throughout the entire area, the risk is huge.

Somewhere in between there lies the true answer and that is going to depend on how many traps are out there and where they're placed. I think Nick is correct; to the extent that you have a higher trap density within a given area, you would expect the probability of entanglement to be higher within that area given the traversing of that area by right whales.

Obviously, a lot of it is dependent, too, on where the whales are at what time of the year and which path they're following. I'm just trying to get us to a point where you could – I know you're limited to the extent that you can't refine the model more than the data that you have available to do that. Obviously, the best information to have would be where every trap is placed and when it is there; and that would presumably enable you to refine model and do a better job of calculating the actual probability of encounter. I think Nick has a response to that.

DR. FARMER: The model uses three different scenarios to express the spatial distribution of fishing effort; and these are monthly averages that are then distributed over days. In Scenario A I believe it is the 2008/09 trap distributions with Amendment 18A restrictions applied to those; so only the endorsement holders are considered.

Only 35 traps or less are considered; and those are dispersed in space as they were in 2008/09; and then the soak times were applied on top of those. In Scenario B you're looking at the distribution of number of traps and soak times from the 2013/14 season applied as a constant through the months.

In Scenario C you're looking at the mean of '06 through '09, similarly with the 18A restrictions applied on top of it. We are driving the effort based on the actual captain-reported data while still accounting for those 18A and 19 regulations and changes in the dynamics of the fishery from that time. It is kind of a daily accrual of number of traps by zone and we're looking at it actually on the vessel trip level.

DR. DUVAL: The next question was really about had the conch fishery or the whelk pot fishery up in Virginia and areas north been considered. Barb; can you provide any insight into that?

MS. ZOODSMA: When you say considered; is that in the take reduction plan?

DR. DUVAL: Wilson, can you clarify?

DR. WILSON: Yes, either in the take reduction plan or have you already done a biological opinion on it?

MS. ZOODSMA: Well, if a biological opinion was done, that would have been done out of the northeast. You've got some information on the biological opinion?

MR. HOFFMAN: I'll just read what it says here. Essentially that fishery is handled by the Northeast Region or the Greater Atlantic Fishery Regional Office. They did a very large biological opinion on most of their FMPs. We can check that and find out what it says about this particular fishery.

Anything about North Carolina, it is probably the same fishery, so sometimes fisheries overlap, but the northeast has primacy on some of those even though they're in North Carolina sometimes depending on the fishery.

I think the summer flounder fishery, not the gillnet one but the summer flounder trawl fisheries, they deal with more so than we do. When I get back, I'll find out about these conch fisheries and let you know what biological opinion they're in and where you can get a copy of it if you want.

DR. LANEY: Okay, thanks; yes, I'd be interested in knowing what sort of reasonable and prudent measures, if any, were imposed on that fishery.

MR. HOFFMAN: Yes; we'll look that up and then I'll let you know.

MR. PHILLIPS: I guess I'm still trying to wrap my head around the boundaries. If I remember what I read, it was vertical gear in federal waters. In our area it is 2,200 pounds and a 600-pound weak link. Maybe I'm wrong but I'm going to guess that the conch traps would be at least no more than that.

You don't have the information with you, but you should know about the blue crab fishery, which is basically the same trap. That would be the rule for the blue crabs, 2,200 and 600 pounds unless you're in Florida state waters, I think. I've got a commercial blue crab license for Georgia. I can go set 200 traps tomorrow if I want to and use the line regulations; and I'd be perfectly legal.

That is almost as many traps as all the black sea bass guys put together. It just doesn't make sense that you can have that kind of potential effort – yes, most of it is inshore, but I've seen those guys fish out to the sea buoy lines and stuff at times. We've got a conch fishery up there that we don't know what their rules are right now or this council doesn't.

We've got the blue crab fishery that is a lot more traps and has the potential to put out a lot more traps if they want to or have to or need to and try to make their payments. It seems like we should be able to do something to let these guys fish considering all these other fisheries that are allowed to operate. Maybe you have a reply to that; I don't know.

DR. DUVAL: Charlie, that sounds like that would be a PR question. Barb, do you have any response to that?

MS. ZOODSMA: I think, Charlie, the best thing I can say is that you have – what we were looking at is reducing risk across the board, right, so the blue crab fishery, they were out there – and let me back up a little bit. There are two ways of reducing entanglement risk to large whales. One is just reducing the number of lines, right? Another way is reducing the severity of entanglement.

What the northeast did was they tried to reduce the probability of an entanglement by reducing the number of vertical lines. With the blue crab fishery, we felt that the best way forward was to try to reduce the severity of the entanglement, so we tried to limit the breaking strength of the line and actually asked for a weaker weak line; so the weak links would pop faster.

They were at a certain level of risk; we reduced that risk, right, from trying to reduce the breaking strength of the gear, basically. What you're asking right now, where you are is there is a closure during the right whale season for black sea bass pots; so you're at a certain level. To open that up raises this back up and increases the risk. Probably nobody ever foresaw us being in this situation we're in right now; but nevertheless that's where we are. What is being asked is to raise the bar; and that is not being done anywhere along the east coast.

MR. PHILLIPS: Well, I understand where you're at; and I'm trying to figure out a way to keep these guys fishing and doing basically what they're doing; maybe moving around some; moving out past 20 meters. Theoretically, tomorrow if they wanted to go set conch pots instead of sea

bass pots, which is not anything that we regulate, they could do that until it may cause you to turn around and make a new regulation or something.

Theoretically, they could go offshore and start setting conch pots if they can't work sea bass. I'm looking for a total fix and not kind of these piece fixes. I know you put a puzzle together one piece at a time, but it is there anything that would stop them from setting conch traps?

MS. ZOODSMA: I believe before we were talking about conch traps that were set up off Virginia; and conch traps I believe are included in the list of fisheries. We have two pieces of legislation that we're working under, right, the ESA and the MMPA. Just in ESA information is that the conch does not appear to be a federally managed species; so is it a state fishery, do you guys know? Yes, okay, so there would be no biological opinion on them.

Now, I do believe it is on the list of fisheries; and if it is on the list of fisheries, it would be managed under the take reduction plan and the same scenario would have happened; it would have been brought down. That was totally unclear. They would have addressed the risk with the take reduction plan.

MS. BECKWITH: So state-managed fisheries aren't applicable to the Endangered Species Act or the Marine Mammal Protection Act?

MR. HOFFMAN: As far as the Endangered Species Act goes, we wouldn't do a biological opinion because it is not a federal action. However, any take would be not legal and the state-run fishery, if they have take, should have a Section 10 Permit, which there is only two that I know of that have those; both in North Carolina, by the way.

We can regulate those fisheries under 11(f) of the Endangered Species Act if we think that there is a problem; that we can do emergency regulations that either shut it down or something like that. We don't manage that fishery so there is no federal action and Section 7 is strictly based on federal action.

Now, when we do a federal action, we would take into account state and local actions in the cumulative effect section that may affect the species we're dealing with. That is about all that we would deal with in the state fisheries; but any state fishery that takes endangered species should have a Section 10 Permit, ESA Section 10 Permit; or if it became a big problem, we would probably come in with some sort of emergency rule through 11(f) of the ESA.

DR. DUVAL: And we are intimately familiar with that here in North Carolina. I think it was just the way it was being explained that was slightly confusing; because those of us here in North Carolina know that state fisheries are subject to the ESA. I just had a couple questions or comments, I think.

I'm still struggling a little bit with this model as it applies to North Carolina sightings' data and the fact that those data are very few. It is all publicly available on the SEAMAP Website. All the sightings' data are being averaged together across all months and all years and even though there is a temperature component to the model that is applied at a semi-monthly level, my

concern is that you're taking all the sightings' information, which is not homogenous across all months, and basically saying that there is the same likelihood of whales being distributed in North Carolina waters throughout the year; and we know that is not true.

I'm sure if you went and asked the researchers who collect that data when during the year is there a greatest likelihood of co-occurrence in North Carolina waters, they're going to say March and April. I believe this is reflective of some of the concerns that the SSC had as well. I know that this model has been published in a peer-reviewed publication, but this application of it to these data is not peer reviewed. Nick.

DR. FARMER: So in follow-up to your question about that yesterday, I got in touch with Lance and Tim and they had some information that I wanted to share with you guys. Tim provided me with a table of the number of sightings and surveys by month for the North Carolina data. For January we've got one sighting with 24 surveys; February, four with 39; March, 14 sightings with 46 surveys, which is the highest number of surveys in the time series; April, two sightings with 34 surveys; May, one with two surveys. No sightings in June, October or November with a combined 20 surveys between those three months; two sightings in December with 24 surveys.

He wanted to make the point that there were more sightings in March but also more effort; and the model for North Carolina is unable to consider survey conditions as in the Florida/South Carolina model. His comment is that it is safe to assume that any whale seen migrating north off North Carolina in March would have been present off North Carolina in another month earlier in the winter when migrating south. There is two take-home messages there.

One is that it would be difficult to develop monthly models for North Carolina given that really low level of sightings'; effort. The number of sightings and the number of surveys are hyper-correlated; so it is hard to make an inference as to whether there is more whales in a month because is also more surveys in that month. Then I guess the final consideration is just that when you control for these things, it looks like there is kind of a consistence presence, so that seems to agree with kind of the best available information we have from Tim and Lance, who are our right whale experts.

DR. DUVAL: Thanks, Nick, still not a satisfactory answer, but I accept that. Mike.

DR. ERRIGO: Just two things; one is not all the whales migrating north would have been seen migrating south. I think we can all agree that the calves migrating north would not have been seen migrating south. Two; if the data is so sparse and there is not that terribly much effort, perhaps using this type of modeling approach is an overextension of what this data is capable of.

DR. DUVAL: Which gets back to just the SSC concerns about the uncertainty in the information and the fact that this has not actually been peer reviewed. The model itself has been peer reviewed in the publication, but this particular application of it has not; and I know the SSC wanted to see this again. Nick.

DR. FARMER: Yes; this particular application of the model hasn't been published in a peer-reviewed paper, but it has undergone a full and comprehensive scientific review by the science

center and was developed in collaboration with right whale experts. To my take on it, it is the best available information that we have regarding the distribution of right whales off of North Carolina, recognizing as you pointed out that there are limitations especially with regards to a monthly dynamic, which we've tried to address in the most scientifically robust way possible, which is by using sea surface temperature as the driver.

I think the model fits are relatively satisfactory when you aggregate across all the months; but if you tried to do a monthly model based on those low sightings' effort in some of those months, you wouldn't be able to come to convergence on that model fit.

MS. ZOODSMA: I would also just add that Dr. Errigo had a good point in that the calves are not seen during the southward migration. Obviously, they're not there; but that would account for the March and April perceived increase in right whale presence off North Carolina because moms and calves tend to spend more time on the surface. That is documented in the literature.

They would be more available. Their availability bias would be lower than other whales; and that's also, Michelle, why I went into great lengths to try and explain that these right whales have as little as a one to three week residency time in the southeast because they are moving up and down the coast whether we see them or not.

In the literature it has been peer reviewed and published that traveling right whales are harder to see; and that is true with bowhead whales, too, that bowhead whales tend to be less dense in their migratory areas, but again it has been published in the literature that they're harder to see when they're traveling.

I understand the frustration off North Carolina, but the fact is the data that we have these days we know that right whales are present in greater numbers than what the sightings-per-unit efforts show. I would say that is also skewed similarly or it is skewed because it is only showing where we searched and it only addresses animals that are available to be seen; so it has its limitations as well.

MR. COX: Nick, you've put together some good models. You have got sea bass pot fishermen in here that have been fishing for many years, that have got real-life experience on the water, and we have never had any encounter with whales. Is that worth anything to the table?

DR. FARMER: Well, it is certainly worth mentioning. Like we said, we can show I think pretty convincingly that there is an overlap in the spatial distribution. Assuming that the whale sightings' effort data and the modeling approach taken to address the gaps in that survey are correct and assuming that the logbook-reported areas and depths fished are correct, we can say that there is an overlap; but we don't have information regarding an entanglement rate. It may be that in your personal experience you've never seen one get entangled and that goes to that unknown entanglement rate.

DR. REICHERT: To that point, I think it is reminding you that is one of the things that the SSC said; that they cautioned that assumption that co-occurrence was a proxy for entanglement. The SSC had some concerns about that; so I just wanted to remind you of that.

DR. DUVAL: Anna and then I have another question and then I think we should start moving into the decision document.

MS. BECKWITH: Well, to Marcel's point that co-occurrence is a proxy for entanglement, I'm still struggling to –

DR. REICHERT: The risk.

MS. BECKWITH: Right, the risk of. I'm still struggling to come together with the effort data that you have in your presentation and from the presentation that we saw from Mike yesterday. Our average pots in the water in March and April over, what was it, 2006 to 2009 was there seemed to be about 240 pots in the water at any given day.

As I look through your effort information, you're assuming that the total pots in March and April, especially March, were about 20,000. I understand that it is over the entire month, but I'm trying to understand the discrepancy between those numbers; so can you go back and just explain to me really quick where that effort information for the black sea bass pots – the total pots is coming from?

DR. FARMER: That comes from the captain-reported logbooks; and it is just a different way of presenting the information. I believe Mike presented the information as a total of how many pots there are in general and then averaged across a month; so on a daily basis I guess is how he presented it; whereas, my presentation has to do with the total number of pots in the water if you add up on a daily basis how many pots are in the water. You're exactly right on how that is done.

I guess in terms of a proxy for risk, I think that the cumulative total is probably a better proxy for risk; because if you only have 240 pots in the water in month, that is very different. If you have one day of sets in a month versus having them in the water on a daily basis for X-number of hours – and for me it is the total time that it is in the water; so the pot times the soak time is probably the best proxy for risk. Obviously, if the pot is not water, the whale won't have any risk of entangling itself in the pot.

DR. DUVAL: Which brings to mind just another difference between how this fishery operates and how the lobster trap fishery operates up in the northeast because those traps soak for seven days to two weeks. They're just in the water all the time. There is a pot-removal period, but that's it. Doug.

MR. HAYMANS: But they can remain in the water for up to 30 days. They may be fished a week, but they're allowed 30 days.

DR. DUVAL: Yes. Any other questions right now. Doug.

MR. HAYMANS: I just had one with regard to the surveys. Barb, were those specific right whale surveys or do they take into account any of the dolphin surveys that were done? I'm

making the assumption that during the mass die-off events that there were additional surveys done on dolphins up that way.

MS. ZOODSMA: Yes, my understanding is that data also includes aerial surveys for other species. There are some generic aerial surveys that are done in the Mid-Atlantic for the navy and BOHM and that sort of thing; so my understanding is those data are included.

DR. DUVAL: Okay, I just wanted to circle back really quick to something that Doug and Roy were discussing yesterday, which was actually – and I think there might have been some misunderstanding about this. I think Doug was referring to the baseline in the biological opinion.

If the council selects a preferred alternative that would trigger a biological opinion, the baseline from which that would be calculated; and the Section 7 regulations say that the Service will use the best scientific and commercial data available and will give appropriate consideration to any beneficial actions taken by the federal agency or applicant, including any actions taken prior to the initiation of consultation.

I think, Roy, when you were addressing Doug's comment yesterday, it sounded like you were referring to the baseline for analysis of alternatives in the regulatory amendment and Regulatory Amendment 16 being the status quo as in what is in the water right now.

I just wanted to make sure that everybody sitting around the table is clear on what baseline means with regard to the NEPA analysis that are required for Regulatory Amendment 16 versus a baseline for a biological opinion, because I felt like that was a little bit confusing yesterday. Doug, I'm pretty sure you were referring to the biological opinion.

DR. CRABTREE: Well, I think the baseline for both of them is going to be what the current regulations are; so that means it will take into account everything you did in 18A and previously. But the current regulations are there is a closure in place and there are no traps in the water during the right whale calving season.

Now, if you select an alternative that is going to allow some traps in the water, then the analysis would take into account the 18A measures and the things you've done; but the status quo in any situation includes the closure, because that is what the current regulations are. Am I missing something here?

DR. DUVAL: Well, maybe I'm missing something. You're saying in regards to both the biological opinion as well as the analyses in Regulatory Amendment 16?

DR. CRABTREE: Yes; status quo includes the current closure, but it also includes – I mean, there are also the 18A regulations, which are on the book, are all part of the status quo, but the status quo is there are no traps in the water during the right whale calving season.

DR. DUVAL: I think what we're getting at is just with the new biological opinion, appropriate consideration being given to beneficial actions taken previously. It seems like there is a

difference between the status quo for NEPA analyses in Regulatory Amendment 16 versus how past actions would be considered in a biological opinion. That is all I'm getting at is trying to be clear about that.

DR. CRABTREE: Well, it is different in that it is not a NEPA document; so it is not going to have Alternative 1, status quo, and then a series of alternatives. If you select a proposed action in this that allows some traps in the water; those traps that are then allowed in the water will be subject to previous things you've done in 18A and things. The baseline to analyze that against is against the current regulations, which is no traps in the water. I guess I don't see the confusion here. It is clear that the baseline is no traps in the water during the right whale calving season.

DR. DUVAL: Bob, did you want to add to that?

MR. HOFFMAN: Just so you know, in the biological opinion, like Roy said, we're going to analyze the action; and that is the whole entire fishery, the whole entire snapper grouper fishery with all the amendments included, including whatever the new 16 is. That is what we will analyze. The baseline of the biological opinion won't include any of that because that is the proposed action.

The baseline in the opinion will include any other opinions in and around where this fishery is prosecuted that affect these animals; and because these animals are wide-ranging, they'd be all the federal actions up and down the coast, including any beneficial things like the speed would be included in that baseline, any actions other fisheries may have taken to reduce risk; and that would all be included, also. Anything in the snapper grouper fishery would be part of the proposed action; so that would be not included in the baseline at all for the biological opinion.

DR. DUVAL: I'll stop. I mean, that was clear to me that the proposed action is not part of the biological opinion. I just wanted to make that people understood because I felt like there was a lack of clarity in the conversation yesterday with regard to baseline for biological opinion versus a NEPA analyses and the regulatory amendment. I'll stop there. Any other questions from anybody sitting around the table at this point before we jump into the decision document? All right, Brian.

DR. CHEUVRONT: I'm starting on Page 6 of the decision document; and I want to make a couple of comments as we get started in this. First off, the alternatives for the one action that are in this amendment, at the June meeting of this year the council gave direction to staff to develop a new version of Alternative 8 and subalternatives.

You all need to all be clear is that as the IPT and all was working on these things, there is certainly by no means consensus among the IPT members on all of these alternatives as to whether or not they would be supported or viable, but these were developed as a result of direction from the council. When you're looking at these things, you need to understand the differences between them and go ahead and take all into account as you're starting to formulate what you want your preferred alternatives to be.

Also, I need to make a comment about economic analyses regarding this amendment so far. Whenever we do economic analysis, a quantitative economic analysis, especially on something as detailed-oriented as the actions are here; before the economic analysis can done, the biological analysis needs to be completed first.

The reason behind that is we need to make sure that the two line up. Sometimes we use the same datasets; sometimes we can't use the same datasets. I do know that a fair amount of the data that went into the biological analysis for Regulatory Amendment 16 relied on logbook data. Well, that's the one that we typically rely on the most when we're doing economic analysis, because that's the only place where we can get economic data.

However, I think the logbook data that both Mike and Nick were looking at probably didn't include any of the economic data in their datasets. What that requires is getting a merged dataset from the science center. The biological analysis in many cases was really being worked on right up until the eleventh hour and fifty=ninth minute.

I can say that as far as the economic analysis goes for this amendment, I've been contact with SERO staff, who have been very helpful, and we've come up with an analysis plan that we're going to be following. I've gotten some help from science center as well in discussion about the data to be used and things.

The work is ongoing, so please do not think by any means that the economic analysis that you see in this document is all you're going to get. What you have in this document is a qualitative analysis that basically looks at the alternatives in relation to one another based largely on the predicted closures that came from a table that was in the document that Dr. Farmer prepared – remember, he had his A, B, C, scenarios and scenarios 1 through 4 – and sort of lacked at by closure dates.

The bottom line is that really the longer a fishery lasts, the bottom line is that means you have more trips that are being taken; and that is less efficient economically. I know we all aren't excited about derbies, but actually derbies are good economically because they mean you lower trip costs. That is strictly from an economic perspective. There may be other reasons why derbies are not good; but what I'm saying is from an economic perspective on a commercial fishery, derbies are good. That's all we had to go on.

There is more analysis that is going on and we've got more things that we're going to looking at. To that end we thought that – and this is not coming directly from the IPT. This is just some discussion amongst mostly council staff sort of at the last minute there looking at the purpose and need for action here. You've looked at the purpose and need. You've modified it in June, and then you looked at it again briefly – no, I don't think you even looked at it in September.

We've come back to you with what you had suggested for changes for the need from June. One of the things that you did, I'll just remind you, in June you changed the need from – originally when the document came to you, the need for the amendment is to minimize potential negative socio-economic impacts to black sea bass pot endorsement holders while maintaining protection for ESA-listed whales in the South Atlantic Region.

The language that got changed was from minimizing potential negative socio-economic impacts was changed to "increase socio-economic benefits". I don't know if you wanted to talk about that. It really sounds like a lot of this is going to hinge on whether this can go forward; and what you decide is going to hinge largely on the economic effects of what is going on.

What is it that you're trying to achieving? Are you trying to achieve – are you trying to increase socio-economic benefits or are you trying to minimize negative socio-economic impacts? I thought we might want to have a discussion to see if you want to consider changing that language or not. If you don't want to change it, that's fine, but we thought we'd bring that to your attention so that you could a discussion as how you would like to proceed there.

DR. DUVAL: I certainly recall that discussion and I'm sure a few others around the table do as well. Thoughts on considering a change to the need for action. Roy.

DR. CRABTREE: Well, I agree with Brian that we need to think about why are we doing this. I'm not sure I understand the difference between "minimizing negative socio-economic impacts" and "increasing socio-economic benefits". It seems to me that is largely semantics. The trouble I see with it right now, though, is we say the need for the amendment is to increase socio-economic benefits; but at this point there is no analysis that indicates that this does that.

It also says "maintaining protection for ESA-listed whales", but I think a lot of people would argue that this is reducing the protection for the whales. I think the biggest problem with the amendment right now is there just isn't any analysis to indicate what the rationale for doing this is. You've got a fishery that caught the ACL.

The catch per trap according to Mike's presentation is up 89 percent; effort is down 59 percent; the ACL was increased from 364,000 to 780,000 pounds. The number of permits went down from 51 to 26. On the face of it, it looks like the permit holders in the pot fishery are making more money now than they've made in many, many years. It is just not clear.

If we had an analysis that showed a huge jump in prices during the right whale calving season, that might be some sort of rationale for it; but right now there just isn't really any, and I think that is a real problem in terms of NEPA and in terms of not being seen as arbitrary and capricious. I really think that's the fundamental problem we have right now is we really don't have a very good rationale for why we would be contemplating taking this action.

DR. DUVAL: I think Brian has addressed the reason for the lack or the incompleteness of the economic analysis and not being able to do that until the biological analysis is complete. It is my understanding that has just been received; so there is no way we would have that level of economic analysis. With regard to increases in catch rates in the pots, well, sure, we have a biomass that's double what it used to be.

I would fully expect that those catch rates are going to go up. I don't see that as necessarily pertinent to a discussion of whether we're minimizing socio-economic impacts or increasing socio-economic benefits. The increase in the catch rates is the result of measures that we took in

a previous amendment. Certainly, those catch rates are going to be increased. It is not as a result of this amendment that is under consideration right now. Jack.

MR. COX: Roy, something that I just want to point out is, yes, we are catching the ACL; but as that water warms up and we fish more later in the spring, we're catching smaller fish. We're catching the pounds, but they're not worth the value of the larger jumbo fish that we catch this time of year and up through April. We're being forced to fish on a smaller fish size.

DR. CRABTREE: Well, that all may be true, but we need a good quantitative analysis that shows that is the effect; that shows here is the analysis that indicates that is the case; here is the value of it; here is the dollar amount that we estimate this would bring to the fishery. We don't have any of that right now.

I understand, Brian, that it is not complete and we don't have it, but that is fundamental to the whole thing. You're going to need a compelling – if we're going to do this for economic gains, whether you say it is reducing hardship or increasing benefits, you're going to need a good, solid, quantitative analysis that provides a compelling reason for why we need to do that; and that just hasn't been done yet. That is my point and I don't know if it is going to show that or what it will show, but until we have that I don't think we're in a good position to know whether we can move forward with this or not.

DR. CHEUVRONT: And just to follow up with what Roy was saying, he kind of hit my point that I wanted to make at the last there. We have an analysis plan for the economics for this fishery. We don't know what the outcome of that is going to be yet. I've done some basic analysis on price per pound given the closed season versus the open season; and, yes, there is a difference.

It doesn't appear to be a huge difference at this point. It is more of a back-of-the-envelope analysis; and I've only shared it with one other economist at SERO at this point. We talked about it and said it is okay for what it is, but it needs to be refined. That difference really is during the closed months the price is actually a little bit higher; not a lot, but it is a little bit higher.

But then we were looking at the analysis that Mike had done; so we need to fold some of this in, because Mike was showing that they're actually more efficient at catching more fish during those closed months. All that has to go in together; but what we don't know is no matter after you do all these analysis, is it going to amount to enough to make it worthwhile to do this.

I just don't want to give everybody the hope that is going to be the savior of why we're – the economic analysis is going to be the savior of making this amendment work or not. I'm just saying we have a plan. We're going to enact it. We just don't what the outcome is going to be; and I think that's fair. The plan is to bring that back to you. We hope we will have it done in time for the March meeting. That is kind of the goal right now.

DR. DUVAL: And I think you need to consider the social effects, Roy. The pot fishery was 90 percent of the catch – contributed to 90 percent of the catch in the past before we put in I guess

13C was when the quotas first went down significantly. Both pot fishermen and hook-and-line fishermen had to take some hard hits in order to contribute to the rebuilding and yet now only the hook-and-line fishermen are able to reap the benefits of that.

I think there are things that are social impacts and I think economic impacts that probably have not been quantified yet that will hopefully come out with this analysis with regard to the ability to access the fish in and around different closed areas as proposed in these different alternatives, trip costs that might be increased as a result of that. I think those are all things that would hopefully come out with this analysis.

DR. CRABTREE: Well, okay, I'm not sure I buy that the pot fishermen hadn't benefited from the recovery, because I don't think the entire increase in the quota has been caught up by hook-and-line fishermen.

If the rationale is that the fishery is shifting more to the hook-and-line fishermen and away from the pot guys and that is a concern, I don't see anything in the document that talks about that as a rationale.

If that is part of your rationale, then I think you have additional NEPA problems because I don't think you have a sufficient range of alternatives. You could easily put in place a sub-quota for the pot fishery and a sub-quota for the hook-and-line fishery. There are a lot of ways you could address that. You also just put in place a trip limit of 300 pounds and that will go into place June 1 on the hook-and-line guys; so that ought to correct or deal with some of that.

That is not part of the rationale. I saw some stuff about how the fishery has shifted a little bit among states and things; but again that is not part of the rationale in the document as far as I can tell now. If that is part of the rationale, then we need to rethink do we have a reasonable range of alternatives because there are lots of ways to address some of those things.

It is like if you're concern becomes they may not able to catch the entire ACL. Well, then I think, again, you have a NEPA problem because you don't have a reasonable range of alternatives. There are lots of ways to catch more fish besides just removing the closure. You could increase the trip limit. You could open and allow some more people to come in to the pot fishery.

Those are the things, Michelle, and I'm not saying any of the things you've said aren't the case; but I think there are just a lot of problems in terms that we need to get the rationale nailed down; because until we know what the rationale really is, it is hard to know whether we have a reasonable range of alternatives or not.

DR. DUVAL: So let's get back to the question at hand with regard to reconsidering the purpose and need and the language in there. Is there a desire on the part of the committee to modify the purpose and need? Jessica.

MS. McCAWLEY: Based on the discussion, I would say that I don't think the purpose needs to be modified, but I'm wondering if the need needs to be tweaked based on what Brian was saying. I'm thinking it is just a couple words here or there, but I'm not quite sure how to fix it.

MR. PHILLIPS: And I'm not so sure I want to run this rabbit trail, but I'm going to mention it just because Roy brought it up. We've talked about setting a hook-and-line sector allocation; and we're not going to get this done for the next season. That being said, do we want to – while we're fixing stuff; do we want to try to fix everything or do we want to look at that further down the road?

DR. DUVAL: I would say, please, let's look at that further down the road. Based on Brian's input and looking back at the previous decision document from the June meeting, which flipped the phrasing of the need and stated that the need was actually to minimize potential negative socio-economic impacts as opposed to increasing socio-economic benefits. Jessica.

MS. McCAWLEY: That is the kind of language I was looking for; that is the kind of change I was thinking about.

DR. DUVAL: So I think we would need a motion from the committee to make that change.

MS. McCAWLEY: I'd make a motion to add that language – I'll repeat it if we get it on the board.

DR. DUVAL: So a motion by Jessica; is there a second? Second by Jack. Let's let Brian get this up on the screen. Jessica, can you see that?

MS. McCAWLEY: The motion is to modify the need as follow: "The need for the amendment is to minimize potential negative socio-economic impacts to black sea bass pot endorsement holders while maintaining protection for ESA-listed whales in the South Atlantic Region."

DR. CRABTREE: Maybe someone can explain to me how is minimizing a potential negative socio-economic impact any different from increasing a socio-economic benefit. It seems to me it is the same thing. I think really think you've fundamentally have changed anything with that. It just seems a little more awkwardly worded to me.

MR. HAYMANS: My first thought to that is that you assume that there is potential negative impacts based on the actions that have already been taken; and so this is trying to minimize those assumed impacts versus increasing a socio-economic doesn't necessarily assume that there is negative impacts associated with the actions already taken. That is the way I read it.

DR. CRABTREE: Well, it does seem to me that if you assume that this closure is having an adverse socio-economic impact; that removing the closure then would provide socio-economic benefit. I think it is the same thing. I don't think it fundamentally changes where you say it; you're still going to have to have an economic analysis that shows that what you're doing actually accomplishes that, whether you call increasing benefits or reducing adverse impacts.

MR. BOWEN: Madam Chair, I completely agree with Roy. And to the next sentence, if we do anything in this amendment but status quo, we're not maintaining protection for the ESA-listed whales.

MR. CONKLIN: What if we wrote it that the need for the amendment is to restore historic socio-economic benefits to the endorsement holders while maintaining adequate protection for the whales.

DR. DUVAL: So Chris has got some proposed language for the purpose?

MR. CONKLIN: Yes; I was just wanting – no, for the need, but I was wanting to have a little discussion on it.

DR. DUVAL: Can you repeat that again, please, so we can also have it.

MR. CONKLIN: Yes, so the need for the amendment is to restore historic socio-economic benefits to black sea bass pot endorsement holders while maintaining adequate protection for ESA-listed whales in the South Atlantic Region.

DR. DUVAL: Okay, discussion on that particular language. We do have a motion on the floor; so I think if the committee wanted to do that; that would be, Chris, I think a substitute motion.

MS. McCAWLEY: Yes; I fine however you want to do it, whether you want to do a substitute motion or you want me to withdraw the motion that is on the table, either way.

MR. PHILLIPS: I'm happy with either one, but I like Jessica's wording. I would just take "potential" out; because if we didn't feel like there was negative socio-economic impacts now and we couldn't prove it with the document, then we're dead in the water. I would just take "potential" out of Jessica's wording; and I'm happy with that.

MS. McCAWLEY: Yes; but I would also agree with Zack and Chris that I think anything we're going to do is not necessarily going to maintain the same protection for right whales. That is why I like the language that Chris is suggesting whether that becomes the main motion or he is going to offer it as a substitute, whichever. I actually think I like that better.

MR. BOWEN: The word "adequate" definitely needs to be in there, in my opinion, "maintaining adequate protection".

DR. DUVAL: So the motion and the seconder – well, the committee, since we've had enough discussion about it, the committee would have to consent to withdraw the motion. Is there consent around the table to withdraw this motion in favor of another one? I'm seeing heads nod, yes, so the motion is withdrawn. Chris, would you like to offer up another motion?

MR. CONKLIN: Well, I was looking maybe for a little help from the group; so do you want kind of mix Jessica's first part and just put "adequate" at the end; is that what you are thinking?

DR. DUVAL; I think Jessica was saying that she liked the verbiage that you offered up, which was the need for the amendment is to restore historic socio-economic benefits to black sea bass pot endorsement holders while maintaining adequate for ESA-listed whales in the South Atlantic Region.

MR. CONLIN: Okay, I'll make that motion, then.

DR. DUVAL: So a motion by Chris and seconded by Jessica. Let's let Brian get this up on the board. Can folks take a look at the screen, please, and see if that works for you. The motion reads modify the need as follows: "The need for the amendment is to restore socio-economic benefits to black sea bass pot endorsement holders while maintaining adequate protection for ESA-listed whales in the South Atlantic Region." Monica.

MS. SMIT-BRUNELLO: I've just got a question for Zack. What was your idea on the reason you wanted to make sure that the word "adequate" was used?

MR. BOWEN: I just feel like something needs to be stated in there to show that we want protection for the whales.

MR. BELL: I understand what Zack is trying to do, but I think we can't make the determination of what is adequate and what is not adequate. I think if you just have "maintaining protection", there will be protection and someone else – I mean, it is not for us to kind of get into the adequate aspect. Protection is protection.

MS. McCAWLEY: I think what Zack is trying to say is that any change that we make which changes the baseline from the complete closure is not necessarily maintaining the same level of protection for the whales. I think that he is adding the word "adequate" so it is indicated that we understand that our removing the closure or modifications to the closure is not the same level of protection, but we still believe it to be whatever alternative we choose adequate protection for the whales.

MR. BOWEN: I wish I could have said that; that is dead on the money. Also, with the alternatives in here with the weak links and the ropes, you never know what we're going to come up with for the protection of the whales. As I said, if we do anything in this amendment but status quo, then the chances of whale entanglement definitely increase.

DR. DUVAL: Monica, and then I'd like to go ahead and move us towards a vote.

MS. SMIT-BRUNELLO: I just think the word "adequate" could open up a whole can of worms that you may not want to open up. I agree with what Mel was saying; so if you take out "adequate", you're saying really the same thing in terms of the level of protection or the amount of protection like Jessica said; so I think I would advise you to just take that word out; and I think that will give the council a little more flexibility.

DR. DUVAL: Okay, a recommendation from the attorney, which is always good to obey. Doug.

MR. HAYMANS: And I do not like the wordsmithing process; and I apologize, but what if it read "while providing protection", because the maintaining part is we're going to maintain the current level. The "adequate" says, well, we're not really going to maintain the current level, but we realize we want protection. If you provide protection, you've flattened it out.

DR. DUVAL: So if we take out the word "adequate" and replace the word –

MR. HAYMANS: And maintaining.

DR. DUVAL: – "maintaining" with "while providing", right?

MR. HAYMANS: Right.

MR COX: I think we're increasing protection for the whales through all these things that we're talking about doing.

DR. DUVAL: We're not going there. Zack.

MR. BOWEN: In this amendment how are we providing protection? In any of those alternatives that I'm reading or have read, if we do anything but status quo, how are we providing protection for the whales; can somebody answer that?

MR. PHILLIPS: Zack, we're providing protection because we're still going to be using the weak links that everybody else is using. We may even go above that in some of the options; so we're still going to have protection. We're probably going to have some of the area closed, if not all of the area closed, so we will still be providing protection for the whales.

If we weren't going to provide protection of the whales, there would be no weak links, any kind of rope you wanted to use, stuff like that. We're still going to be providing protection, but the level of protection is something that is going to be argued whether what we do is a negligible possible increase, say like the conch traps up north or something that I think fell under that category. We don't get to make that judgment call, but, yes, we are definitely still protecting whales.

DR. DUVAL: I think we should go ahead and comply with Monica's suggestion to remove the word "adequate" from there. I see heads nodding around the table. Now, would like the word "maintaining" or "providing"?

MR. HAYMANS: Or just "while protecting".

DR. DUVAL: "While protecting"? Okay, if we did that it would read, it would read modify the need as follows: "The need for the amendment is to restore socio-economic benefits to black sea bass pot endorsement holders while protecting ESA-listed whales in the South Atlantic Region." How do folks like that? Chris.

MR. CONKLIN: Our friend from the Gulf, Mr. Kevin, over here offered up "while complying with the protection requirements for the ESA".

DR. DUVAL: "While complying with protection required under the ESA"?

MR. CONKLIN: Requirements.

DR. DUVAL: "While complying with protection requirements for ESA-listed whales in the South Atlantic Region". How about some comments on that? Ben.

MR. HARTIG: I just think we have to be very careful. We've already painted ourselves inadvertently into a box that none of knew that we were going to be in; and that is very, very tough for me to try and deal with as we move through this amendment process. As we add these words and how they impact ESA and things and how they're going to be analyzed, we're not going to know basically.

I don't know how we can know exactly after what we just went through when we made a closure and all of a sudden that becomes the baseline for any further analysis of right whale interactions. I just think we need to be careful that we don't paint ourselves farther into a box by using a word that may do. I don't know how to get out of it.

DR. DUVAL: So, Ben, do you want to see a different word other than "protecting" there?

MR. HARTIG: Well, I thought providing protection to me was a little better, but maybe not.

DR. DUVAL: Mel and then Anna and then we are going to wrap this up and move on.

MR. BELL: To that point, what we're really doing is we're wanting to achieve this; and all we're doing is in trying to come up with this, we're considering the importance of maintaining protection. That is all we're doing; we're trying to come up with an option hopefully that provides the best we can offer in considering the need for protecting these animals. That is all we're doing; so it is not that we're protecting them or we're providing adequate protection. We're just making a decision to offer hopefully an alternative that considers the need and the importance to protect them; and that's all we're doing.

MS. BECKWITH: I liked the original minimize potential negative socio-economic impacts because we are not in fact restoring socio-economic impacts to the pot endorsement holders, because the pot endorsement holders came after the fact. Since we have now a significantly smaller group of people fish in this fishery, there is no way we're restoring their economic benefit. We should be minimizing their economic detriment; but I don't think we're restoring. That is just my opinion.

DR. DUVAL: Jessica, you look like you want to say something.

MS. McCAWLEY: In considering what Anna and Mel just put forward, I would agree. I like the word adding the word "considering"; but in Anna's comment that we're restoring these

benefits to these endorsement holders because of when the endorsement program was put in place, maybe we need to go back to some modification of the motion that we withdrew.

DR. CRABTREE: I had kind of the same thought as Anna. I think restore is kind of a problem because it does imply you're restoring it back to something that once existed. It is not clear to me what we're restoring it to; so I think generally increase is better. In fact, generally I think the need that is in the document right now is better than anything that we've put up there.

DR. DUVAL: All right, what is your pleasure; do you want to go back to the need for the amendment is to minimize socio-economic impacts to black sea bass pot endorsement holders while providing protection or while protecting, while maintaining protection for ESA-listed whales? Ben.

MR. HARTIG: I just think if we maintain protection for ESA whales in the South Atlantic, we're dead in the water. There is no way we can move forward. If we provide protection, I think we can do it; but maintaining we can't; because if we maintain it at no traps in the water, you can't move forward with anything.

MS. McCAWLEY: Let me try to offer a substitute motion; so modify the need as follows: "The need for the amendment is to minimize potential negative socio-economic impacts to the black sea bass endorsement holders while considering ESA-listed right whales in the South Atlantic Region."

DR. DUVAL: So Jessica has offered a substitute motion to modify the need as follows: "The need for the amendment is to minimize socio-economic impacts to black sea bass pot endorsement holders while – was it protecting or providing protection?

MS. McCAWLEY: Considering ESA-listed right whales in the South Atlantic Region.

DR. DUVAL: So there is a substitute motion that has been offered; is there a second to that? Seconded by Charlie. Discussion? Mel.

MR. BELL: Or you could say "considering the need for protection". You're considering the whales but you're considering the need for protecting the whales. You just want to be more – we're into the weeds of wordsmithing, I know, but that was just a suggestion.

MS. McCAWLEY: Sure, if you want to wordsmith it and add that in there, I'm fine with that.

DR. DUVAL: So considering the need for protecting ESA-listed whales. Here is what the substitute motion reads: "modify the need as follows: The need for the amendment is to minimize socio-economic impacts to black sea bass pot endorsement holders while considering the need for protecting ESA-listed whales in the South Atlantic Region." My inner English teacher is a little bit offended. How about "while considering the need to protect ESA-listed whales".

The substitute motion reads: "Modify the need as follows: The need for the amendment is to minimize socio-economic impacts to black sea bass pot endorsement holders while considering the need to protect ESA-listed whales in the South Atlantic Region." Have we had enough discussion? Can I please see a show of hands of those in favor of the motion – I count nine in favor – those opposed. The motion passes with nine in favor and two opposed.

This now becomes the main motion. We need one more time. Can I please see a show of hands of those in favor of the main motion, nine in favor; those opposed, two opposed. Okay, I'm now going to ask Brian to walk us through the different alternatives in the document; and then my goal here would be for us to select a preferred alternative and approve this for public hearings.

DR. CHEUVRONT: Okay, we've got eight alternatives here; and the eighth alternative has two subalternatives that were created at the direction of the council from the last June meeting. Alternative is the no action alternative, which is to leave the closure in place from November 1 through April 30th.

Alternative 2 completely removes the closure so that the black sea bass pot fishery would remain open all year long. Alternative 3 would close only the northern right whale critical habitat area from November 15th through April 15th. I'm going through the different alternatives that are listed here in the decision document; so Alternative 4 is PDF Page 9. Alternative 4 is based on northern right whale likely calving habitat that has been based on research and would close that area from November 1 through April 30th.

On Page 10 is Alternative 5; and that would propose closures based on the northern right whale sightings of where they occur in 25 meter depths or shallower. This captures about 97 to 99 percent of all northern right whale sightings. That closure would be in place from November 1 through April 30th.

On Page 12 you have Alternative 6; and this is based on comments that were received from NGOs and based on the petition for critical habitat in 2009 and calving habitat from literature off of Georgia and Florida; and then a 30 nautical closure off of North and South Carolina. This would be closed from November 1 through April 30th.

Alternative 7 is on PDF Page 15; and that is based on some NGO recommendations on the Notice of Intent that was filed for the closed area from November 1 through April 30th. Then Alternative 8; and what you need to do for Alternative 8 is first you need to decide whether you want to accept the IPT-recommended language for the alternative and subalternatives or whether you want to go with something else.

This was based on the direction from the council last June to develop an alternative that was based on what existed for Alternative 3, which was simply the critical habitat area which was off Georgia and Florida, and add to it the proposed closure that had been in Alternative 8, which was simply a closure off the states of North and South Carolina from November 1 through December 15th and March 15th through April 30th.

What the IPT came up with is two subalternatives that look at that. The first one, Subalternative 8A, would basically have a closure from November 1 through December 15th and then again from March 15th through April 30th. If you look at it, there was a map that was associated with each of these alternatives. The area that we're talking about for this alternative; that map occurs on Page 20. Then Subalternative 8B looks at a closure off of North and South Carolina from November 1 through December 15th and from March 15th through April 30th.

However, for the area off of Georgia and Florida the black sea bass pot closure would apply annually from November 15th through April 15th. That is the recommended language that you have in the document from the IPT. Essentially what we're talking about here with these closed areas, it is the northern right whale critical habitat area that are off of Florida and Georgia. North of there it would basically be a 25 meter depth towards the shoreline following the contour. I think the first thing you need to do is decide what you want to do about Alternative 8 and then maybe have the discussion of these alternatives or anything else that you'd like to see.

DR. DUVAL: So right now we'd be looking for a motion to accept the IPT's proposed changes.

MR. HAYMANS: Can I ask a question first? Brian, the note on the bottom of Page 17 regarding 8 and the states would be asked to implement compatible regulations through the portion of the area within state waters –

DR. CHEUVRONT: I will address that and thank you for bringing it up because I should have mentioned that. The federal regulations will only apply to the EEZ; but the contour lines that we have got there it looks at state waters as well. Well, this council cannot make regulations that are going to affect state waters.

Usually we ask for concurrence; so that's probably what would have to happen in this case; that if the council – and this exists with all of the Alternatives 3 through 8 where they are looking at having at least partial closures. The states would be asked to enact closures in state waters to black sea bass pots that would run concurrently with any of the closures that are considered in any of these alternatives.

Nick, I need your help here because we had a discussion on an IPT call where we talked about this issue; and I believe you looked quickly – and it was like less than 1 percent of black sea bass pot landings came from state waters; is that correct?

DR. FARMER: Yes; that is correct. We have the SEFSC commercial ACL dataset, which provides the dealer information and that has jurisdiction assigned to it; and we can look at state versus federal, international and other waters. I think it was 0.7 percent of the landings coming from state waters based on that dealer reporting.

DR. DUVAL: Is that clear for you, Doug? That particular note is included I think underneath each of the other previous alternatives just for state concurrence. Jessica.

MS. McCAWLEY: I move to accept the IPT wording in the alternatives.

DR. DUVAL: Do you mean for Alternative 8?

MS. McCAWLEY: Don't we need to accept it for all of them?

DR. CHEUVRONT: You have accepted it for – you have the wording that you accepted in June for Alternatives 1 through 7; so we were only directed to develop some wording for Alternative 8.

MS. McCAWLEY: So, yes, Madam Chair, only for Alternative 8.

DR. DUVAL: Seconded by Charlie. Let's let Brian get this up on the board. **The motion reads accept the IPT's wording for Alternative 8 and the Subalternatives 8A and 8B:**

Alternative 8. The black sea bass pot closure applies to the area currently designated as North Atlantic right whale critical habitat, in addition to waters inshore of points 1-29 listed below (Table 2.1.5), approximately North of the Altamaha River, Georgia, to Cape Hatteras, North Carolina (Figure 2.1.6).

Sub-alternative 8a. The black sea bass pot closure applies to the area annually from November 1 through December 15 and March 15 through April 30.

Sub-alternative 8b. For the area off North Carolina and South Carolina, the black sea bass pot closure applies annually from November 1 through December 15 and March 15 through April 30. For the area off Georgia and Florida, the black sea bass pot closure applies annually from November 15 through April 15.

Okay, any discussion on the motion? Any objection to the motion? Seeing none; that motion stands approved. Charlie.

MR. PHILLIPS: Madam Chair, I believe Brian has got a couple of more options in his computer that we can look at.

DR. DUVAL: There are a couple of options that it sounds like the committee might want to offer up as additional alternatives to be considered in the document. Doug.

MR. HAYMANS: If we made a set of regulations that were specific or that considered a closed area such as the current critical habitat and that critical habitat changed over time; how does that affect the regulations that we put in place now? In other words, if we selected Alternative 3, which is current critical habitat, and then over time Protected Resources changes critical habitat, those regulations apply to the new critical habitat, right?

DR. DUVAL: The way that alternative is structured, the critical habitat as it is currently designated in that area wouldn't change. That is the way that alternative is structured.

MR. HAYMANS: So then the question to Monica is if it changes; what does that do?

MS. SMIT-BRUNELLO: I think what you're asking is if critical habitat boundaries change and get redesignated as to something different than what is currently in place, how does that change your alternative. I think it depends on how you structure your document. If you structure it such that here is the boundary now; however, if the Fisheries Service adopts new critical habitat boundaries, then this boundary will change – well, it just depends how you structure your document. You can accommodate that.

Let me just pause myself and just tell you that there is litigation over the critical habitat boundaries, right, and not designating new boundaries. I believe that – and this is public record now -- the parties have agreed or the Service has agreed to put out a proposed rule designating new critical habitat boundaries are different by I think the middle of February, February 17th or something of 2015. You're going to have that information before you take final action on this document.

Now that doesn't mean that the final rule will be out in time, but I think you'll have a good sense of what kind of new boundaries may be out there for you to consider. Now, going back to your original question; if you want to structure the document such that if the critical habitat boundary changes, then this version of the closure, whatever you have, your alternative will change along with that new designation, you could do that.

I'm not quite sure how you analyze something forward-looking that doesn't exist now. That is a little difficult. You'll have a good idea by the time the proposed rule gets out; but, remember, rulemaking considers public comment so it is possible that a final rule for critical habitat would take into account necessarily public comment; so the final rule may designate something different than what is in the proposed rule.

DR. DUVAL: Does that answer your question, Doug? I'm going to suggest that we take a quick ten-minute break. We've been at this for a little while. We'll let Brian pull the alternatives up and then we're going to come back here. Once we finish our discussion with this amendment, I'm going to flip the order of the catch card presentation and Regulatory Amendment 22 in our agenda because we have a staff member here; and I am respectful of his schedule. All right, there have been a couple new alternatives put together by some committee members for folks' consideration. I am going to ask Brian if he can go ahead and kind of run us through those.

DR. CHEUVRONT: Okay, I was approached this morning with a couple of additional alternatives that some council members thought they would like to have the council to consider. The first one is Alternative 9, which is exactly the same as Alternative 8 except that the depth contour not 25 meters but 20 meters. That is really the only difference; the same subalternatives. I struck out the reference points and the table and figure references because they'll have to all be new for such an alternative if you would like to consider this.

The idea then being that a new map would have to be drawn and Points 1 through 29 would invariably be different because they would be following a different depth contour, essentially. As I was not the designer of this alternative, I don't know who was, but you might want to have some discussion about it.

MR. COX: Yes; this is getting in line with what we were trying to do here. Alternative 9A we want to make the back end of the time series there would be February 15th through April the 30th. What that does is it allows those small whales coming through – and what we want to do here during that time period is we will stay outside of the 20 meter area.

MS. McCAWLEY: I think that maybe the top paragraph is missing something. I don't see the 20 meters up there.

DR. CHEUVRONT: It was not in Alternative 8 either. It is in the note that is down here on the bottom. It says what the area represents; and so it is the North Atlantic right whale critical habitat in the South Atlantic Region that was designed in 1994; and off North and South Carolina the black sea bass pot closures apply in the EEZ in waters shallower than 20 meters. There is a similar note under Alternative 8 that says 25 meters.

DR. DUVAL: Is that clear to folks. Jack, did you want to say something else about that?

MR. COX: Well, not exactly, but on that Alternative 9A I did want to change something in that. On that front end from November 1st to December 15th, we would like to take that out because those fish are stronger than at an earlier time. They're not coming back through with their calves, plus we're going to be in certain measures – we're going to change the 600-pound weak link to the 400-pound weak link and we're going to change the rope to 2,200 pounds breaking strength.

DR. DUVAL: Do you plan to add another alternative that would consider gear modifications?

MR. COX: Yes.

DR. DUVAL: Alternative 10, okay. I just want to make sure that everything is clear with regard to how this new alternative is structured, what the time frame is and the rationale for doing so. If you include this new alternative and then we also review this next Alternative 10 that has some proposed gear modifications; then what I am assuming is that it would be your intent to select not just one but perhaps two preferred alternatives; one dealing with gear modifications and one dealing with time/area closures.

I want to make sure everyone has had a chance to look at this new alternative. It is structured based on Alternative 8 and its subalternatives and would apply to the existing North Atlantic right whale critical habitat. What Subalternative 9A would do is apply a closure to the entire area annually from February through April 30th. That is what I'm getting at is like this looks like – we have two different time frames in here for the two different subalternatives; so, Jack, was your intent to have a similar time frame for both alternatives?

MR. COX: Well, we want two alternatives, but what I'm trying to do here is during that time period that we're fishing – that we won't be fishing inside of the 20 meter depth.

DR. DUVAL: So it seems to me that you want to have the same time frame in both subalternatives because Subalternative 9A says the closure applies to the area annually from

February 15th through April 30th; so that would apply to both the designated right whale critical habitat as well as the areas inshore of 20 meters throughout the Carolinas, but Subalternative 9b does not have the closure applying off the Carolinas only from February 15th through April 30th. It includes November 1 through December 15th and March 15th through April 30th inshore of 20 nautical miles. Do you understand what I'm getting at? Anna.

MS. BECKWITH: I think Jack's intention was the original for the closure for the critical habitat; and then off of North Carolina and Georgia his intent was to not be allowed to fish inside of 20 meters from February 15th through April 30th with the understanding that would cover all of the calf/adult sightings that have been off of our waters; but that the critical habitat closure would have those original dates that we discussed in Alternative 8.

DR. CHEUVRONT: Just to make sure I understand; what you really want me to do is in Subalternative 9B, change November 1 through December 15th and March – just change that all to the word "February". Then under 9A put the original language back.

MR. HARTIG: Michelle, what happens in Florida in these; that is what I'm trying to figure out.

DR. DUVAL: That is why I asking the questions I was with regard to the time frame over which this would apply. Similar to Subalternative 8A, with this alternative, the black sea bass pot closure would apply annually to both the designed right whale critical habitat area, which is off northern Florida and Georgia, and the Carolinas only from November 1st through December 15 and March 15th through April 30th.

With Subalternative 9B the closure would apply off the Carolinas from February 15th through April 30th and for the right whale critical habitat off Georgia and Florida it would apply annually from November 15th through April 15th; so the same as it is currently in 8B. The difference here is that with this alternative, for the Carolinas it would be inshore of 20 meters. Does everybody understand that?

MR. BOWEN: Madam Chair, it is there any way we can blow that up? It's just hard for me to see it the way the angle is on the screen.

DR. CHEUVRONT: Zack, I can do that. The thing is that you're not going to be able to see the entire alternative and subalternatives all at one time.

MR. BOWEN: Okay, I'll move over there while we're going through this. Then Monica referred to the critical habitat as that may be changing, I guess, the geographical locations of that.

DR. DUVAL: The way we have structured the alternatives in this document that referred to the existing North Atlantic right whale critical habitat is that it would be that area and remain unchanged even if the critical habitat changes; so this would apply to the area that is currently designed as North Atlantic right whale critical habitat when we're referring to that. That is exactly how Alternative 3 is structured.

MR. BOWEN: And whatever we decide on these alternatives; that would not change even though the critical habitat is now may change?

DR. DUVAL: That is correct. Anna.

MS. BECKWITH: Is it worth keeping 8A and 9A? I think it is probably unrealistic that we're going to achieve potting within the critical habitat during December 15th through March 15th; so if that is the result of choosing that alternative, it is likely not one that we're going to choose within the critical habitat; so is it worth making Brian analyze it?

DR. DUVAL: Does everybody understand what Anna is saying? Alternative 8A and Alternative 9A would allow for a fishery to occur within the North Atlantic right whale critical habitat between December 15th and March 15th; and is that really realistic? What I would like to do is have Brian go through the next proposed alternative and then I think we can have a discussion and potentially a motion to accept these new alternatives for analysis. If you want to remove 8A and 9A, perhaps we can do that separately. Brian, can you just run through the next proposed alternative.

DR. CHEUVRONT: Okay, we were given another alternative. Alternative 10 was to specify a buoy line strength less than or equal to 2,200 pounds and a weak link less than or equal to 400 pounds for black sea bass pots in the South Atlantic EEZ.

DR. DUVAL: If someone could please elaborate on the inclusion of this alternative for the committee, that would be great.

MR. COX: In talking with the whale team, we had a discussion about right now we have to use a 600-pound weak link. The 400-pound weak link and the 2,200 pound breaking strength of the rope; what it does is if those small calves are coming back through, it gives them some added protection.

DR. DUVAL: Isn't the requirement already that the vertical line breaking strengths be less or equal to 2,200 pounds; but that is only in the southeast restricted area north?

MR. COX: I want to say it is for our – it seems like it is for the offshore – there was an offshore depth contour where we had to increase that rope breaking strength. Tom, you may have to help me on this one.

DR. DUVAL: I was just going to ask Barb, because I remember from the presentation that she gave in protected resources going through a southeast restricted area north be different – she had a slide in her presentation that noted the different weak link and vertical line breaking strengths in state waters versus federal waters. I guess that is what I was looking at is the federal waters.

MR. COX: Right, for the federal waters; that is what she stated.

DR. DUVAL: Right, so for federal waters effective November 1st in that area is weak links less than or equal to 600 pounds and a vertical line breaking strength of less than or equal to 2,200

pounds. I guess the point I was just trying to make is don't you already have to have a breaking line strength of less than or equal to 2,200 pounds right now? Not in North Carolina is what I'm hearing. Okay, thank you. Monica.

MS. SMIT-BRUNELLO: Your Action 1 is entitled "Modify the November 1 through April 30th prohibition on the use of black sea bass pot gear"; so instead of Alternative 10 being Alternative 10, shouldn't be under like a different action, Action 2?

DR. DUVAL: Yes; this would be a separate action because all of the actions currently in here deal with seasonal closures; so, yes, that makes sense. Mel.

MR. BELL: Related to improving gear, let's say, is there or is there not a marking requirement, because I'm told that the lines are marked now in accordance with some standard. I know that was brought up yesterday that there was resistance to marking, perhaps, but marking would be another added feature, I would think, if it doesn't exist that would be attractive. I just need some clarification on that about whether marking actually is occurring now or not.

DR. DUVAL: Marking is actually occurring now; it is required. My understanding is that the new vertical line rule requires that the lines be marked in three places. I think the top, the bottom and the middle; is that not correct, Barb, and that they be 12 inches long, I think.

MS. ZOODSMA: I don't recall; that sounds right. I don't know the specifics but that sounds right, and, yes, the new rule required that.

MS. SMIT-BRUNELLO: Just a question to Barb; are they marked differently for each fishery or there is no requirement for that; it is just all one universal marking?

MS. ZOODSMA: Yes; it is not different by fishery. That would be ideal, but it is not by fishery.

MR. BELL: Well, to that, then, would there advantage in – and I don't know if it is a color thing – would there be an advantage in requiring a specific color or specific marking related to the black sea bass fishery, which would definitely improve the ability to track any interactions with gear.

DR. DUVAL: It is my understanding that there are different colors that are required for different fisheries or groups or regions.

MS. ZOODSMA: Yes, it is different areas.

DR. DUVAL: I think the point is that there is different colors – different line-marking requirements are – let me start over again. Different colors are required in different regions for line marking presumably so that you would be able to tell exactly where a particular piece of gear might be coming from. Charlie.

MR. PHILLIPS: Okay, so somebody with a blue crab trap off of Georgia would have the exact same markings as somebody with a black sea bass trap off of Georgia, so you couldn't tell the two fisheries apart but you could tell the region from, say, Virginia or something?

MS. ZOODSMA: Yes, you wouldn't be able to tell the difference between a blue crab trap and another trap pot fishery, yes.

MR. BELL: I personally think it would be advantageous to be able to identify a sea bass trap line from a crab trap line; so if we wanted require some additional – I don't know; let's say it is blue or whatever, it is a 12-inch blue color or whatever we're using now, you could require the addition of a white band or something on there to just distinguish from a crab trap. Considering the number of crab traps that are potentially in the water, it might be nice to be able to distinguish between them. Just a thought.

DR. DUVAL; I was going to ask Tom Burgess, who is a former council member and existing right whale take reduction team member and black sea bass pot fisherman, if he could come up here and, Tom, can you tell us how you mark your lines right now.

MR. BURGESS: Thank you, Michelle. At this time we are required to have three marks, as you had said, in our lines, top, middle and bottom, 12 inches long, and that is an orange mark. That is consistent through the Mid-Atlantic and the South Atlantic trap/pot fisheries. Now, with the new vertical rule, I don't have the colors in front of me, but I think there is a color for the state waters in Florida; is that correct, Barb?

I think the black sea bass pots off of Florida are consistent with my colors seeing at they're in the South Atlantic. I'm not sure about the state waters in Georgia or South Carolina. I couldn't remember if they changed or not, but they did make some changes in the colors to identify these different fisheries in these different regions.

MS. ZOODSMA: Within the southeast restricted area, that blue are that I illustrated yesterday, within state waters orange and blue marks are required; and then in offshore or federal waters it is green and orange. Off North Carolina I think it is orange for the southern nearshore trap/pot waters.

MR. HAYMANS: But I will say this, and I haven't talked to Mel about South Carolina, but the regulations also require that the gear had to be brought in, which essentially ended any offshore crab/pot fishery in Georgia. They're not out there anymore; so if there is a line out there illegally, it is not going to be marked by colors.

MR. BELL: They can be out there; they just have to take them back at the end of the day.

MR. HAYMANS: But the fishery can't be prosecuted on a 12-hour shift.

MR. BELL: No, not like it is now.

MR. HAYMANS: So they just quit going.

DR. DUVAL: Given that there are new existing color requirements that are coming on line that were effective November 1st but our pots are currently out of the water right now, it seems to me like it might be a little bit sticky to try to impose an additional color scheme at this point. We've got a couple of new alternatives that have been proposed or a new action and a new alternative. I would really just like to get the committee's concurrence as to whether or not you want these included in the document before we go down a rabbit hole of new line-marking requirements. Brian, if you can scroll back up to Alternative 9 – Jack.

MR. COX: Yes; I was going to say let's remove Subalternative 9A.

DR. DUVAL: So, really, there would be no subalternative; it would just be Alternative 9.

MR. COX: Correct.

DR. DUVAL: I just want to make sure everybody understands this; that the pot closure would apply to the area currently designated as the right whale critical habitat; and then off the Carolinas it would apply from 20 meters inshore annually from February 15th through April 30th; and for the right whale critical habitat area, it would apply annually from November 15th through April 15th.

MR. HARTIG: And the rationale for this is?

DR. DUVAL: Jack, would you like to go through that again? Do you mean for removing a subalternative or for including this in there in the first place?

MR. HARTIG: What is the rationale for having this shorter time period?

DR. DUVAL: No; this is a longer time period than what is in Alternative 8; February 15th through April 30th. In Alternative 8 it is March 15th through April 30th; so this extends that time period by one month. Okay, I would be looking for a motion to accept inclusion of new Alternative 9 and then also new Action 2 into the document. Jack.

MR. COX: Sure, I'll make the motion. I make the motion that we add Alternative 9 into the possible new alternatives.

DR. DUVAL: There is a motion by Jack; is there a second? Second by Chris. Further discussion?

MR. BELL: Just to belabor this; Tom didn't really have a problem with it, but I still think there is value in adding some distinguishing feature to the marking, which could be as simple as a simple white piece of tape or something.

DR. DUVAL: We're just dealing with new Alternative 9 right now. **Okay, seeing no other discussion; is there any opposition to this motion? Seeing none; that motion stands approved.** Let's move on to Action 2.

New Action 2 pertains to gear modifications. Alternative 1 would be status quo; and Alternative 2 would be to specify buoy line strength less than or equal to 2,200 pounds and a weak link less than or equal to 400 pounds for black sea bass pots in the South Atlantic EEZ. I'd be looking for a motion from the committee to add this new action to the document. Jack.

MR. COX: Yes; I would add the action here to the document. Definitely the marking-line requirement needs to be put in there because we're –

DR. DUVAL: This is gear modification. I'm just looking for a motion to include a new action pertaining to gear modification; and we have this right here with two alternatives talking about the breaking line strength and the weak link. If you want to add another alternative that deals with line marking, let's talk about that. Charlie.

MR. PHILLIPS: I think if Jack hasn't started his motion, I will make the motion that we add new Action 2 with a subalternative of line making with a possible subalternative of additional line marking and maybe a subalternative of no line marking.

DR. DUVAL: I'm really confused, Charlie, because we have a possible new action up here on the screen where you have an alternative of status quo is no action Alternative 1. Alternative 2 deals with buoy line strength; and Alternative 3, if you want to add that, would deal with line marking. I don't think you need subalternatives. It would just be those are alternatives.

MR. PHILLIPS: Then I make a motion that we add Action 2.

DR. DUVAL: There is a motion by Charlie to add new Action 2; is there a second? Seconded by Mel. Discussion? Ben.

MR. HARTIG: Second.

DR. DUVAL: So right now Alternative 3 up there as line-marking requirements; that is just a placeholder. If you want to put something in there, you need to develop an alternative. Mel.

MR. BELL: The way I would recommend doing this is just taking the wording in Alternative 2, because you still want that to be in place, and just add the line marking. That way you'll have one with line marking and one without.

DR. DUVAL: You can still choose two preferred alternatives under this action; so if you had one dealing with line marking and one dealing with breaking strength and weak links, you can do that. I think the point is what do you want those line markings to look like?

MR. COX: I would mark it with orange.

MS. BECKWITH: It is already required.

DR. DUVAL: Here is what I'm going to suggest in the interest of time and my patience. If you would like to add this new action, let's go ahead and vote on that. I would recommend that you all have some discussion before full council about what you would want those line-marking requirements to look like. Doug.

MR. HAYMANS: And I forwarded to Mike to forward to everybody the current line-marking requirements from the southeast, so we all should have that shortly.

DR. DUVAL: And that was also a link that was provided by Kari in the protected resources overview as well. Okay, any other discussion on adding an action for gear modifications to this amendment? **Is there any objection? Seeing none; that motion stands approved.**

I'm going to suggest it may be difficult to select a preferred alternative right now just given that we don't know – I mean, the sense I'm getting around the table from the committee is that you may want to consider Alternative 9 as a preferred alternative, but you're not going to be able to select anything with regard to gear requirements. What is your pleasure; would you like to select a preferred alternative right now with regard to season closures? If so, let's move on it.

MR. HARTIG: Do you want to wait until full council to do that?

DR. DUVAL: Let's wait until full council. Okay, is there anything else under this regulatory amendment, Brian, that we need to discuss at this point?

DR. CHEUVRONT: The only other thing I might ask you to consider is that you adopted the IPT's wording for Alternative 8 and subalternatives. You got rid of Subalternative 9A; and you had a rationale for doing that; that you did not want to allow fishing to occur in the critical habitat area at all at any time.

It would seem to me that you need to revisit your rationale for getting rid of 9A as you considered it and applying it to 8A as well. If you wanted to do that; that would be fine. If not, it just seems to make sense to me that you would be consistent across those two alternatives since really the only difference in those alternatives is the time period and the depth contour.

MS. BECKWITH: You have already analyzed 8A, correct?

DR. CHEUVRONT: Well, the biologists have, but, yes, that has sort of been done. The other thing you can consider is if there are any alternatives in here that you know you're not going to consider, it is always a nice thing to remove them because there is still additional analysis that needs to be done here. You've got lots of alternatives in this action; and if you know there are some that you simply are not going to consider and get can get rid of this; it is okay to say let's put them in the considered by rejected appendix. That will make everybody's life easier on the analysis side.

MS. BECKWITH: Can we chew on that until full council?

DR. CHEUVRONT: Sure.

DR. DUVAL: Okay, so we're going to think about Alternative 8A, whether or not you want to remove that and other alternatives that you might want to move to the considered but rejected appendix; and you are going to come back with some fleshed-out alternative for line-marking requirements. Everybody cool! All right, moving on, we will wait to approve this for public hearings until we get to full council.

The next item on our agenda was actually Regulatory Amendment 22, but I'm going to flip the order of this and instead we're going to deal with Agenda Item 10, which is Snapper Grouper Amendment 22. This is our tags to track harvest. If you recall, the last time we discussed this in September, we wrapped ourselves around the axle on a tag program. I had suggested that it might be helpful for the committee to hear a brief presentation from Doug Mumford of our staff here in North Carolina regarding the Catch Card Program that has been utilized to track harvest of HMS species. Doug is here and I promise he will be entertaining.

MR. MUMFORD: I listened to your conversations a little earlier about the whales and ESA; and I have to admit you are a pretty tough crowd. You've got me a little nervous. My name is Doug Mumford and I work with the Division of Marine Fisheries. I am going to talk to you today about catch cards. We use catch cards in North Carolina to monitor Atlantic bluefin tuna and billfish catches, rare event species.

We developed this program back in the mid-nineties. The reason we developed it is probably some of you can remember that we had a very robust bluefin tuna fishery develop in North Carolina in the mid-nineties; and we weren't sampling at that time. It developed in January and February and there was no monitoring that was going on.

NOAA heard about it; people were literally catching fifty to a hundred fish a day; and we weren't monitoring that catch because January and February weren't times when we sampled. We met with NOAA; and what we decided to do was to extend our regular survey sampling, the regular MRFSS, in somewhat of a hybrid mode by using captains to contact but doing dockside sampling MRFSS style. We started that in 1996.

Well, we did that the first year; and the result was we got an estimate and the expanded data, the catch was too high and the season closed. Nobody was happy because they were making lots of money off those tuna catches at the time. Well, the next year I said I'm going to fix this. I said if I can get enough people in the field, we can surely get a good catch rate and get a good estimate of catch. At this time the tunas were being monitored with a quota.

I guess they call them ACLs now, but a quota by any other name is a quota. Well, the next year I literally had two or three people in Hatteras – and that is the only place the catch was going on at that time. It is a pretty small village. I had people on the docks every day. When it came time to expand the catch based on effort, once again the quota was blown and the season closed.

People were especially angry at this because they had seen us on the dock every day and the expansion factor came up to be something like four times. They wanted to know how many fish we had seen and then how much they expanded it. People were getting educated on the process.

They were actually so upset about it; that they brought Senator Lauch Faircloth into the picture; and we wound up in Washington, D.C. talking about tunas.

They wanted something done real quick. All this led to a carcass-tagging program. Now, the way we came up with the program was very simple. We met with a few captains and some people participating in the fishery; and we started talking about things like deer and bear and turkeys. Folks said, "Look, Wildlife has been counting these things for years and years and years. Why can't we count them the same way?"

We talked about, well, fish are different and all that; but they said, "No, it is not that much difference." As it turns out, we decided to modify that kind of system where each animal had to be recorded and it had to be tagged. NOAA actually had made this a rule after we put this program together.

The way we did this – and we did this with the help of the captains because it wouldn't have worked. At this time it was mainly a for-hire fishery. It wouldn't have worked if the captains hadn't been involved as well. What we did was to establish reporting stations. These are marinas and locations that people on their way on a fishing trip they'll have to pass by one of these places.

Part of the other rule is only a fish that has a tag in it for tuna or marlin can be removed from the vessel. The only way you can get a tag is to fill out a catch card; and the catch card is how we're able to provide weekly summaries, even daily summaries of the catch by having our staff in the field go by the reporting stations as often as needed.

Another point that I need to make here is that after we initiated the tagging program, we never busted quota and we never had to shut down a fishery and gained a great deal of support in that regard. I wanted to show you where our catch card reporting stations are because there is something you need to understand here.

The way I labeled this map, if you'll notice the labels like Masonboro Inlet, New Inlet, Bogue Inlet, Beaufort Inlet; that is where our reporting stations are. In North Carolina the only way you can get to the ocean is through an inlet; so you need to have those reporting stations close by an inlet. If it was hard to do, people are not going to go out of their way to do this.

NOAA has tried call-in reporting for bluefins and such and it never really worked that well. I think the best compliance they ever got with fish that they had actually looked at on the dock to see if the angler called it in was like 20 or 25 percent; so it wasn't too good. But, anyway, maintaining these stations near marinas that are on their way or either where they keep their vessels is a way to make it extremely easy for them.

I will send this around or just leave it here; but we give each of our reporting station operators one of these. Everything you need to comply with your reporting is in here. These are the carcass tags. You take one of these off and they will make a slit in the fish and stick it in him. It is non-reusable. You can't use them more than once so he can't cheat you on a tag. They usually put in their caudal peduncle.

The only way you can get one of those tags is to fill out one of these cards; and that tells you what reporting station it is, what day that fish was landed. Naturally, the tag number has to be on the card. We require those folks to give us their permit number, their vessel name and type of fishery. We wanted to designate or be able to determine was it a private boat fishery contributed along with the for-hire fishery. We get the length of the fish.

NOAA manages those fish by length, the different categories. We always give away stuff. If you participate in the program, we'll give you a towel. The point is with these minimum data elements is that this is a very simple process. It doesn't take a great deal of thought or even time to fill out that card and can literally be done in minutes.

That is what the tag looks like; I showed it to you. Again, that is what the card looks like. A few years ago the NOAA people were starting to get fish-stressed and they wanted to have something that the fishermen could walk off with other than the tag; so we put a perforation in it, so that they could use the backside of it; and we decided to use that for outreach as well.

The angler gets this as a copy or a receipt of having that fish tagged. Here is a good slide that should get everybody's interest. I'm not doing any MRIP bashing here; because to do that, I'd be shooting myself in the foot since North Carolina contributes so much to the MRIP process. Here is an example, looking over time, of what the MRIP estimates were based on the number of fish that reported through the catch card program.

You have to realize that we're talking about a rare event species. Only a handful of fish, less than ten fish, usually we see in our samples; and for some reason, I don't know why – maybe a statistician one day will be able to tell me, but when you've got very low observations of fish, that first and second expansion, one fish will literally turn into a thousand or 500; and then two fish turn into multiples of that. Well, everybody knows you've got to get a lot of observations to get good precision, but something happens on that very low end that makes those catches really go higher.

If you're looking at, say, like in the year 2000, we had about 500 and some fish. That's a lot of fish, but the estimate was about six times that high. I don't know how this applies to some of the species that you have to deal with like the order of groupers, but I would think that a very similar situation exists. I can't imagine why not.

The bigger picture; why is it better to do a census than an estimate? It is because rare events – and we're talking about rare events – almost always have – well, the precision is very low or there is a great deal of uncertainty around that point estimate. They're not common species. One thing that you have to take away from this; you can't use tags on a common species, say, like B-liners or something like that because there is no way you can facilitate it.

It would just be too much trouble and people are not going to do it. It is mainly for a rare-event species that doesn't occur very often; something that is noteworthy or notable or somebody would recognize, hey, I've got to report that fish. It's that kind of thing. You have to realize, too, like in North Carolina a snapper grouper fishery as well as bluefins, but I'm going to talk

about the deepwater groupers because Michelle and I have talked about maybe doing tags for those species.

These are kind of specialized fisheries. People have to run a long distance offshore; they have to have specialized gear; they've got to be fairly young to bound around in that ocean like that. It is not any regular rank-and-file fishermen that do it. Also, tags would provide you data very quickly. It is a very simple design. People have been doing the wildlife for years.

You can ask any hunter if he shoots an animal, he knows he is going to have to report it to somebody. I don't care where you go and what state you go in, everybody has got some kind of reporting program. It doesn't take a lot of money to do this. The tags are cheap. The towels cost a little bit, but the tags are cheap and the cards are cheap.

It worked so well in North Carolina because we have staff in the field. Since we do the MRIP sampling, we've got folks out there every day that can go by these reporting stations; so it doesn't cost a lot of money to staff it. There are always ways to improve things. Outreach; we are constantly keeping people mindful of it, though.

In North Carolina now I think it has become fairly well known in the industry if you catch a tuna or marlin; that people know that you're going to have to report it. We work with our sport fishing clubs and through our tournament directors and others to get the word out about tagging these species.

Validation; we don't have a validation program in place like you would to make any adjustments to the catch; but our law enforcement officers are aware of the regulations and they remind people of it; plus again our port agents are probably one of our greatest assets in that regard. They are in the field every day.

If they see a tuna that has not been reported, they will tag it themselves and get that done for the folks. We continue to review the data that we get. Limitations; this program is just to count fish. That is all it is for is to count fish toward a quota and to get length frequency distributions as well. We don't get any socio-economic, no angler demographics, even though we could look up the vessel names since we get it and do that. There aren't any measures of uncertainty.

There is no way to establish levels of precision or to know what the uncertainty is. We're assuming that with law enforcement and the outreach that we're getting a census of that catch. Especially when you're dealing with something like a bluefin tuna, it is hard to land one of those fish without a bunch of people knowing about it. When they see it, they say, "Hey, you've got to tag in that fish." They say, "Oh, okay, who will tag the fish?"

That is one of the reasons that it worked so well on those species. I would think that it would work that well on something like a snowy grouper or something like that; that it just doesn't happen very often so it automatically brings to mind one of our regulations are in place on this thing; and they say, well, you've got to tag it.

In thinking about what you could do region-wide – and I had to think of this in order to provide a little bit – it would be very hard to do from the council or the federal level. You're going to need to get state participation in this process. There are people that are there every day meeting with fishermen and such.

One thing that is going to happen in 2016 that could make this a very easy thing to do for a tagging system for species of fish is the fact that in 2016 the ACCSP will start administering the access point angler intercept survey, meaning they're going to work with the states. The states are going to conduct the field interviews for MRIP.

In 2016 you're going to have a small army of folks out there every day seeing anglers going by places that they could facilitate the process of tagging fish. One of the other things you could do, you could put your council and NOAA outreach systems into high gear. I can't help but think when we started developing our programs, I think it could catch on much like the wildlife tagging has in that sector.

I think if we started doing it with a set group of fish; that sooner or later at some point in time everybody would think about reporting catch. When I started putting together this presentation, I couldn't help but think that we've been looking at doing some logbook reporting in North Carolina. In fact, we're going to have a logbook requirement in 2015.

We're going to have electronic reporting mechanisms in place as well; and it occurred to me when I was doing this that as soon as we past this logbook implementation in the for-hire sector; that we should probably look at the capabilities for reporting our rare events through a mobile application. Let me ask you a question; how many of you have smart phones, use smart phones in here? Almost everybody – some of you weren't listening, I could tell – anyway, I know my daughter does.

She is in her twenties now and she stays in constant communication with everybody and they know everything. It occurred to me that you could make rules that require that if you had a select group of species that had phone app that you all had to do was hit the app, it would log you in based on your vessel identification. That is the key, vessel identification. Then you'd have a list of species. You'd scroll through those species, hit that species and put a number in and you'd be done; you'd have that done. Now, the hook would be now how do you make people do that?

Like I said, NOAA has had tried to do stuff in the past and people just wouldn't comply. This hook would be that a marine patrol officer could walk up to your vessel, look at your vessel ID. He has proprietary access to that system; he looks in there and says, "Unh huh, Michelle hasn't reported her catch." She is busted. That is the real trick to these reporting requirements is to have some way to enforce it.

Anyway, I thought about that, like an electronic reporting process. It seems real simple to me. We might investigate it as soon as we get finished with our logbook stuff. Furthermore, how you would go about doing this; somebody needs to decide which species to include. Given your earlier discussion, I don't want to be here when you do that.

You're going to have to evaluate the magnitude and the geographic distribution. That is easy to do; you can look at the MRIP database for over the years, pick those species, and you can see where they – you need to go site by site and see where these fish show up so you'd know how to distribute your reporting stations for certain species.

To design a catch card that would accommodate the information you wanted; you've got to keep it simple. If you make it complicated, people will not comply. You identify the reporting stations, keeping in mind again if they can run by or it's where they get gas or where they keep their boats or launch their boats, it would be much better off. I told you it would be short; and that is the end.

DR. DUVAL: Thank you so much, Doug, I really appreciate you coming in and providing this presentation. Are there questions for Doug about the program? Dr. Ponwith.

DR. PONWITH: Thank you very much for your presentation, Doug. Of course, any self-reported- based data collection in terms of QA-QC hinges on good validation procedures. What I would view as one – I mean, you talked about enforcement and you talked about your port samplers.

Are you keeping data on encounter rates from enforcement of how many vessels that had bluefin tuna they're encountering; and of those, what percentage of those tuna are tagged versus not tagged to give you a feel for how many people are slipping fish into the trunk of the car and accidentally not having those tagged? That would be a really interesting way to understand compliance. The other thing would be also for the samplers; how many fish are they seeing and of those what percentage of them have the tag in the peduncle?

MR. MUMFORD: No, I don't know how many – our law enforcement folks are not keeping those numbers; but I do talk to law enforcement people all the time, and they would tell if they've never seen an instance when fish weren't tagged. Remember, again, we're talking about this big tuna. One of the things we had that was so beneficial to this whole process was that the charterboat fleet, which is spread out everywhere, they realized that they were able to keep fishing or stay on those fish because they were counting those fish in such a manner.

It is amazing how much they police themselves and make sure that these fish are being counted. Somebody could sneak some out, but it wouldn't be easy to sneak a tuna out. You can't put him in your cooler. I guess you could get him a trunk, but it would be tough. The other species, yes, you could cheat. Again, that is why I was thinking about for the compliance you'd have to have a way you could look up real close.

My port agents, the fact that we allow them to tag the fish and collect the data, it kind of messes up your ability to say whether or not they're tagged or not because we're tagging them all. They rarely tell me of any – and I remember a time when they've said so and so – people are keeping fish and not reporting them.

I don't know how that would change if you had it for species like snowy groupers or tilefish, your golden tiles or things like that. You'd have to have a real good enforcement, outreach is critical, and you should probably have some structured validation program to do that. I would think that would be necessary.

DR. DUVAL: I had Mel and then Charlie; and I was also, Pres, just going to put you on notice. I was going to see if you might want to contribute anything from sort of the MRIP discussion side of things, whether or not you on the operations side have had some discussions about rare-event species from the national level.

MR. BELL: Doug, the map you showed with all the stations on it, if I'm understanding this, there are people at those stations, your port agents or your clerks, most of the time, all of the time; how does that work? If I come in and I'm going to a particular marina; can I count on somebody being there; do I call ahead?

MR. MUMFORD: I should have made that clear. The marina operators are like extension agents for the division. They've got that little kit behind the desk or behind the checkout counter. We've got big posters in the window saying "North Carolina Reporting Station"; and they'll la-de-da up to the counter and say, "Hey, I want to get a tag for a tuna." Then the marina operator themselves will fill out that information and give them a tag.

MS. BECKWITH: And there is also a 1-800 number, Mel, that North Carolina provides as well as on the HMS permit that you can call the information in as long as you have your permit number, your HMS permit number, and report that way.

MR. MUMFORD: And we only let people do that after hours. We don't want to use that as a crutch and they say, "I'm going to call it in later." Oh, no, no, no; it is after hours.

MR. PHILLIPS: Doug, do you have a sense of what number of fish, say, of snowy grouper or tilefish or something like that; what number of fish might start overloading the system?

MR. MUMFORD: Maryland has a carcass-tagging program in place for bluefins as well. As you know, they get a lot of schooled fish. They'll tag 7,000 a year. When you're in the hundreds, I think you're okay. I think you're okay spreading it out. I think you could do snowy groupers and maybe some of those other weird deepwater, rarely occurring kind of things.

I don't think people catch that many of them. I look at the ACLs, 523 or something like that for some species – I forget what it was – some of those species I think would fit into a category of people accepting over time, hey, we need to report that harvest. You can't estimate that catch with any certainty; I don't care how many people you put on the dock.

MR. ANSON: Madam Chair, I'm not on your council. Doug, nice to see you again. I've got a couple of questions, Doug. Relative to your funding of your port samplers; where does that come from? Is that sport fish money or is that some state-derived line item? What is your funding for the clerks that you mentioned that collect the tags and get the information?

MR. MUMFORD: All of the above; we get sport fish money; we get NOAA money. We had our license – when our license sales' receipts became available, we got a nice chunk of money for that. We get money any way we can and we've usually try to load up samples. "N" is your friend on this baby.

MR. ANSON: I understand. In the state of Alabama we had just this year instituted a mandatory reporting program for red snapper for our recreational anglers, both for-hire and private recreational. There was an interesting program that we did and certainly we can talk offline if you have some questions about some of the mechanics of reporting and electronic and such.

I was curious to know – you talked about the MRIP landings here and you talked about your landings and that they're much more consistent and possibly believable I guess relative to these spikes and such that MRIP can produce for these rare-event species. You said it has been maintained below quota. Has your information been used for monitoring and management of bluefin tuna or are still the management numbers are being used from MRIP?

MR. MUMFORD: I think they're using our numbers, using the NC tagging numbers. There was a time when they weren't, but I think they are now.

MR. ANSON: And so I was curious in some of the discussion that Dr. Ponwith mentioned I guess relative to the validation and so that's a point that we're going through as well; and the Gulf states have a lot of interest and a lot of programs that the states are going to be conducting; so I was just curious to know that.

MR. MUMFORD: Just to share a little bit with you, we submitted a proposal to MRIP to do a logbook validation/benchmarking/whatever pilot project in North Carolina along with a logbook this year. We hope things are going to go along in those lines; so we're going to be in the validation game very soon.

MR. PATE: As Doug said, the MRIP estimates are less than optimal for the rare-event species. One problem that we have is we don't know how to define rare event; and we don't have any programs in place to specifically sample for a rare-event species. The more samples you have from dockside interviews, the better your precision is going to be.

We try to optimize precision by increasing the number of samples. We know this is a weakness in the program and we have a couple of pilot projects that have been proposed for 2015 that hopefully will get at an increasing level of precision for these rare-event species. Currently we deal with them through our regular program.

MR. HAYMANS: Doug, just to be clear; your port agents are primarily tasked with MRIP interviews and they're not targeting landings of bluefin tuna. It is only if they encounter a bluefin in their interview process; correct?

MR. MUMFORD: That is correct.

MR. HAYMANS: Okay, so to consider port agents as additional effort; you said you've got six port agents.

MR. MUMFORD: Actually, we've got about fifteen now.

MR. HAYMANS: Fifteen, but still I mean you're got a lot of area. Those port agents aren't at every marina all day long; and that is why you have marina operators who do this?

MR. MUMFORD: Correct, the 25 different stations, yes. It will not work without those people participating in it and contributing. We had a call yesterday. A new marina in the central district wants to be a reporting station for us because the bluefins, by the way, have just shown up off North Carolina. People want to do this; they want to contribute. They want to have better counts, the whole process.

MR. CONKLIN: Doug, I would imagine there is probably a law in place saying like a dealer can't touch a tuna without a catch tag on it; is that my understanding?

MR. MUMFORD: Could you repeat that, please?

MR. CONLIN: In order to sell a bluefin tuna in North Carolina, does it have to have a tag on it before a dealer can handle it?

MR. MUMFORD: Absolutely. In North Carolina the commercial restrictions are such that it has to be tagged in a very similar manner and it can be sold to a permitted bluefin tuna dealer. You can't sell them at places that aren't permitted and they keep a close watch on those commercially sold fish.

MR. COX: Chris, I was just going to say we can't take the fish off the boat until it has the tag in them.

DR. DUVAL: Other questions or comments for Doug? I know that when I was thinking about this and Doug and I have had some conversations about the differences between a catch card program for tuna and, say, other rare-event species like some of our deepwater groupers, obviously those HMS species are a bit hardier than our deepwater groupers.

This is only counting fish that are being harvested. It is not counting releases. Those fish are certainly going to survive; whereas, if you pull up a snowy grouper or blueline tilefish, it is not likely to be able to be released intact. That is one other thing to consider. Given how wrapped around the axle we got the last time we discussed the harvest tag program and who was going to do what and how we were going to allocate tags to this sector or that sector or that state or whatever,

I just wanted to pull us back a little bit and give us sort of a different way to try to think about things. I'm glad that Pres weighed in with the information on the pilot programs that MRIP is going to be considering in the next couple of years. I'm not necessarily asking for the committee for a decision on continuing to move forward with Amendment 22 at this time, because that

strikes me as another conversation similar to the one that we just had this morning. I need some Wheaties before on a road like that; but I want to make sure that people had some information regarding an alternative approach that we've used in North Carolina and that is being used in Maryland. I think Myra sent round the 2014 report that we put together and submit to NMFS, our agency does, on this card program as well. Are there any other comments from the committee? Ben.

MR. HARTIG: Doug, thank you very much; I very much appreciate your coming. It was a really good presentation. Even if we don't do this in the entire area, at least in North Carolina it seems if we could piggyback on this program and do some kind of a smaller program to get at the numbers. The numbers were the most telling thing about this now.
When you got to the census versus the estimates, it was incredible the differences. Being on the water for over 40 years and being around a lot of recreational fishermen, that points to exactly what I've observed over time. For a lot of our species, they're not catching what MRIP says they are. For others it is probably different.

For others they're probably catching more, but for at least some of the observations that I have, the numbers just don't add up. I think some way to inform this system better, even if we have to do just North Carolina for the deepwater species would just be a world of information about recreational fishing for these deepwater stocks. This template is great, and I just want to thank you for that.

MR. MUMFORD: I would say one thing. I'm going back now and I've watched my daughter with her phone every day and the things they do with phones now is amazing. I think within a few years – and think about how much things have changed in the last five years – electronic reporting capabilities are going to be such that these things would be very easy. The trick will be to get some people educated or outreach in place to make them realize they need to report that catch.

DR. DUVAL: Well, we'll have to go back and discuss amongst ourselves if North Carolina wants to be a guiana pig again in something like that. That is certainly above my pay grade. I appreciate the committee's attention, and, Doug, I appreciate your patience while we hammered through some difficult conversation this morning. Again, it wasn't my intent that we would make any decisions on Amendment 22. I think this is just food for thought.

The next item on our agenda is Regulatory Amendment 22, which is dealing with gag and wreckfish. I wanted to poll the committee and see what you want to do. We have a couple of options. We could start going through the decision document right now.

We're half an hour before we're scheduled to recess for lunch or if you wanted to recess for lunch early, then I would say we would come back here at 1:00 o'clock and then start into things. I would like to get a sense from the committee what you would like to do.

MR. HAYMANS: I would like to keep moving forward. That way if we have issues that we need to discuss over lunch, we can do that.

MR. BOWEN: I'm all for powering through it.

DR. DUVAL: Okay, great, exactly what I want to hear. Okay, Myra is going to take us through the decision document for Regulatory Amendment 22; and this Attachments 5A through 5D in your briefing book.

MS. BROUWER: This is the amendment that addresses the increase or the change, I should say, to the ABC for gag and wreckfish. It also includes an action to potentially modify the bag limit for gag. You looked at this amendment in September. You are scheduled to approve it at this meeting for review.

One thing I'd like to do, if you don't mind, Michelle, is go over the public hearing comments real quick. There weren't very many. For this amendment we held a webinar. We had the public hearing via webinar on November 6th. I gave a short overview of the actions and the alternatives. There were several folks that were registered for the webinar; about a dozen people, which is a good bit many than we've been getting at the in-person public hearings in the last couple of years; so that was encouraging.

Some of the comments that were offered for the council's consider – and I should also say that we received three written comments. We requested comments until November 14th. One of the comments said use the poundage of gag that is currently allocated to account for post-quota mortality as a bycatch allowance once the directed commercial quota has been landed. Fishermen would then be allowed a 50-pound allowance. This is one of the suggestions that was made. Another comment said the current post-quota bycatch mortality allowance for gag was grossly overestimated.

Before any adjustments are made to the gag ACL, the council should consider a more realistic estimate of discard mortality. Recall that when the council implemented Regulatory Amendment 15 and we looked at taking away the accountability measure that was then in place that would close harvest of shallow water groupers once the commercial ACL was met, part of that amendment estimated the amount of mortality that would take place if fishermen continued to target co-occurring species like red grouper and scamp. That is where that number came from.

Another comment was to establish a 500,000 pound wreckfish quota with a 2,000 pound trip limit for commercial snapper grouper permit holders that do not own shares in the fishery; consider buying back wreckfish shares that are being sold and putting them in an open access quota; consider habitat enhancement to improve the health of abundance of the gag and wreckfish stocks.

There was support for the council's preferred alternatives under Actions 1 and 3, which are the gag and the wreckfish ACLs. There was a recommendation for Alternative 1 for Action 2. That is the action that modifies the gag bag limit. There was also a recommendation to reduce the recreational allocation for wreckfish to 1 percent of the total ACL. I should also mention that has also been a recommendation from the Snapper Grouper AP. Any questions on the public comments?

DR. DUVAL: Questions for Myra? I don't see anything.

MS. BROUWER: Okay, so moving on to the decision document, your approved purpose and need is on your screen. You approved this at your September meeting and, of course, you can review it and make sure that it still reflects your intent and the requirement to develop a specific purpose and need.

MS. BECKWITH: Under the need for Action 2, ensure that OY is being achieved by increasing the bag limit for gag, based on the bag limit analysis it is pretty clear that even if we raised the bag limit to two or not, we were not going to achieve the ACL. Actually what I would like to change that to, if the committee concurs, would be to increase access to the resource or to increase fishing opportunity by increasing the bag limit for gag thus imparting socio-economic benefits to the resource users.

DR. DUVAL: This is a suggestion by Anna to go ahead and modify the need to indicate that we would be increasing access to the resource or – what the other phrase you used?

MS. BECKWITH: Increasing fishing opportunity**.**

DR. DUVAL: Or increasing opportunity. We'll let Myra make those changes; but while she is doing that, what do folks think about those proposed changes? We would need a motion after that, but I'm seeing a few heads nod around the table. Mel.

MR. BELL: Yes; it is logical. I mean, we wouldn't be ensuring that OY is achieved but we are increasing access and all, so that wording makes more sense to me.

DR. DUVAL: Certainly, especially since we haven't picked a preferred alternative for any bag limit for gag at this point. We would need that in the form of a motion; and I guess, Anna, maybe if Myra can blow that up a little bit, you can go ahead and make that motion and we'll get a second.

MR. HAYMANS: Increasing doesn't match with the "to address". The need is to address and the need is to increasing access – it needs "to increase access", I think.

MS. BECKWITH: So I would make that motion.

DR. DUVAL: **So the motion would read "modify the need statement as follows: The need for the amendment is to address recent stock assessment results for gag and wreckfish and prevent overfishing while minimizing to the extent possible adverse social and economic effects; and (2), to increase access to the gag resource and increase fishing opportunities, thus imparting socio-economic benefits to resource users." Motion by Anna; is there a second? Seconded by Mel. Further discussion? Any objection to this motion? Seeing none; that motion stands approved.**

MS. BROUWER: Okay, so moving with Action 1. This action revises the ACL and OY for gag. Your preferred is Alternative 2, which would set the ACL equal to OY equal to the ABC-

projected landings from 2015 through 2019, which are with a P-star of 0.3. The ACL for 2019 would remain in place until modified. You have several tables showing you the various alternatives.

As I mentioned, the tables do include what the directed commercial quota would be because the post-quota bycatch mortality amount that gets deducted from the commercial portion of the ACL would remain in place. The Snapper Grouper AP recommended Alternative 2 as the preferred. I've already gone over the public hearing input.

The SSC, of course, reviewed the gag stock assessment update at their April meeting of this year and they recommended it as the best scientific information available. You have the option of not doing anything and just keeping Alternative 2 as the preferred or make any modifications at this time.

MS. BECKWITH: I know that Jack has had some concerns about the state of the gag stock; and I would like to have a little bit of discussion about his concerns. I know when we talked about scamp, right now we have our ABC set to ACL. If there are concerns with the state of the gag resource, then this would be the appropriate place to take into consideration some of our management uncertainty. I'd invite Jack to tell us about some of his concerns about the resource.

MR. COX: I've been fishing on gags since the early eighties off of Morehead City. I'll tell you that I just don't feel like the stock is where it was in the eighties. I think it is a long ways from where it was in the eighties and early nineties. Commercially we're putting a lot more effort into catching the amount of fish in day than what we were back in the eighties and nineties.

I just remember so many days where we would go and catch – we would fish five or ten places in a day through the eighties and nineties and catch what we needed, which would be four or five hundred pounds of fish to make a decent trip. What has happened through those years and to where we are now is that we're fishing much harder.

We're fishing fifteen to twenty-five places a day, kind of hit and run, go to a spot, catch two or three fish where would catch ten or fifteen fish maybe on that spot, go to another spot. I'm just concerned that the stock is just kind of where it is. I mean, it is not really rebuilding. I think technology and value of the fish has just increased.

The ex-vessel price of that fish is much different than it was in those years, and it is $5.50 a pound to $5.75 a pound to the vessel. There is so much demand on the gag grouper now. The recreational effort on that fishery, being that it is in proximity to shore has increased dramatically that I just have a concern about that fishery. This is a fishery that I primarily make my income off of and have since the early eighties. I would just like to put that out there.

MR. HAYMANS: Madam Chair, I was just going to suggest that we hold discussion on Action 1 until we move through Action 2 as well. The last time we discussed this I was really in favor of increasing the recreational bag to two based on Table S-7, which shows the opportunity of reaching the ACL was fairly low.

I remember there was quite a bit of discussion from Roy moving to two, and it seemed like the whole committee was hesitant in moving to two. As Anna started in her comments, really, Action 1 should be the place that we express that uncertainty. I would like to have a discussion about the recreational bag before we actually choose what our level of uncertainty is.

MS. BECKWITH: Yes; and I see where Doug is going with that. Let's back up a minute. When we started discussion of this document, it was originally part of this discussion about reallocation of some of the recreational ACL over to the commercial because they were achieving their ACL while the recreational was not.

We kind of took a step back and said the recreational community is not necessarily achieving their aggregate bag limits at all or for gags oftentimes is encountering gags but are encountering undersized gags; so they're having to release them; so how could we increase the access to the recreational and for-hire sector to gags. Looking at the big picture and understanding some of Jack's concerns that this is a very valuable commercial fish, but this is also one of the more accessible species for recreational fishing; so it is a lot easier to encounter gags at least in North Carolina than it is some of our deepwater species.

When we take a look at what makes up our aggregate bag limit now, we have concerns about scamp and yet we dealt with that in the appropriate place with the ACL being equal to I think 90 percent of the ABC, but we still allow up to three scamps to be caught within our aggregate. We have a rebuilding plan for red grouper and yet we allow up to three red groupers to be caught within our aggregates.

Jack and I have had major differences of opinion about potentially not allowing the opportunity to increase access to the gag resource by not increasing the bag limit on gag because there is an interest in – my perceived sense is that there is an interest in eventually shifting some of that unused ACL over to the commercial.

I am not sure, in my opinion, that would be a fair path forward. Also, if there is a legitimate concern with the gag resource, then increasing commercial harvest, which has up to a 40 percent discard mortality rate, I believe, as compared to a 25 percent estimated discard mortality rate from the recreational fishery isn't necessarily doing the species any favors.

As we go through our visioning process and as we have discussions on perceived trip satisfaction for a recreational fisherman and increasing fishing opportunity for recreational fishermen, then we have an opportunity to offer some of that back without a significant impact or even ability to achieve that ACL. It does two things.

If there is a concern for the stock, the recreational community can not achieve their ACL, which at times allows – can be conceived as optimal yield for the recreational fishery because it is allowing for some additional abundance to hopefully accrue in the resource; but increasing fishing opportunity and still allowing some of that unused ACL to be left out there. Those are some initial thoughts, and I'll give back the floor and take it back later.

MR. COX: To say that the commercial industry has a much higher discard mortality than the recreational I don't think is a fair assumption here. I don't think that is a very true fact because we fish alongside of each other. We're commercial fishing alongside the recreational folks; and the discard that they're doing needs to be noted I don't think is that big a difference.

MR. BOWEN: To Anna's point about scamps being three and gags being one, the scamp ACL – and I'm recalling off the top of my head, but I think twice what the gag ACL is; and I think that's the reason there is a big limit difference or such a difference. You're talking about wanting to give back to the recreational fishermen by increasing the gag bag limit; they're not catching them now.

You're not going to give them anything if they can't catch them to begin with. I think it has been testimony of people on the council, it has been testimony of people on the advisory panel. The only people that are catching their limits of gags are the divers. The hook-and-line fishermen are not catching the fish. So, raising the bag limit is not giving the recreational fishermen – hook-and-line fishermen anything, in my opinion.

MR. PHILLIPS: Well, maybe where the gags are caught somewhere else may be different, but I'm a little confused. Anna says they're having to throw back a lot of small gags; so if you've got a 25 percent discard mortality but you're throwing more fish back, then that is an issue. But if they're fishing next to each other, then the discard mortality you would think would be the same. That's in North Carolina; and I'm not sure what it would be down further south in Florida or off of South Carolina or something. I'm concerned about the discard mortality going up if you're throwing back a lot of small fish.

DR. DUVAL: First of all, there is probably not that many gags caught in Florida just based on the shallow water grouper closure. That has significantly limited Florida's gag grouper fishery. Doug.

MR. HAYMANS: I was just going to suggest based on the best available science that we have in front of us, the fishery is not overfished or undergoing overfishing. Based on the table that we're provided regarding the ACL, we won't come close to that ACL in any of the scenarios. This council gets accused all the time of taking and never giving back.

For those individuals who do catch gag, they perhaps have the opportunity to keep two fish. It may be that a lot of folks aren't catching gag; for those that do, I would like to give back something. We have that opportunity here; and I just don't understand not taking it.

MS. BECKWITH: Sorry for stirring the rabbit hole right before lunch, but my discard mortality rates are referencing the stock assessment. If you assume that those are correct, then that is what those numbers that our current projections are based on. That is where I brought those up from.

MR. HARTIG: I think this is a pretty healthy conversation. I like the new members getting into this and talking about what we may or may not do based on what the assessment says. To me, about Anna's concern about trying to get OY, any potential talk this council has about concern for the stock negates any future talk about any kind of shift, in my mind.

That just stops that right dead in its tracks; because if you all have concerns about the gag grouper resource – and I've talked to a lot of fishermen and gag grouper was one of my important fisheries before we got shut out in Florida. I've watched gag grouper and we have seen some of the aggregations come back; not to the level that they were previously, but there has been some comeback.

Just given that the commercial fishery is able to catch the allocation before the season closure gives you another indication that there is some improvement in the stock. However, some of that could be bolstered by the recreational people not catching their allocation. That one is kind of tough to really put your teeth into too much.

I think this council – when Jack was talking about the stock being in trouble, I actually think you could increase the bag limit by one for gag to get to Doug's – you know, for the few people who might be catching them. I don't think it is going to be a big impact on the stock to do that based on the information we have in front of us from the bag limit analysis.

I don't think that is going to be a giant impact; and it might get us a few more fish to the people who would like them without having any real impacts on the stock. I see that bag limit being kind of a neutral thing for the stock in terms of increasing it; but small increases to people who are able to catch those fish and we would be able to give something back to them and get the ACL possibly up to some level.

I think it is healthy and I think we may want to look at something less than we are allowed to have, put some management uncertainty, 80 or 90 percent, whatever you feel it should be; and we could do it that way. I really like the conversations that are being held around the table now about looking at the stock not in terms of just what the assessment says you can have but in terms of what the people really think who catch animals around the table and talk to people who do about what the stock condition really is. I've talked to a lot of people.

Florida, Michelle, yes, South Florida is pretty much shut out, but North Florida is still close enough to the heart of the abundance where they get to catch these fish later in the year. I've talked to Robert. Robert has concerns about gag as well as most other people that I've talked to. I don't know that anybody has told me that gag is in glowing shape that we should go gang-busters trying to catch gag. That is just my viewpoint and I'm very heartened by the conversations we're having; and we'll see where it goes.

DR. DUVAL: All right, I'm going to ask Jim Atack, our Snapper Grouper AP Chair, to give us the benefit of the AP's viewpoints.

MR. ATACK: The first thing I want to address was Zack's comment about the scamp. I believe the ACL is 75 percent of the gag as far as pounds per year; so it is not like it is three times the ACL; so it is actually less.

MS. BECKWITH: The scamp ACL is 176 and the gag ACL for recreational is 340.

DR. DUVAL: And that is going to change with Amendment 29 in which case the scamp ACL is actually going to go up about double. It is going to be like 320 something.

MR. BOWEN: That was my point.

MR. ATACK: And the commercial side on the scamp is 330, which is real close to the gag; so between the two, the total ACL is about 75 percent of what the gag is. I just want to go back a minute because there has been three motions over the past four meetings by the AP on this subject. Some of the makeup of the AP has changed over those last four meetings.

The last meeting had a very low showing of recreational. It was mostly commercial or dealers; and part of that could have affected the way the votes went on that. As Anna was saying, the recreational is not catching much of their ACL. Since 2009 when Amendment 16 went in, they lowered it from two gags to one gag – and that was to prevent the ACL from being hit – along with the four-month closure.

Some argument was made at that point that you didn't need to go to two gags to one gag to keep from hitting the ACL. With the reduced pressure and with the economy in '09, the recreational landings have been under 200,000 pounds per year short of the ACL; so over five years there has roughly been a million pounds left out in the ocean from the recreational sector to help this stock.

If you back and look at it, if anything, that has helped the stock more so than hitting the ACL in hitting the ACL in both sectors each year. The commercial has hit their ACL each year; December I think of 2011, November of 2012, October of 2013 and back to November in 2014. It has improved. I think the fishery has improved some; and that is what the SSC says. I think right now they're saying overfishing is not occurring and it is not overfished is what the comment is in the literature here.

DR. DUVAL: It is actually overfishing is occurring; it is not overfished. Overfishing is occurring.

MR. ATACK: In the decision document they make a comment about they don't believe overfishing is occurring now.

DR. DUVAL: Who doesn't believe overfishing is occurring now?

MR. ATACK: The SSC.

DR. DUVAL: Well, I'm just telling you that the stock status right now is that overfishing is still occurring. I just want to make sure that's clear and correct on the record.

MR. ATACK: Yes; I've read that in the SEDAR, but the document says the other – but, anyway. The bottom line if the stock is the problem, then really the ACL should be lowered for all the landings and not just the recreational. If the stock has to be managed by the ACL, then both sectors should be allowed to hit their ACL. I agree with what Anna is saying.

MR. COX: Yes, I was at the SEDAR stock assessment back in April; and I do remember many times that it was brought up that there was a lot of uncertainty in it. The commercial sector is counting fish; the recreational sector is doing an estimate. There is a difference; and I will continue to remind folks that. I'm not saying that we need to lower the ACL for anybody. I'm just saying we need to be careful. The AP, Jim, did say staying kind of where we are; that status quo was a lot better than doing any changes. Am I correct on that?

DR. DUVAL: That was the motion. Chester.

MR. BREWER: I'll be really quick; I agree with Doug.

MR. HAYMANS: Madam Chair, just in the opening paragraph on Page 3, I understand what the assessment said, but then it has the letter from NMFS to the South Atlantic Council Chairman, dated September 8, 2014, saying that the gag is neither overfished nor undergoing overfishing. That is where my comment came from a moment ago.

DR. DUVAL: Right; so this is where we got into the discussion about the terminal year estimate versus the average over the past three years and the uncertainty there. Jessica.

MS. McCAWLEY: I know we're going to be talking about this maybe tomorrow, but I would rather see the shallow grouper closure modified as opposed to the gag bag limit. When we've been talking about that at the South Florida Committee, that seems to be more important is modification of that closure. That would help Florida more than increasing the bag limit for gag, I believe.

DR. DUVAL: Duly noted. Zack.

MR. BOWEN: Jessica, just for clarification, you would be more interested in, say, a three-month closure versus a four-month closure; and would that be on the front end such as January or the back end such as April?

MS. McCAWLEY: I would have to look back to my notes from what happened at the public workshops, but I'm basically just saying I'd rather remove closed months than increase a bag limit.

MR. BOWEN: Thank you; that's excellent food for thought.

DR. DUVAL: And remember we'll be considering this. The South Florida Workgroup is going to be meeting in January; so that's one of the things we're going to be discussing is modification of spawning season closures and consideration of the species that are included within those closures. Anna.

MS. BECKWITH: And back to Jack's point, not to call him out, but he just said he is not interested in seeing a decrease in the ACL by adjusting our management uncertainty, but he does want to retain the bag limit to one; and to me that sets kind of not a great tone that it is almost pick a lane.

I mean, either there is a problem with the stock and we have to deal with the whole quality of the stock and we do it fairly or we allow both sectors to be managed separately and to be able to have the opportunity to reach their ACLs kind of independent from one another.

MR. BROWN: I got to thinking about something when Jim made the comment about the amount of the ACL and everything. Going back to 2009 when the gag limit was two within the three-fish bag limit, the ACL for 2009 was 340,000 pounds and the landings were 449,000 pounds. We went over the ACL in 2009 with the two-gag limit; and that's recreational.

DR. DUVAL: I have Doug and then Jack and then Charlie, and then we're going to start wrapping this up. There is only so many times we're going to go around the horn on this; and I think it would be good to have some discussion about whether or not we want to change our preferred alternatives.

MR. HAYMANS: To Jessica, what does the shallow water closure with regard to gag have to do with South Florida issues seeing as we just heard that is not a very predominant species in South Florida?

MS. McCAWLEY: Because it affects black grouper. Black grouper is what is more important in South Florida; and so they believe it has been lumped in with that closure. I think I'd like to readdress that closure and figure out if it is the right months; is it really needed for as many months as we have right now? Do we want to just pull black grouper out of the shallow water grouper or what? Those are the types of things that I'd rather consider.

MR. HARTIG: If you wanted to talk about the Keys, you get to where I am, Doug, right on the edge of the biogeographic boundary between those two stocks, those two areas, gag is very important. You don't have to go very far up the coast in Florida before gag becomes important; and that season – a one-month change would be a big impact, allowing Florida to get back into that fishery to some degree.

MR. HAYMANS: And just real quick, it came to mind yesterday or the day before and I didn't say it; but we started the South Florida Issues Committee mainly because of the difference in regulations across the Monroe County A1A Bridge; and, golly, it continues to grow. I mean it is growing up both sides of the coast.

MR. COX: To what Anna was saying, when you're asking for more allocation or you're asking for an increase in bag limits in the recreational sector, it is just going to always be heartburn because we know how accountable the commercial sector is; and we're just going back to so much uncertainty in the recreational sector. That is my point; but to reach optimal yield in the commercial sector, what I would like to see our trip limit be stepped down and the season be extended.

DR. DUVAL: I believe that Regulatory Amendment 14 puts in a trip limit step-down to 500 pounds when 75 percent of the commercial ACL is met; so you'll get that come January 1st.

MR. COX: Yes, I know, but I'm thinking maybe do something even different than where we originated a thousand and then we step down to 500. I would much rather see something less than a thousand to begin with and then step down.

MR. PHILLIPS: Well, considering the conversation around the table and the recreational people, what they catch, if we changed the preferred and use a lower ACL and we don't change the bag limit for the recreational, it is not going to affect them. The only people it will affect is the commercial because they're hitting their limits. The recreational won't. If we try to be conservative and lower the ACL, the fish are going to come out of the commercial side. It won't come out of the recreational side; so we just need to kind of consider that if we're going to be conservative, if that's the road we take.

DR. DUVAL: Is there anymore discussion around the table with regard to the ACL and the interplay between that and consideration of the bag limit? Zack.

MR. BOWEN: If we're going to talk about it, we could always get in the allocation discussion.

DR. DUVAL: No, we're not going down that road at all. Is there any desire on the part of the committee to change the preferred alternative at this point, which is ACL equal to OY equal to ABC?

MR. HAYMANS: Well, there was that intention, but what Charlie just said really made me start thinking, so I will hold that until after lunch.

DR. DUVAL: So there is no desire on the part of the committee at this time to change our preferred alternative under Action 1? Do you want to break for lunch and then come back and discuss Action 2, which is the bag limit? Okay, great, we will stand in recess until 1:30.

(Whereupon, the meeting recessed at 12:05 o'clock p.m., December 3, 2014.)

The Snapper Grouper Committee of the South Atlantic Fishery Management Council reconvened in the Grand Ballroom of the Doubletree by Hilton New Bern/Riverfront, New Bern, North Carolina, Wednesday afternoon, December 3, 2014, and was called to order at 1:34 o'clock p.m. by Chairman Michelle Duval.

DR. DUVAL: It is 1:34 by my accounting and we still have a lot left to do; so let's go ahead and get back into our discussion of gag. We had quite a healthy discussion before lunch with regard to our preferred alternative on Action 1, which would revise the annual catch limits and optimum yield for gag in the context of decisions that might be made with regard to Action 2, which considers modify the bag limit for gag.

Who would like to start? We are back at Action 1, I think, so if anyone has a desire to modify our existing preferred alternative, which would modify the ACL according to the catch level recommendations from the assessment update to be equal to OY equal to ABC. Myra has got the table up there on the screen for you. Mr. Chairman.

MR. HARTIG: I don't know all the discussions that went on over lunch, but I'll just throw a motion out there. If it gets seconded, we'll talk about it – ACL equals OY equals 90 percent of the proposed ABC; I move that to be our preferred alternative.

DR. DUVAL: There is a motion by Ben; second by Jack to select Alternative 4; ACL equals OY equals 0.9 proposed ABC; was that correct, Ben?

MR. HARTIG: Yes.

DR. DUVAL: So a motion to select Alternative 4 as a preferred. Discussion? Zack.

MR. BOWEN: I can definitely support that.

DR. DUVAL: Do we want to have some discussion about why? Ben.

MR. HARTIG: Yes; I just think with all the concern we've heard throughout the jurisdiction about the gag resource; that if we'd be a little bit conservative – yes, I think we are seeing some response to management, but I think given that it hasn't been what we think it could be; that if we take a little bit more pressure off the stock, it may respond more favorably to the lower harvest limits.

DR. DUVAL: So maybe a little bit of perfection of the motion to deselect Alternative 2 and select Alternative 4; is that okay with the motion maker and the seconder? Okay, Jack.

MR. COX: Well, I was just looking at what the ACL would look like; and I was wondering if I could do a friendly amendment to Ben's motion and go to 95 percent of the ABC rather than 90 percent.

DR. DUVAL: I'm not sure that would be – it is just an entirely new alternative; so I think that would actually be a substitution motion, Jack. Jack would like to offer a substitute motion to deselect Alternative 2 and selection Alternative 3 as a preferred. Is there a second to that motion? Seconded by Charlie. Discussion. Jack.

MR. COX: Well, I just think that would be too big hit on the ACL. As I've had a chance to look at it here and what that would do to dropping it back that far; I mean, like I said we're not in terrible shape. I just don't think we need to be increasing, but I think 95 percent is a little middle of the road.

MR. HARTIG: Like I said, I threw a motion out there and if you all feel that 95 percent is where you want to go; I'm fine.

DR. DUVAL: Okay, any other comments or discussion about this motion? Bonnie.

DR. PONWITH: If you look at the results of the assessment and you look at the fishing mortality rates, I think it is written in here that the fishing morality rates, if you look at a three-year period, were less favorable than if you look exclusively at the terminal year. I think that

when you hear the SSC talking about uncertainty, that's the kind of uncertainty that they're talking about.

You have a combination. You've got the scientific uncertainty of is this fishing mortality rate jumping around or do you have a start of a trend; so there is that question. Then in addition to that there is the management uncertainty regarding if you set all of them equal, it presumes that you've got a hundred percent capability of managing very precisely to that ACL.

We know that our ability to manage to the ACL on the commercial side has vastly improved due to the hard work of the dealers who are now reporting electronically. That has very dramatically improved the precision of our ability to close on time. Of course, the recreational monitoring and ability to close on those ACLs is lagging behind. I think it is important to take all of these factors into consideration when you think about how you set those buffers.

DR. DUVAL: Thanks for that, Bonnie, good points. Any other discussion on the motion? **We have a substitute motion that reads deselect Alternative 2 and select Alternative 3 as a preferred. Is there any opposition to this motion? Seeing none; that motion stands approved. That is the substitute motion; the substitute now becomes the main motion, so we now have to vote on the main motion. I'm assuming we don't need anymore discussion. Is there any objection to the main motion? Seeing none; that motion stands approved.** Now we get into Action 2, which is the modification or potential modification of the bag limit. Anna.

MS. BECKWITH: I move we select Alternative 2 as our preferred.

DR. DUVAL: There is a motion by Anna; is there a second? Second by Doug. Discussion?

MR. PHILLIPS: There was some discussion earlier about possibly shortening the spawning season a month, which would allow the recreational people to fish a month longer; therefore, they would catch more fish. It wouldn't help the commercial guys because they're still going to reach their ACL. Before I would vote on going to two fish, I'd like to hear some thoughts at the table of possibly at the next amendment option that we have talking about the shortening the spawning season closure and see if that would be preferable.

DR. DUVAL: Just a couple sort of procedural thoughts on that. This is one of the ideas that has come up during visioning is modification of our existing spawning season closures. I see like two options for potentially moving forward with that. One would be through whatever amendment we have that would contain all these sort of short-term quick things that we would want to do as a result of visioning; so that is one option.

The second option would be because we're already considering modifications to the spawning season closures and the species contained within those closures as part of the South Florida Workgroup; we could consider it through that vehicle, which I don't think has a number. It is a simply a joint amendment between the Gulf and South Atlantic Councils. Jessica.

MS. McCAWLEY: I'm not sure that you want to keep it in the joint amendment between the two councils just because we know how long it takes to do a joint amendment between the two councils. If we're going to consider this in lieu of a bag limit increase, I think some other amendment that would result from visioning would likely go faster than this joint amendment that has the South Florida information in it.

MR. BOWEN: I can't support this motion. What does that say about this council when we know that overfishing is occurring and yet we're going to raise the bag limit? I can't support it. I pulled a fellow out of the audience here that I had never met before twenty minutes ago, a recreational fisherman from North Carolina; and he says he can't find a gag grouper offshore. That is going against our AP; a unanimous vote not to raise the bag limit. It is going against what all the fisherman that I have talked to, charterboats, headboats, private anglers. I can't support it when we're not seeing the fish.

DR. DUVAL: Just one quick thing on the stock assessment; as Jim noted earlier, the assessment found that the stock is undergoing overfishing based on the average fishing mortality based from the final three years of the assessment. That's usually how we get that is an average of the three last years, which would be 2010 to 2012, but stock was not overfished.

As Bonnie indicated, the terminal year of the assessment in 2012 indicated in that terminal year overfishing was not occurring and so the SSC qualified their comments on the assessment by noting that based on everything that we know right now, given the uncertainties in the projections, it is unlikely we're going to be overfishing into the future. Hopefully, Bonnie, I didn't put words in your mouth or misstate what the SSC said. I just wanted to put that out there for you, Zack.

MR. BOWEN: Thank you, Madam Chair, but it sounds like there is some uncertainty there as well.

MS. SMIT-BRUNELLO: And just reiterate something Doug had mentioned before is based on all that, on September 8, 2014, the Service sent you all a letter saying that gag was not undergoing overfishing.

DR. DUVAL: Other discussion on this motion or Charlie's thoughts on potentially a spawning season closure modification? Jessica.

MS. McCAWLEY: One thought; because of the timing of how long it might take to remove a month of the spawning season closure, I guess people could think about we could modify the bag limit now and then consider the modification to the spawning closure and go back and adjust the bag limit so that you're not having a double whammy if people think that gag is not doing as well.

MR. BOWEN: That seems like a lot of back and forth, you know, time, money, effort. One thing else that I'd like to bring up is in this motion it says only one fish within the aggregate can be a black grouper. I think the way it was or the way it is now is because of the misidentification of black grouper and gag grouper. It is hard to tell the difference. Hell, they're hard for me to

tell the difference, and they're going to be harder for just an average recreational fisherman that goes fishing on Saturday and Sunday to tell the difference. That is another reason I can't support this motion.

DR. DUVAL: I see John Carmichael came up to the table. John, did you have a couple things you wanted to say about the assessment?

MR. CARMICHAEL: Yes; I guess I just wanted to ask a question for clarification that I see foresee being asked by some SSC members about the status determination. The SSC did state that overfishing is occurring; and then they also said – and this is from the report – the SSC wants to note that the regulatory closure in 2012 may have prevented overfishing from occurring.

We've always sort of operated in my understanding in this realm that the assessment is done and that sets your status. If overfishing is occurring, then you end overfishing, but you can't really say it is ended until you do another assessment and prove it. For example, the stocks now that are listed in the South Atlantic as overfishing are red snapper, speckled hind, Warsaw grouper and blueline tilefish.

By this logic of gag, if we state below our ABC on those stocks, they shouldn't be overfishing anymore either. It is just kind of confusing to me how this is working that we're determining the status is not overfishing based on the projection; the SSC in their assessment said it was; so sort of who makes that call and when are we allowed to make that call that overfishing is not occurring on a projection as opposed to using the terminal year of information that we always have used.

DR. DUVAL: Again, we usually use – in terms of the overfishing status, it is the geometric mean I think of the last three years in the assessment. I'm just reading from the amendment document as well, "However, the fishing mortality rate for 2012 and projected fishing mortality rate in 2013, based on the actual landings, suggested overfishing ended in 2012."

The quote from the SSC – the Chair of the SSC states, "The best we could tell based on the way we are projecting, given all the uncertainties that we know that exist in projections, it looks like we're not going to be overfishing going into the future."

I think that is probably the confusing part for people is that we've got this statement in the amendment document that says, "Thus the assessment found that the stock is undergoing overfishing based on the average fishing mortality rates from 2010 to 2012, but is not overfished." We have a letter from the Regional Administrator that says you're not overfishing; so where do we stand?

MR. CARMICHAEL: I guess I'm just wondering why in this ACL/ABC business and talking about status and particularly speckled hind and Warsaw grouper; the SSC had long discussions about their status and thinking given all the actions the council has taken, they didn't think overfishing was likely to be occurring, but they were told that doesn't count; that doesn't mean anything unless you have an assessment to back that up.

It seems to me, and just what I'm saying is looking at this very simply, if the projections show we're not overfishing in the future – and that is what Luiz is saying – you kept yourself at ABC, and it looks like maybe you didn't overfish in 2012 – we're ignoring the retrospective, which has shown we have tended to have an issue with F – and if we stay below ABC in the future, we're not going to be overfishing, well, of course, for every stock, if we stay below ABC in the future, we're not going to be overfishing.

If we carry this to the end, well, we don't have to worry about overfishing ever again and we should probably get speckled hind and Warsaw grouper and blueline and red snapper all changed from overfishing, too, because we're staying below our ABC. The SSC had a lot of debate about the status of gag, for like an hour.

They debated the terminal year; they debated the average; they debated which carried more weight. In the end they came down to thinking that the appropriate reference for that stock was that three-year average. Remember in this case we had snowy grouper in the same boat; and depending on how you chose things, you could switch the status of both. If we had gone the other way, we could have determined that snowy grouper was overfishing if we used the most recent year, if I recall this properly. It seems to me we're being extremely inconsistent in this case.

DR. DUVAL: Chester, I thought I saw your hand up.

MR. BREWER: They sent us to this school to learn about parliamentary procedures; and I was getting ready to make a motion to what is actually called the previous question, but I'm not going to do that.

MS. McCAWLEY: I went and looked at the appendix, so we had already moved – so I'm trying to speak to one of the points that I think it was Zack brought up. We had an alternative that we considered but moved to the rejected that would take gag out of the aggregate and you could just change the bag limit for gag. Since there seemed to be some confusion about black grouper, does that mean we're increasing black grouper, so I'm just kind of throwing that out there that we considered this and rejected it.

MR. BOWEN: Again, I just want to reiterate, as Mark brought up, the last year that it was two per person, the recreational sector really exceeded their ACL a hundred-and-something thousand pounds, if my memory serves me correctly; so another thing to keep in mind. Again, one more reason I can't support this motion.

DR. DUVAL: So then perhaps people should talk with their vote. Is there any other discussion that folks would like to have? I'll just remind people that we're at the point of approving this amendment for formal review. Any other comments before we consider a vote? Could I please see a show of hands of those in favor of the motion –

MR. BOWEN: Madam Chair, can you clarify this, because we have council members here that don't know what they're voting on.

DR. DUVAL: The motion is on the screen. It is the motion that –

MR. BOWEN: To increase the bag limit?

DR. DUVAL: Yes. Everybody clear with what we're voting on? The motion is to select Alternative 2 as a preferred alternative for the bag limit. Okay, five in favor. Those opposed; seven opposed. **The motion fails.** Zack.

MR. BOWEN: I would like to make a motion to keep it status quo.

DR. DUVAL: That motion would be to select Alternative 1, no action, as a preferred?

MR. BOWEN: Correct.

DR. DUVAL: Is there a second to that motion? Seconded by Mark. Other discussion? Okay, could I please see a show of hands of those in favor of this motion to select Alternative 1, no action, as a preferred? I see six in favor. Could I please see a show of hands of those opposed, four opposed. The motion carries.

I'm looking back towards Gregg in the back of the room and just in reference to the suggestion that Charlie brought up in terms of modifying the spawning season closure in an appropriate amendment that we could put that in; we did speak about an amendment that would come out of the visioning process, but I don't see that happening until probably the beginning of next year, to be perfectly realistic. Is there an option of doing something like that in Amendment 35, which is species' removal?

MR. WAUGH: Well, 35 we're approving to go out to public hearings at this meeting; so I think it would be difficult to get that in. I know Jessica had indicated perhaps it would take longer if it is in the joint amendment. Joint amendments are always challenging. One of the reasons we have the South Florida Group dealing with that is to try and standardize the closures between the Gulf, the state and the South Atlantic.

To me that is a good place to talk about that and try and get agreement across the board so that in Florida at least you have the same regulations. There are options. Doug mentioned how did South Florida get expanded, but there are options in there that would make modifications to that shallow water closure throughout the EEZ.

We're going to be talking about this a little bit when we talk about the SMZs, when we go through that decision document, and then tomorrow under Executive Finance, when we talk about the Joint South Florida Amendment. I think we definitely don't want to try and deal with it within this amendment.

By the time we get through Executive Finance and Full Council, we'll have an idea of our priorities and we can look if there is some place that we can put it that might move faster than that joint amendment. The current schedule for that is to try to approve it for public hearings at

the June meeting when the two councils are meeting jointly; so that is pretty fast. Now there is a lot to be done to meet that, but that is the rough schedule right now.

DR. DUVAL: So I think, Charlie and Jessica, would it be okay at this point if we perhaps continue to have that discussion and maybe we can provide some direction to staff with regard how we might want to see that modified; and it can be included in the joint amendment. Jessica.

MS. McCAWLEY: Okay, first, like Gregg said, I don't think we should move it over to the amendment that is removal of species, because the FWC is waiting to extend regulations because the Gulf Council removed those species a while ago. Those species have already been removed from the Gulf Plan, but they're not removed over here on the South Atlantic yet.

We're holding back state management extension until the South Atlantic can get those species removed. We could try it in the Joint South Florida. We'll know I think maybe after the January South Florida Committee Meeting how that is going to go, if it looks like it is going to stay in there, what other people think about it especially from the Gulf Council; and then that would allow us, if it needs to be pulled out, maybe move at the March Council Meeting into a different amendment.

DR. DUVAL: I think we could do that. Does that sound good and we'll see where it goes?

MR. PHILLIPS: Yes; I would like to see this done as quickly as possible and as practical as possibly; and so, yes, I agree with Jessica.

MR. HAYMANS: My two cents, I'd prefer to wait until visioning is over to look at any seasonal adjustments

MS. McCAWLEY: So with that being said; does that mean that then we could not approve the South Florida Amendment that might make changes to that season; we couldn't approve at the June meeting to go out for public comment?

DR. DUVAL: I would hope not; we have been working on that South Florida stuff for a long time and it needs to be done. There needs to be consistency in regulations. I'm hoping what Doug is saying is just that in regards to gag in particular and the remainder of the shallow water grouper closure; that he would like to see that considered as part of any amendments coming out of visioning.

MR. HAYMANS: So what Doug is saying is that he really hopes that anything coming out of the South Florida Issues Workgroup isn't going to affect the rest of EEZ across the entire South Atlantic. Maybe it will; and when I read those documents more thoroughly, maybe I'll have a different opinion, but again I thought we were trying to realign regulations across A1A and not affect the rest of the EEZ.

MS. McCAWLEY: I think that was the initial plan, but you might remember at the past couple council meetings we've added things or punted it over from this council to the South Florida

Committee that were things that we were hoping would be changed throughout the entire council region.

There are things in there about circle hooks that was brought up by the AP and then it was decided that should be pushed into the South Florida Committee even though it wouldn't necessarily happen only in extreme South Florida.

I agree that I think that is how it started, but it seems like we've made the conscious decision especially at the last couple council meetings to punt some other things over to that group or to that joint amendment that is being worked on.

DR. DUVAL: I don't think we're going to make a decision here right now about that. We're going to continue to have discussions in January about the spawning seasons that we're looking at in South Florida, and I think we can maybe make a more appropriate decision after that. Let's go ahead and move on to Action 3, which is revise the annual catch limits and optimum yield for wreckfish. Hopefully, this will be an easier discussion.

MS. BROUWER: And here again you've already selected a preferred, which is Alternative 2, and that is to set the ACL equal to the OY equal to the proposed ABC; and then the ACL for 2020 would remain in place until modified. You've got Table S-8 on the screen now that shows you what values would be for those years.

DR. DUVAL: Is there any desire on the part of the committee to modify the existing preferred alternative? I'm not seeing any hands go up so I think we're good there. The next thing we need to do is actually approve this for secretarial review. I think the codified text is going to have to be modified based on the change of our preferred alternative under Action 1; so perhaps we'll do the deeming at full council, then, correct? **I would just need a motion to approve Snapper Grouper Regulatory Amendment 22 for secretarial review, and I think we can do the last part of that motion in full council. Jessica.**

MS. McCAWLEY: So moved. Motion by Jessica and second by Charlie. Discussion? Any objection? The motion passes with one objection.

MR. HARTIG: Before we completely leave this, Michelle, there was a motion from the AP to consider a 1 percent recreational allocation for wreckfish. I think I'd like to hold that in abeyance until we get through the tag program. I think if we had a tag program, we might find some more information. If we do not proceed with a tag program, I would say we should come back and revisit that.

DR. DUVAL: I think that is great, Ben, and also I think I would remind folks that the whole allocation discussion was something that we decided we wanted to take up as part of visioning; so given that is an allocation issue, I would recommend that we take it up there but not forget about it.

The next item on our agenda is Snapper Grouper Amendment 36, which is the spawning SMZs. This is Attachment 7A through 7C in your briefing book. I think Gregg is going to come up here

and walk us through things; and then we're also going to get a presentation from Dr. Will Heyman on some of the research that he has been doing.

MR. WAUGH: While we're loading that presentation, I'll just cover a little bit of background. I'll just give a brief overview using the overview in the briefing book. Then we will have Dr. Will Heyman give us a presentation; and then we'll walk through the decision document that is 7B. In terms of a brief overview – and this is in the overview document on PDF Page 3, Section H.

We did in-person scoping meetings. They were held in August of 2014 and we had extremely attendance. The council reviewed those scoping comments and provided us guidance at the September council meeting. The Snapper Grouper AP met on October 21-22; and they provided their input, and we've incorporated that into the decision document. As we go through, you'll see what the Snapper Grouper AP recommended.

As I mentioned, Will is going to go through and give us a presentation on his research funded in part by the council. We used some of our funding to support several trips. That is getting to some actual groundtruthing, documenting on the water what has been occurring. Once we go through that – and his main focus is going to be on the Georgetown Hole/Devil's Hole Area, but he has done some work outside of that area.

The intent then, once we have his presentation, as we go through the decision document, when we come to the options for South Carolina for the Georgetown Hole, you will need to take into account what suggestions and what information comes out of Will's presentation. The idea then is we'll walk through the decision document and review the actions and alternatives, select preferred alternatives if appropriate.

Where we particularly need some guidance as we go through – and some of those areas you asked us to look at, some of them are large and we've broken out some subalternatives; and we need you to at least give us some guidance on approximate sizes of areas that you would like us to look at. The intent would be, then the IPT and our staff will do the detailed analysis between now and March and that would come back to you at the March council meeting for you to approve for public hearings.

We will also have an appendix that will be completed for March that will describe how we're going to monitor these areas based on using citizen science. Ben is attending a Citizen Science Conference that is being held in February in San Diego, California. This will involve the fishermen in the process of monitoring these sites. It is something that Will has worked on extensively.

This will give us more buy-in. The fishermen will be involved in the monitoring. They will see the monitoring; they'll be part of the monitoring; and they'll be able to observe firsthand what is happening in those areas. The idea again, as I said, is to review a document at the March meeting. You're scheduled to approve for public hearing.

We would propose conducting a series of webinar public hearings in addition to the in-person public hearing to be held during the June meeting if we keep with this schedule. The public is becoming more comfortable with these webinar hearings. I think Amber surfaced this some on Monday, but the Atlantic States Marine Fisheries Commission has been very successful in doing this with listening stations where they designate a place in each state where you would have a council member or two there and the public can go there and listen in on the webinar and participate on the webinar at a site where you have some council members that they can also talk with.

We just see looking to the future, the budget and time considerations, that this would be a good test case to see how well this process works. Again, the current timing is for you to give final approval, assuming we meet all of that, either at the June meeting in Key West or the September meeting in South Carolina. That is a quick overview. We'll get Will up here to go through his presentation and then we'll come back and go through the decision document. Will's presentation, we had an earlier draft of it that was sent out, and Mike just sent around the revised presentation.

DR. HEYMAN: Good afternoon; thanks very much for having me. I am delighted to share some of what I have been learning along with colleagues in the commercial and recreational snapper grouper fishery in the South Atlantic. Without further ado, I'm going to talk about predicting and verifying the locations of aggregations in the South Atlantic.

It is clear that if we knew where they were already; this whole process would be a lot easier. First I want to thank a variety of people that provided support and institutions, including obviously this council, but also received a lot of support from MARMAP and the Gulf and South Atlantic Fisheries Foundation, from Pew Charitable Trust, some private foundations both in Washington and in Galveston and got some recent support from NOAA's Saltonstall/Kennedy Program – though it is not directly supporting this; it comes together with that – and then most importantly the fishermen who let me come on their boat to work with them, Jack Cox and Mark Marhefka.

Anyway, if people do have questions or clarification questions particularly, feel free to ask them along the way. Again, one of the things that I thought was really important was that we just needed to develop and test methods to actually try to predict and verify these aggregations through cooperative research with fishermen in this region.

We'd like to find the aggregations, we'd like to verify their presence; but before we do that, we actually have to come up with techniques to go about doing that. There has been a little bit of work through the years but not that much and not that comprehensive. What I realized is that I think we really need to develop a comprehensive approach and really get fishermen involved as they've got so much time on the water, so much experience and have probably seen these things in other places and other times.

Ultimately, what we're trying to do through this thing is a couple of things right. Obviously, if we can find and protect key aggregation sites, that is an obvious management contribution; but at the same time we really want to be able to inform stock assessments. Some of the data that gets

collected for stock assessments doesn't necessarily include the kinds of information and the kinds of places and times that fishermen get to because the sampling takes place more in the summer months than the hard winter months when fishermen are out there.

Traps don' work on shelf edges, et cetera. We will get into more of this detail. Ultimately, by monitoring these sites, could this set of techniques provide kind of an alternative data stream to manage these fisheries? And just as a quick aside on that; the idea being that salmon fisheries are very well managed because the salmon all come to the river to spawn, and you can count them there.

Well, snappers and groupers often come to specific places and specific times to spawn. That's a real nice place to collect information about the population rather than going out all over the ocean hoping you might find them type of thing. Anyway, that's the simplified version of thinking that. Ultimately, this hopefully will lead to kind of a participatory, adaptive ecosystem-based management set of practices.

In terms of context, I think you all in this room probably know this far better than I; but I think we have seen in large part declining stocks of snappers and groupers in the South Atlantic up until fairly recently, I'd say. We've got a mandate to end overfishing. We've got two species that are in apparently pretty rough shape, the speckled hind and the Warsaw grouper.

Incidentally, it looks like the listing for Nassau grouper is going to go through for ESA; and from the whale discussions, it would be tough for all of us if speckled hind and Warsaw went the same way. Anyway, we saw the 240-foot closure enacted and then removed. Then we saw the Expert Workgroup come up with a variety of ideas for, hey, can we come up with some areas that might serve as protected areas to help mitigate some of the damage on particularly Warsaw and speckled hind and particularly if we can find the places where those fish spawn.

Well, that process is still underway. I think that anybody that fishes in the region might agree that at any time – I call it the hammer of regulation, but, I mean, the reality is that with these two species in the shape that they're in, it would be wise to take as much proactive action as possible. I'll just leave that there.

This is a rapid-fire and lots of details left out type of pathway, but ultimately I think that is why we're on this road towards trying to find SMZs or special management zones to protected spawning aggregations particularly of large groupers and snappers, hopefully Warsaw and speckled hind. To get into that, everyone kind of bandies about these terms; but I think as we get into it, it is pretty valuable to actually define them pretty carefully.

Spawning and spawning aggregation are not necessarily the same thing, right? You can have an aggregation like a big school of jacks, but they're not spawning. You can have spawning in just a pair of fish. Okay, so a spawning aggregation is when you have both. You have a whole set of fish from one species that have come together in high densities in one little place, one little time, all for the express purpose of spawning.

I think as we look through that you'll see that those definitions become pretty important. Again, in terms of prediction and verification, this is tough. George Sedberry has done a tremendous amount of work on this coast trying to find these things. We have got some clues from other areas, but again for the South Atlantic we know of Riley's Hump as a multispecies spawning aggregation that has been documented and protected and now is coming back in a beautiful way.

Other than that, we really don't have a whole lot; and so the idea was, hey, let's take advantage of all possible available pieces of information that are out there. We do have some idea on when the seasonality is based on some of the MARMAP data and some published studies on this. We've got ideas of where the general areas for these things might be based in part on anecdotal information.

We've got some clues having to do with geomorphology that I'll get into shortly and then some spawning signs that we can look at underwater. Obviously, if you see spawning like you see in the picture to the right, you know they're spawning and you know it is an aggregation and that is pretty obvious.

Unfortunately with the populations beaten down a little bit of some of these fish, the density that we might expect is not kind of a pristine density; so even if we see an aggregation, it may not be a full-blasting aggregation. It may be some relic or some piece of an aggregation. Again, this is just in the context of trying to understand what we're looking for and what we see and what those clues mean when we see them.

Again, what constitutes verification; divide that into both direct and indirect evidence, and for direct evidence you only have three. You either document actual spawning underwater; you see the release of gametes underwater; or, using histology or you can actually do some in the way of macroscopic observation and looking at the gonads when gonads are hydrated. Female gonads are hydrated; they must be released in 24 hours or less.

If you find a fish in a location with hydrated oocytes, that pretty much has to be where it is spawning and when it's spawning. Again, that is really best verified using laboratory histological work. Similarly, with histology you can look at the presence of post-ovulatory follicles in the gonads. This is not my expertise so I'm not going to get into it, but you need a lab to be able to look at those things.

But we can find some indirect evidence in the field. We might see, for example, courtship coloration or courtship behavior between fish. We might not actually see them spawn; but if we see courtship behavior, aha, maybe it is coming soon. A lot of these fish will begin courtship days and weeks before they actually commence spawning.

Similarly, if you catch in one place in one time a whole lot of female fish with very large, ripe gonads, maybe not hydrated but large, full, ripe gonads, that also might be an indication that, umm, let's see, we may be indeed close an aggregation site or an spawning aggregation site and time. Males, by contrast, are far less diagnostic than females; and that is why when people – Nick, for example, mapping out the MARMAP data, when say this this is a spawning-condition

individual; spawning-condition males occur all the all over the place, but it is really the females that are much more diagnostic of when a breeding aggregation is likely to be occurring.

So, again, how do you apply these techniques? Some you can do on the water; some you need the lab. I talked about the two that you need in the lab right there. Again, thanks to South Carolina MARMAP, Marcel and his team, who have been working with me directly to sample the fish just as they come off the boat and put them right into their system in terms of all of the normal measurements that they take on all the normal samples that they take; the fish that we're collecting through the commercial industry are going through that same process.

They're doing all the lab work; they're doing all the age-and-growth work, et cetera, so that has really been a lovely collaboration and I thank them. Again, on-the-water gamete release like we talked about; a high percentage of late-stage gonads and then video of courtship behavior and coloration; and again anecdotal information.

Just because fishermen are out on the water so much, if they say, hey, you know, I don't have the video but I did indeed see, for example, this courtship behavior or this or that; those are valuable indirect on-the-water observations that we can use. For gamete release, again, big squirting gametes, pretty easy to see – here is a photograph of some hydrated oocytes just about to be released. Sometimes you will see the fish actually releasing eggs.

As you bring it up out of the water, it will be releasing eggs through the gonopore. Again, that happens in a 24-hour window or less and is very diagnostic. From a seasonality standpoint, again when I went after this, in the beginning I was trying to figure out, well, when might I expect fish to be spawning in this region and so quickly tried to compile the available information and realized that it was very scattered and didn't exist in any one place.

I was fortunate to have Dave Wyanski at MARMAP and Nick Farmer and others basically comb through all the existing documents that are available and we put together collectively this table that really helps to describe the best available information about the spawning seasons for many of these fish and the actual key peak spawning time indicated in black and the general season indicated in gray.

You can see a wide suite of species there. It is obviously not the entire group in the complex, but gives you an idea and also gives you an idea of how widely spread they are through the year. A spawning season closure is tough because if you want to protect this species, then the spawning season closure will be at certain times; so they're really spread out through the year I think is the one thing to notice there.

Then, as I said earlier, the other thing that is difficult about trying to characterize these aggregations which occur at these times is that the bulk of the sampling, like I said, takes place between mid to late April through mid-October with the biggest concentration of that sampling happening in the summertime; so things that are spawning in February or March are not even going to get picked up by that set of data; and yet fishermen are out there working at those times.

We chose a variety of sampling times. We did a trip in February, April and July in South Carolina and then another quick trip in North Carolina this past year. Those are the data that I'll be talking about today. Again, there just haven't been many studies on this in this region. Here is a few of them. There is a couple more recently, but there are not much that has been compiled; so we're really scratching in the dark a little bit and so, again, trying to use any possible clue we can.

Well, I came at this from further south. The bulk of my work has been in the tropics, in the Caribbean, Belize particularly, and Mexico and other places. In those areas we find that geomorphology can really be used as a predictor of where multispecies aggregations sites occur. I say that based on a lot of data and a lot of published papers, and I'll give you some examples.

But, importantly, it doesn't describe all of the variation that is out there; because, yes, if you find an area that has distinct geomorphology – and I'll describe what those places are in just a minute – if it has this very distinctive geomorphology, it is likely to be one of these primary spawning sites where it is used very, very often by lots of species and by lots of individuals at one particular site.

Then there are secondary sites which may occur at some shapes and bumps that are similar but not as pronounced; and those will get used by some fish some of the time. They're still spawning areas and they're still spawning aggregation areas; but I think our goal in this process is not to try to protect every area that is a spawning aggregation but instead really try to drill down and figure out which sites are primary, which are those sites that are really important multispecies sites.

When I talk about geomorphology, here is the map of the spawning sites in Belize; and you can see the boxes are around each of the spawning sites. These are offshore atolls. This is the barrier reef coming up here. What I want you to notice is that along the reef, where the reef bends very steeply and where that is a shelf edge, that is where you're seeing these primary aggregation sites; bends at drop-offs.

That has been so diagnostic that we're actually able to use that as a predictive model, using satellite images and going to these places at the seasons and time of month and year that we expect and actually predicting and verifying aggregations that were not known exist previously. I have done that now three times in Belize and four times in Mexico and once in the Cayman Islands and it just seems to work. I was interested in applying a similar model for the South Atlantic. Here is a close-up of those actual promontories. Okay, you can see there are big bends in the reef where they're dropping off into very deep water, very steep bends, steep, vertical and horizontal.

The suite of species that are spawning at these places is enormous. All of the large commercially important snapper and grouper species that we have in the Caribbean tend to migrate, aggregate and spawn at these types of places and then disappear. I said, well, gee whiz, if we can find something similar in the South Atlantic, our life would be easy.

George Sedberry said, "Good luck; I've been looking for 20 years. Good luck, it just doesn't happen that way." I respect that, but it didn't stop me from looking. When we look at the West Florida Shelf, there are aggregations of gag and scamp that Chris Koenig and Felicia Coleman have described along with fishermen on those coasts.

You can see, again, the geomorphology. In this case it is a convex, curving shelf edge; but in addition there are these little bumps and humps or knuckles along that shelf edge. It is in association with those lumps and bumps on that convex shelf edge where these gags and scamps are aggregating to spawn on the West Florida Shelf.

Similarly, at Riley's Hump we've got a massive, curving shelf edge. Fairly near to that shelf edge, the Dry Tortugas we've got some humps and bumps. The mutton snapper and cubera snapper and other fish that are aggregating at Riley's Hump are associated with these features there as well. As you move further north, though, and you come around the corner of Florida, the pattern changes quite a bit.

The suite of species changes, as you know, though there are some overlaps; but the geomorphology changes, the suite of species changes and it is a much more temperate and variable environment; so we can expect that, yes, it will be different. But again let's start with what we've got; and one of the things that I think was really valuable was when we got into a room with some of the region's expert fishermen, long-time fishermen that have been working this resource for a very long time, along with scientists.

We sat together and tried to figure out, based on geomorphology, based on season and really based on where these fishermen have seen things and where some of these spawning aggregation sites might be. We identified several, including the Georgetown Hole or the Devil's Hole, the Western Dry Rocks and Warsaw Hole in Florida; and people described these anecdotally as multispecies spawning sites; so that's a good place to start.

They also described them as places where speckled hind and Warsaw grouper were likely to be found. Again, some of the other clues, some of the other things that we're looking for, if you're looking for courtship coloration and behavior, let's look at some of the existing information so we are knowing what we're looking for when we go down to look in the water.

For Nassau grouper, they typically look like that normal fish over there on the far end side; but when they're getting very close to spawning, they all take on this bizarre bicolored courtship and spawning coloration and then they'll move into their spawning activity. When you see that, you know that you're at an aggregation site and you know you're at an spawning aggregation site; and it is very close.

Well, do we have similar information for the species in this area? Well, as it turns out, Grant Gilmore and Robert Jones in a submarine back in the late seventies and early eighties dove up and down the South Atlantic Coast looking for these things and looking along the shelf edge and trying to characterize what they say; and they described a variety of different – what they described as courtship coloration and courtship behaviors in gag and scamp in this really important paper that really hasn't been one-upped in this region since '92 when it came out.

What you'll see is kind of the normal colorations for the gag grouper, but then you'll see what they describe as courtship coloration, which they described only seen in very large fish, a meter or more, and typically only in male fish. Okay, we know that those are going to be females first and transferring into males. I thought that was interesting; and let's put a pin in that for a minute.

The only thing I wanted to point out, though, is that when you go back, these Nassau grouper, when they're in this courtship coloration, it is an ephemeral coloration. If you scare them or if you, for some reason, disrupt their pattern, they will drop that like, oh, just kidding! They'll take off those robes; and so it is a very ephemeral color that they can flash on and flash off when they're in courtship behavior.

That said, the gag, blackbelly and blackback phases; though he noted them as courtship coloration and spawning coloration, Gilmore and Jones said they're not ephemeral. When you bring those fish up, that is what they look like. That is a little different, but, anyway, let's put a pin that. Scamp he describes a various coloration, color morphs in scamp as well.

We're pretty familiar particularly with the top one, maybe a little bit familiar with the middle one. I'm not sure how many of you have seen a scamp that looks like that. Has anybody see scamp that looked like that; the one on the bottom, the gray head? These are also described as ephemeral courtship colorations, particularly these large gray heads again described typically in situations where they're kind of haremic.

They assume that they're males, but they're not sure; but they're certainly surrounded by eight to ten or more smaller fish, typically the darker brown phase fish, and you can see aggressive behavior. All of this was described in the '92 paper; but they also described that indeed this courtship coloration for the gray heads was ephemeral like the Nassau, not solid and staying there like in the blackbelly gag.

Then where and when are you seeing these things? According to Gilmore and Jones, courtship and other display behaviors were observed during the same period and same time in ripe individuals of black sea bass, snowy grouper and speckled hind along with the gag and scamp aggregation.

The primary paper was talking about aggregations of gag, behavior of gag, aggregations of scamp and gag, all these colorations; but this is kind of a side note to say that when they did see these they also saw these other species nearby, which to me, I said, well, I'm not surprised. I mean, knowing what we know from other areas, it wouldn't shock me in the slightest to see multispecies aggregations.

Again, if you go looking for aggregations of speckled hind, an easier way probably to find them would be to find aggregations of scamp just because they're more common. Also, a question of fidelity, which actually I was speaking with Bonnie over breakfast about, which is pretty funny, found this little quote that indeed they found some fish that came back to the same site both a year later and then a month later.

Again, that is what we're seeing in the Caribbean situation is that there is a tremendous amount of site fidelity. Fish will leave, migrate far away from the site and then come right back to that site for spawning the following year. They noted that as well in '92. All right, just for gonad development stages, I think people know this pretty well, but again it is important to understand what is diagnostic and what is not diagnostic.

If we've got tiny little gonads in either males or females, early development, no venation, you're really not anywhere near the time or location of an aggregation. But when you get very ripe ovaries, particularly, with this venation where you can see actual eggs, then you're starting to say, aha, these are late-development-stage eggs.

This is potentially getting closer to an aggregation; let's look at it with the lab, use the histology to really check it more closely; again, hints. Then from the late development stage, which they can be in depending on the type of fish and depending on whether they're batch spawners or there is a lot more variation in life histories, and what these gonads look like than I'd care to go into at this point; but, at least you know that you're getting somewhat diagnostic with some late development females.

But when you get these hydrated oocytes, like I said before, you know there is spawning occurring. With all that, it is like, okay, well, how can we use that to come up with techniques to try to figure this out? Basically, I tried to do a couple different things. One; fishermen are out there fishing; they're catching these fish. We can pull them up and look at the gonads.

They're doing that, anyway, and we can look at catch-per-unit effort while they're doing that. If I'm out on a commercial boat in a season when they're expecting to catch these fish and they do catch these fish and we open them up, from a macroscopic standpoint we can tell you, ah, these fish are definitely not even close to spawning or maybe they're getting close; or if we get lucky, we would actually see hydrated oocytes.

That is one technique right there; just visual observation; but then taking those samples and dropping those fish off with MARMAP, who will do the full histological workup subsequently. Similarly, if you want to take observations of fish underwater, that's nice to do when it is like 90 feet deep and 83 degrees; but it is not so nice when it is 300 feet deep.

And so I just said, well, how are we going to do this, let's try some GoPro – slap some GoPros onto commercial rigs, right on the L-bar or right on Jack's rigs and basically hooked up these $250/$300 GoPro cameras and dropped them down to see if it would work. We explored a variety of different ways to do that, different techniques; and if people are curious, I can go into kind of what works better than other things, but it really works pretty well.

I will be showing you some of the kinds of footage that we're getting and some of the signs that we're picking up from that. Meanwhile, as we're collecting these data, we're taking GPS points. We're mapping it and also taking advantage of in the cases where they do exist, lovely, multibeam bathymetry data; because you can really see what the bottom looks like if you've got good bathymetry data.

If you don't, many of the people I fish with and work out here can't afford not to have pretty high-end sonar systems that are capable of mapping on the fly as well. Marhefka has a really impressive system that can do that. This is the drop-camera setup. You can see just there is Bo Von Harten fishing. Pulling up a snowy right behind him is a bandit rig and dangling from the bandit rig is this L-bar with the weight on it and a GoPro just slapped right on there; and that is how we did this.

Anyway, these are the four trips I mentioned; three at Georgetown Hole, one on the North Carolina Shelf. When you take a look at where those are; these are all the GPS coordinates that I took in little black numbers. When you get in here, there are so many that you can't see them; but again this Georgetown Hole area and a little bump to the north of Georgetown Hole we looked at as well; and again along the North Carolina Shelf

At long last, let me start to tell you some of the things that we found. First, from an anecdotal information standpoint, I think it was worthwhile really going through the kinds of data that we got from the MPA Workgroup and also the kinds of information that I was getting when I had stopped at Murrells Inlet and talked to Phil Conklin and others and as I looked around and found some things.

This was a pretty neat thing that I found in a book that was published in 2006 and blah, blah, blah; one of Barry's dreams is to catch a Warsaw grouper. "In my years as a commercial fisherman, I had caught more giant grouper on hook-and-line than about any other fisherman on the east coast. In fact in the 1970's" – does anybody know this guy actually, by the way, Frost?

"In fact in the 1970's and eighties I caught over a hundred of these monstrous fish, which averaged 175 pounds. Ten were over 300 and one was over 450 pounds". He used a 15-pound live mahi for bait and 300-pound test wire line. He says there are several good spots. "One of them is Georgetown Hole, 62 miles offshore, which we used to call the Devil's Hole because of the number of boats and fishermen who had disappeared without a trace while fishing out there, including some friends of mine. Barry knew that I once had caught 28 grouper that totaled 5,000 pounds in one night at Devil's Hole. In another I caught 14 and still another 9."

I mean, I'd call that some pretty solid anecdotal information. Even if it is not a spawning aggregation – it says nothing about spawning – that kind of density of large individual groupers that recently in one little place I find significant. Similarly, in talking to Phil, he talked a lot about catching Warsaw groupers out there the size of Volkswagens; and I can easily believe it.

Anyway, there is an old picture there. I don't know if this will play or not, but this was as video that Chris Conklin shared with me that is on the web. Maybe you've all have seen it before, but it blew my mind – shot off of Murrells, a fishing trip in 1975, and again I'm showing this as anecdotal information for spawning in that area. Got to love the 1975 styles and haircuts and stuff.

Anyway, they're getting ready to go out on a fishing trip here; bringing all their stuff on board, blah, blah, blah; and here is where they're bringing in their catch – 1975. This is not long ago;

so, yes, this is information about Georgetown Hole that is – and again not all of this is directly Georgetown Hole. It is anecdotal information; take it with a grain of salt, whatever, but this is what we're working with.

Here when you take a look on the map, this is kind of the Georgetown Hole area, southeast of Charleston. When you zoom in a little bit more closely, you can see it there; zoom in a little bit more closely, the area that is called Georgetown Hole, as far as I understand, is right where this big elbow is on the shelf edge that looks a heck of a lot like many of the areas that I had seen before. All right, let's keep looking.

Fortunately, in addition to just the CRM, the coastal relief model, 90-meter data, there is also – thankful to Leslie Sautter at the College of Charleston there is multibeam data at that site, which is has much higher resolution, down to a meter, that shows that site in much more detail. On the right you can see the different possible configurations that we came up with as part of the MPA Workgroup, all of which take into account this elbow in terms of that is where people were saying where the real action is.

Mark took me right out into this area and we started to sample, fortunately, with a permit so that we could keep things that were out of season. Obviously, you're not going to look at the gonads of a fish that you can't keep; so the permit that we got allowed us to keep these fish, bring them directly to MARMAP for this specific purpose. That way we could catch groupers out of season in February and some of these species that are not done; and so this is what we did.

We just went to these places, we dropped cameras, we fished at these sites, we brought the fish in that we caught from those sites in an effort to try to verify the presence of aggregations in this area. Well, one of the things I learned very quickly about this area in part, just looking at the bathymetric maps, but then in talking to people and particularly being out there, that when you look at it like this, you see this big elbow; and it looks kind of cool and there is a big, sharp elbow, and that's it.

Well, when you go out there and you start to fish, you realize it is a lot more complicated than that. Here is the kind of generalized elbow that you're looking at; but then when you look more closely down here, okay, this area is the same as this area right here – that is actually kind of a channel and a hole that digs way in there.

So right at the tip of that promontory now we've got this deep hole that is dug way in. Then just north of that we've got this big plateau up on this side. So we've got a real steep shelf edge on the outside here; another real steep, calm or consistent long shelf edge on the south edge and this very jarring set of topography in here and the shelf edge up above.

This is what I understand in terms of names; some of these I've made up for my own purposes; some I'm getting from people who fish there, but it is divided up into not just Georgetown Hole but actually Georgetown Hole; and to the north this ledge, the Cubera Ledge. If I understand this correctly, this is obviously worth looking at more closely with more people that know this area real well.

But, anyway, you can see the scale on this thing; and we sampled the heck out of all different bits and pieces of this to try to understand – because, again, I'm used to finding an aggregation in something the size of this room, maybe twice the size of this room; so you think, well, Georgetown Hole, that is a massive area, so you can't just expect you're going to drop in and find something.

But, again, maybe it is not going to be as tight as what I'm used to; so we sampled all over the place to try to understand the dynamics and try to understand where these things might be occurring. So, did we find any evidence; let's take a look at – and I'm going to put this in quotes, because this is your test to see what you think about the evidence that I've come up with based on what you now know about what you can trust, what you can't trust, et cetera.

Here we go! Here is a fish that we caught on the 17th of July; an American red snapper. You see some nice big gonads; late development stage. Are they hydrated? No; okay, does this tell us that there is a spawning aggregation there? No; but it does tell us that there are some fairly close to reproductively active fish in that area at that time.

We also know that mutton snapper do spawn in July down in Riley's Hump – mutton snapper, that is, and red snapper as well. So, anyway, that is one piece of evidence; again, not like a smoking gun but some indirect evidence that we're going to move forward with. Now, this was interesting. A couple of days later a yellowfin grouper – now, we're still waiting for the histological workup on these, but the eggs – and I don't know how well you can these or whatever, but these are much closer to being hydrated than that last set were and indeed may be hydrated.

I'm really looking forward to getting the histology on this, but this is much, much more close to spawning than that first fish and consequently much more diagnostic or much more powerful evidence this indeed might be some spawning taking place right here at this time. Now let's take a look at some of the video information.

I've got largely got stills from the video, but I'll show you it is easier to see when they're moving. I'll show of you that subsequently, but I've pulled a couple stills so that you can take a look. Again, from the MARMAP data, we're pretty certain that the scamp are really having their peak around April, which is exactly when we were there.

When we dropped these video cameras, we started to see some fairly extensive aggregations of scamp. I'm not going to say tons and tons, but a good 10 or 12 fish all in one spot, multiple different colors. And I said, well, that's interesting. Again, is it super-diagnostic; is this direct evidence? No, this is some more indirect evidence at the right time of the month, at the right time of the year. It's interesting.

But then we started to see some of these gray-head scamps exhibiting courtship behavior and coloration. This is the picture from Gilmore and Jones that I've just kind of pasted in next to these fish. I don't know how well you can see that, but to me those look very much like these gray-head scamp. When I'll show you the video, they look a lot more clearly.

So here we are again, 5:20 p.m., the time of day when you're likely to see spawning occurring, kind of near sunset. We're seeing this real gray-head phase; it is an ephemeral phase; it is probably associated with courtship; and we saw this in several different places at several different times all in that Georgetown Hole area. Multiple different drops we were documenting these white-faced fish.

Here is another one; you can see it kind of close-up; and again the diagram to the left and the still shot from the photo there. So, it is interesting. Again, is this a smoking gun; is it definitely a spawning aggregation? I can't say that yet, but I think we're just building more and more information that is difficult to contradict or deny. Here we go again, another gray head and another scamp on the 25th of April. This is actually in the morning; 86 meters of water. You're kind of getting pretty astonishing footage 86 meters down at 7:30 in the morning.

I was surprised to have that much light and be able to see this kind of courtship behavior at that time. Here we are 42 meters, a little brighter. When I today mapped out all the sites where I saw courtship behavior in scamp in relation to that elbow, those are mapped with yellow stars. The red dots are areas where we took observations with GoPros, but we didn't see scamp courtship behavior. Anyway, it is just the first set of samples.

There are obviously gaps in where we haven't sampled; so again just like with the MARMAP data, just because you see something in an area, it may be more diagnostic of where you sampled rather than the fact it is the only place something occurs. Again a caveat; and yet we are seeing a lot of this behavior lined up very close to that promontory and to the very similarly shaped, though not quite as distinct,, elbow to the north.

So, go back to the literature and try to figure out, well, how diagnostic is this gray-head phase? I know if I see Nassau grouper in bicolor phase, that it is super-diagnostic; so let's go back to the literature and see what Gilmore and Grant said, see what Schobernd said in 2009 when he was looking at these things.

Anyway, how diagnostic is this gray-head phase? Well, these guys were seeing them in July and August, which is outside of what we think of as the spawning time for these fish in the Carolinas; and yet they were down in Florida. I'm just on the fence how diagnostic this behavior is. I think it is indeed diagnostic of courtship. How diagnostic, that it is definitely an aggregation; again, I'm just trying to be as – I wish I could be more authoritative on the subject, but I want to be as honest and clear as possible with the data that we do have.

Here we got a little bit of data and not nearly as much from North Carolina. Again, it was only one trip, just a couple days up there, but I wanted to see how this technique would work with other fishermen and other boats, other locations. There we were with Jack Cox and his crew on the North Carolina Shelf; those sites there where we dropped GoPro cameras. This was in July.

And, this was interesting; we pulled up this jack and, aha, look at this, milk being released. You see this male gonad, very ripe, obviously releasing, but we all know don't get tricked, okay. It may be significant but it is probably not as significant and certainly not anything close to significant as if it was a female in the same condition. So, again, this is what we're looking at.

Here is a mutton snapper that we caught up there. Its roe was very late in development; and I found that interesting. Again, this was July. This was the fish I was thinking about when I first opened that slide. This is a mutton snapper. They are known to spawn in July down in Florida; but a fish that ripe is not likely going to want to swim all the way to Florida from the shelf of North Carolina with that much eggs.

It is probably much more likely to be spawning up that side. So, again, is it right there; not diagnostic enough without the histology or without seeing hydrated oocytes. Finally, here we saw one of these gags – you might call it blackbelly; you might call it blackback – gags, 48 meters of water. Again, if you're Gilmore and Jones, you say, aha, that must be courtship coloration; but we all know that it is not an ephemeral courtship coloration.

When I took this piece of information to Mark Marhefka, to Jack and last night to Mark Brown, they all confirmed what I gathered to be the case; and that is when gag get big, they turn male and turn dark and lay on the bottom and it is not an ephemeral coloration. We don't see that many of those type of fish around because they've been fished out and the population has been really depressed; but back in the day when you caught those kind of fish – and correct me if I'm wrong or if somebody knows different, but I thought this was a really neat contrast between what we think of as scientific information versus what we think of as anecdotal information or fishermen information and how the two – you really need to work together to make sense of all this.

When I showed this to some scientists, they got super-excited. Having the Gilmore and Jones, they said, "Wow, this is an aggregation; this is great stuff." And I said, okay, well, maybe; and so I'm just a little – I don't think so anymore. It may be. If you find enormous blackbelly gags, that is a good sign no matter what; but if you don't find them with other fish or – anyway, I think you see where I'm coming from.

Again, it just speaks to the fact that there are lots and lots of sources of information and we're just scratching at the surface of beginning to understand this phenomenon in this area. We are getting a lot of signs that are interesting and potentially valuable clues worth following up. I guess what I'm hoping is that we collectively, between fishermen and scientists and managers, can work together to try to figure out this dynamic using kind of a collaborative approach similar to what I've described.

Gregg asked me to put this in here. I think if we are going to do this, we kind of need something pretty standardized in terms of a protocol. I think that we need to have more observers trained. I would love to be on every boat at every potential aggregation site up and down the South Atlantic Coast during every potential month; and that is not possible, unfortunately.

We need more on-the-water observations, more boats, more places, more times. Then this kind of picture will get a lot clearer. MARMAP has processed all the histology samples and age-and-growth samples at their expense – thank you. If we ramp this up, they're not going to be able to do that. That is a clear funding need.

I've got a bit of a start on this, but I think we need a pretty robust database to handle to this kind of information because you're matching GPS locations, bathymetry data, colors, time of year, gonads, histology. They're all in different places; they're all different types of data. You need to be able to kind of combine them and lump them effectively, and a database is kind of the only way to go about that. Obviously, we need some more analysis as well.

I think just for an FYI, this is kind of a look at the future. The third point I think I've just said; greater participation, more fishermen, more sites and more times; but there are some interesting technologies that I want you to be aware of that may be appropriate for this as well. One is passive hydro-acoustics.

They've found in yellowfin grouper and Nassau grouper and black grouper and obviously a lot of the drum species; that they make a species-specific courtship sound. You can listen with a hydrophone and hear the sounds of spawning and pick that up using kind of a remote-sensing, long-term data recorder. You put it under water if you find the aggregation site.

You can leave it there and then download that data and see, ah, look, big spawning activity around this moon, this date, et cetera. If we find these places, this is probably a good technique to use in addition. And, similarly, at SEFIS Todd Kellison, working mostly with Chris Taylor; they've come up with this magnificent dual-beam bathymetry deal that can map biomass in space and time very, very accurately; not only the biomass of a school of fish but also the sizes of those fish.

I think if we find and pinpoint one of these places and get some kind of system like that and basically mow the lawn over it on a regular basis, just like you would do for bathymetric mapping – instead you're mapping where the schools of fish are in space and time on regular basis – this may also lead to a technique that maybe could work. Again, down the road. That is all I'd like to offer. If anybody wants to see some of this video, I'm happy to show it. We can also do questions. The floor is back to you.

DR. DUVAL: Thank you so much, Will, for coming here and making this presentation. This is kind of my dream for how cooperative research occurs in the future. I think there is only going to be – well, we would all like for there to be more money for science and not less; but I think the reality is we have to be much more efficient in how we collect the data. This is one of those things that I hope continues to build. Are there questions for Will about the presentation; and I'm sure everybody would like to see some video. Chris.

MR. CONKLIN: Will, that was an intriguing presentation. Did you guys happen to collect any samples of the speckled hind or Warsaw grouper in any of your trips or what kind of observations did you get from those?

DR. HEYMAN: I didn't see any on the video, but I'm no expert. There are some groupers I saw that I couldn't identify. We caught quite a few – not quite a few; I mean less than 20 range, but that's what I'd call quite a few. None of them were in spawning condition. One of them was a juvenile speckled hind, about five inches long, which was really nice; because if you find small one, you know they've got to be breeding somewhere some time. That was kind of a nice

reassuring – and they're beautiful, yellow and speckled like that; just magnificent. We caught a couple of Warsaw, some in the kind of 50/60 pound range; again, none of them in spawning condition, but they're there.

MR. BELL: Just a couple of quick questions. Related to the West Florida Shelf work that has been done – and I know I've seen some of your earlier stuff from in the Caribbean where you get these really impressive aggregations; but were they seeing – in the West Florida Site with gag and scamp; were they seeing anything like that or was it more kind of like what you might have been seeing; they're more spread out. That's the first question.

DR. HEYMAN: Definitely more spread out; and yet it was deep enough that they don't have a lot of footage. It was mostly – the way they figured that out was with sonar and with some of that same acoustic. They don't have that much data in terms of video because they were doing ROVs, which are really tricky to go ahead and do; but, yes, what you saw was kind of clumps of fish in the spots that I showed that were to a certain degree a little bit spread out but very much concentrated compared to other areas.

MR. BELL: And related to the Gilmore and Jones work; do we know where those specific locations are?

DR. HEYMAN: Yes, he has got those all mapped out.MR. BELL: Okay, and when you guys were out there; did you work any particular moon phase or were you not?

DR. HEYMAN: I would have loved to have a search imagine detailed enough to tell me what stage of the moon would be the most productive; and we don't so I kind followed what we knew from further south, which is typically kind of after full moon and before new moon, spent the bulk of our time sampling in that time. There may be better information coming out of a deeper mining of the MARMAP data in terms of when those are likely to occur; but, no, we kind of spread it out.

MR. HARTIG: Thank you, Will, very good presentation. The scamp color phase; has MARMAP seen that in their video trap survey information anywhere? Marcel, are you aware of any of that? It seems to me that would be something that the person watching the video would go, hey, look at this white-headed scamp and then maybe write it down.

DR. REICHERT: Others may be more able to answer that question from the videos that some of my staff have read for SEFIS. Dawn Glass has done a lot of the stuff in our lab; and she said that she had seen different phases that may be associated with spawning, but maybe Todd or someone else can address whether SEFIS has seen some of that in their videos.

DR. DUVAL: I see Todd Kellison in the back of the room, a recent Snapper Grouper AP appointee. Todd, do you know if your staff have seen any such evidence in any of the videos?

DR. KELLISON: Todd Kellison, Southeast Fisheries Science Center. Nate Bacheler, who runs our Southeast Fishery Independent Survey Group out of our Beaufort Lab, is just saying that what Marcel reported is accurate for our observations as well; so some observations.

DR. HEYMAN: To comment on that; we have been looking for very different things. That was set up to quantify numbers of species of different kinds, right, and not necessarily to look for spawning – that survey.

DR. REICHERT: No, but those observations as well as some other things that the people who examine the videos noticed are recorded. Obviously, we are not specifically looking for spawning events, et cetera, so that is the objective of the current video survey.

DR. HEYMAN: Though it is a lovely data source that could be mined.

DR. DUVAL: We plan to mine every data source possible. Mark.

MR. BROWN: Will, I told you I was going to critique that; and you got an A-plus on that. That was a good presentation. I wanted to know did you record the depths with the spawning fish when you noticed the ones that were heavy with the eggs?

DR. HEYMAN: Yes, every data point. We've got weather information. Most of them we have temperature. This season I will have bottom water temperature on all of them; but we certainly have the depth and the actual location.

MR. BROWN: And were you specific for a depth range that you were trying to work?

DR. HEYMAN: Not really – yes, I mean, between black sea bass and tilefish, if that tells you. The fact that we were out there for a pretty limited amount of time. Mark doesn't slow down when he is out there and neither does Jack. You fish for what you can fish for when you can fish; and if it was too rough to be on the shelf edge, we were up on the top.

We certainly targeted those areas that he had caught more Warsaw in days past than other places. We looked at the bathymetry map, and we were kind of trying to drill some of those areas along there. But in doing so, we also, yes, kind of cruised around, up and down, to get a sense of what some of the other areas were like as well.

MR. BROWN: I've got one more question, then. We may have talked about this in the past, but I don't remember. Do we have any data or anything or any recordings from the past of any spawning of Warsaw or speckled hind anywhere?

DR. HEYMAN: The best I know is the little thing I saw in the Gilmore and Jones paper that said they say courtship behavior; and whether that video still exists somewhere – does anybody know of any others? I'm not aware of any others.

DR. LANEY: The only other thing we've discussed, Will, is possibly going into museum collections and actually looking at those specimens to see if we could pull out specimens with hydrated oocytes or something like that. The amount of effort required to do that, given the likely fact that there is not very many museum specimens to start with, would take a lot of time.

I don't know that it's worth it, but we have talked about mining that data source as well in the past.

MR. PHILLIPS: Maybe I just missed it, but what was the – I see you've edible eggs and not edible eggs, too watery. Why do we make these distinctions?

DR. HEYMAN: When they're too watery; they're only like that for a real short window; and that's the spawning window. If they're edible, it kind of tells you, well, spawning is probably going to take place in the next couple weeks, maybe as long as a month. Maybe they're a batch spawner, they spawn every month. But once they're watery, that is a big bingo, take a GPS position. Whenever you see watery eggs; that is bingo. They're only hydrated for like 24 hours; so that's a direct sign of spawning.

MR. HAYMANS: Just an opinion question; so Grays Reef has some live video that is out there now. If you were to put a video camera with a feed or even not, if even you recorded it; do you think you could – and this is building on the citizen science idea – do you think you could crowd source that video and have trained folks to search for the right fish, the right behavior, and do a mass amount of data that way?

DR. HEYMAN: Probably. I don't know about cabling and you've got to put it in the right place and all that stuff; and I think we've got a lot of work to do before we find the right site. But if we can find the right site, there is going to be a lot of people that would want to look at that, I would think, divers, students. The way it is now I'm happy to put everything I've shot online. If anybody wants to look at it and go through this stuff, be my guest.

MR. BOWEN: Excellent, excellent presentation; it was real interesting to me. A while ago you said you caught 20 or so grouper. Was that speckled hind? And you said you caught two Warsaw?

DR. HEYMAN: No, we caught a lot more grouper than that. That number was kind of the combined Warsaw and speckled – more speckled than – I am not remembering the numbers, so let me not report it between ten and twenty.

MR. BOWEN: Okay, of those grouper that you did catch; did you take them all or did you try to release them? If so, did you try some descending device? I guess if you can talk about your interaction with them.

DR. HEYMAN: Yes; so again, recognizing that, for example, for Warsaw and speckled hind our data on those pretty much stops in, what – when did they become no – '94 or something.

DR. DUVAL: They became no sale and retention in either '92 or '94; and actually it was no sale, one fish retention limit for each, but then that became no possession two years ago, I think.

DR. HEYMAN: Oh, was it that recent, okay. Anyway, there is not a lot of data on those; so when we decided this is what we're going try to do – in spite of the fact that this is the first

project in my life where I've actually killed fish primarily for the reason of science, we did. These were fish that we wanted to take in.

We wanted to do full histological workups on every fish that was potentially relevant and we took them in. Incidentally, they were all worked up at the MARMAP Lab. If they were in season and legal, they were worked up at the MARMAP Lab, brought back to Mark who could sell them. If they were not legal, they were donated to a food bank.

MR. WAUGH: Thanks, Will, for this work. Will has put in a lot more time above and beyond the contracted amount; so thanks for that, and thanks to Mark and Kerry and Jack for the time on their vessels. That is a good start to this citizen science. I think a special thanks to Marcel and the MARMAP team.

We made one trip out there when they were offloading; and there was a bunch of MARMAP folks out there. They've just done a tremendous amount of work working up these fish, and that is continuing. Thanks to the council for chipping in some funding. This amount of research wouldn't have been possible without us contributing some of the money.

Will, I had hoped someone else was going to put you on the spot, but nobody seems to. We've coughed up money for this work, so what recommendations do you have off of the Georgetown Hole area, specific recommendations? I know we've had some discussions about what is called the Georgetown Hole and perhaps using that as a spawning SMZ and leaving the Cubera Ledge, that area open where it is easier to fish; and that may be a good way to balance some of the impacts for fishermen. What sort of recommendations do you have that we could use for specific areas within that Georgetown Hole area?

DR. HEYMAN: Thanks a lot! No, that is an excellent question. I don't feel comfortable drawing lines on maps. I don't think that – let me say it this way. If we draw a box that is 50 square miles, then there will be no fishing allowed anywhere near Georgetown Hole. The little bit of on-the-water enforcement that we have now from people that fish out there will go away, because they're not allowed anywhere near there.

If we put a box that's a mile by a mile, it probably so small that it may or may not – given that these things are a little bit more spread out than the aggregations that I'm used to, it may be too small. But I think, if possible, if can follow a procedure like this and really look closely at where it is possible to fish, where actual spawning activity takes place, where it is not possible to fish – and I'm glad you brought that up, Gregg, because I did indeed forget that.

This was pretty neat. I brought up this whole thing of the morphology here but neglected to mention – and, again, Chris and others who spend more time than I do can tell me whether this is true; but when we tried to fish in this hole we lost L-bars like it was going out of style. I mean, it was sharks and L-bars and wicked currents. It was just a nightmare trying to fish that hole.

It is real steep walls; they're real rocky. We lost an anchor in there. Mark was like, yes; I mean, on the super, super-flat calm days, when there is almost no current, this is where I love to fish;

and I get those once every couple years. Correct me if I'm wrong, Chris, is that your experience as well?

MR. CONKLIN: It is, yes.

DR. HEYMAN: So, again, Cubera Ledge, I got to understand, though, is where more of that fishing activity takes place. They're more further north along that wall. Obviously, it is close to the corner. It is going to be good fishing, but that whole ledge to the north is much easier to fish, it being parallel with the current, it being a pretty consistent-shape shelf, pretty consistent horizontally, just a lot easier to drift up along and fish without losing a whole bunch of tackle.

So, yes, Mark and I imagined maybe there is some spot near the corner that is really difficult to fish, anyway, that we could grab a box out of that would both take in some really valuable spawning habitat and not take in super-critical fishing habitat and also gain the support and respect of people that do want to fish in that area such that they might be interested in providing some eyes on the water. I mean if they agree not to fish in there, I'd be real, real surprised if Chris and your guys wouldn't be real upset to see somebody breaking a rule like that. Anyway, is that wishy-washy enough answer for you there, Gregg?

DR. DUVAL: Gregg is nodding his head yes. Thank you again, Will, for coming out here and presenting all this information. Unless there are any questions, I'm going to suggest we maybe take a ten-minute break and then we can come back and dig into the decision document for Amendment 36. I'm wondering if we can put the video up while we're on break so that folks can actually see that; that would be great.

We are going to start digging into the decision document, which is Attachment 7B in your briefing book. I'm going to ask Gregg to kind of walk us through this and provide any guidance that the IPT needs on things.

MR. WAUGH: This document incorporates your guidance from the September meeting. Our advisory panel had some input at their October meeting; and the IPT met on October 24th and we have their recommendations as well. This is Attachment 7B. It was included in the second briefing book that you received. The first decision point is on Page 4 with the purpose and need; but I'm going to suggest we come back to that because the IPT has recommended some modified wording.

If we include realigning that South Carolina MPA, we'll need to add some wording. I think it will be better if we come back to that after we determine whether or not we're keeping that action in this document. The first action is on Page 7. This modifies the special management zone procedure. Alternative 1 is no action; the current SMZ procedure does not allow for protection of natural bottom important for spawning. Alternative 2 is to modify the procedure to include protection of natural bottom.

Those are our two alternatives. We've got the rationale there for two alternatives. We're making clear that the council's intent is that the spawning SMZ approach would not make any

change to the existing MPAs or SMZs; and that is important. We don't want people misinterpreting that we're looking to close any existing SMZs.

At your September council meeting – well, the scoping comments, we went over those before the AP previously approved a motion supporting this approach. At the September council meeting you approved the wording of Action 1 and the range of alternatives. We're just checking to see if you want to modify that any, if you're ready to pick a preferred for any of these actions or you want to wait until March for that.

DR. DUVAL: Is there a desire on the part of the committee to select any preferreds at this time? We're looking at Action 1, modify the special management zone procedure. Mel.

MR. BELL: So this is kind of the foundation that will even move forward with this because you're basically changing the definition. I would move that the preferred would be Alternative 2.

DR. DUVAL: **A motion by Mel to select Alternative 2 as the preferred; seconded by Ben. Any discussion? Any objection? Seeing none; that motion stands approved.**

MR. WAUGH: The next item is Action 2, and this is on Page 9. This lays out how you would modify the framework procedure. If we establish areas, the existing framework again does not include modifying or establishing new SMZs. Alternative 2 would modify the framework to allow you to include modifying spawning SMZs or establishing new SMZs through the framework procedure, a faster process.

Alternative 3 would only allow you to include modifying existing spawning SMZs through the framework. If you wanted establish new ones, it would be through a plan amendment; so a slightly process, a little more public input. At the September meeting you approved the wording of Action 2 and the range of alternatives.

DR. DUVAL: Again, any desire on the part of the committee to select a preferred for Action 2 at this time? Charlie.

MR. PHILLIPS: Madam Chair, I move we make Alternative 2 our preferred.

DR. DUVAL: There is a motion by Charlie; is there a second? Second by Mel to select Alternative 2 as a preferred. Ben.

MR. HARTIG: Yes, that was the AP and that is what I was looking for. That is what the AP had – no, that's under Action 3. I guess that's all right.

DR. DUVAL: Right; the AP did not make any motions with regard to this action. They did express some concern about using an SMZ approach and not necessarily allowing for adequate public input that approach. That was the concern there; that it would be better to potentially go through a full amendment process rather than using an SMZ approach. I think Gregg tried to

clarify that. We can certainly hold as many public input sessions as we want for anything of this nature and certainly we would want to do that. Ben.

MR. HARTIG: Yes; and I would just say that I said that those concerns exist on the council as well; so if the council has those concerns and we don't think there is enough public comment, we can certainly get more public information.

DR. DUVAL: Exactly. Other comments? Mel.

MR. BELL: I'll just say it would certainly be our desire to have as much public input as possible; so there is no desire to just fast-track this to try to push something through.

DR. DUVAL: Agreed. Any other comment? **Any objection to this motion? Seeing none; that motion stands approved.**

MR. WAUGH: The next item is Action 3, establish spawning SMZs off of North Carolina. Again, this is the wording resulting from your action and what we presented to the SSC. I will show you some revised wording that we're suggesting from the IPT. The Snapper Grouper AP approved a motion selecting Alternative 2 as preferred. They also approved a motion – and this will apply to all of them – that for every square mile the council closes with new SMZs, they open at least an equivalent amount of previously closed area.

DR. DUVAL: I think one thing that I just want to clarify for the committee – and perhaps Jim can speak to this – is that the advisory panel made a couple of different motions with regard to selection of preferred alternatives under this action and I think the next action. I think there was perhaps a little bit of misunderstanding on the part of the advisory panel that we weren't necessarily asking them to select preferred alternatives; that we were providing this presentation as an update of where we were in the process.

If you'll recall yesterday from Jim's advisory panel report, they then made a subsequent motion to not make any decisions or select any preferred alternatives until they saw the document with further analysis back in April. I just want to note that for folks. Jim, I don't know if you want to add anything to that.

MR. ATACK: No, that was pretty well put. We were starting to work through it; and once we got most of the way through, we knew we were going to get it to come back to us once further analysis was done; and then we can do our preferred alternatives at the April meeting.

MR. WAUGH: Okay, what the IPT has recommended is we revised this wording – and, again, you gave us direction to look at this Malchase Wreck Area and look at the 780 Bottom Area. What we've done is restructured the alternatives. Alternative 1 is no action. Alternative 2 would establish spawning SMZs in the Malchase Wreck Area. We've got several subalternatives, and this will apply to each of these as we move through.

The first, Alternative 2A, is the size of the Malchase Wreck, 2.47 square miles. We had looked at something that was approximating the size Areas 51 and 53 off of South Carolina; but when

we were doing this at the IPT, there is no real difference between the sizes of those. So we would recommend dropping that Alternative 2B; and then your 2B would be the Malchase Wreck one square mile if you want to look at smaller area.

The one square mile is in there because that is an alternative that the AP previously recommended for Devil's Hole. Then similarly for Alternative 3 for the 780 Bottom, that area is 22 square miles; so we just want some guidance from you in terms of what smaller areas would you like to look at within that box. We would do the detailed analysis and look within that area.

If you were to say, for example, 3B should be ten square miles, well, then, we'll come back in March with that is ten square miles, picking the best area within that. If were to say 3C would be five or one, then we'd have a box looking within that area, picking the best bottom within that area as that alternative. We're looking for guidance on approving this rewording, but then specific guidance on what sizes you want evaluated for these areas.

MR. HARTIG: I think what would be helpful for me, Gregg, if we kind of looked the work that had been done so far at Georgetown Hole. To me, you don't necessarily have to close the whole thing. You could have several smaller areas. I don't know how far those areas are of what the distance is the area of sampling represents. At least that would help me.

If we don't want to do it that way, if we just want to close the entire area where we saw spawning fish, that is another option; and how big that is how big it is. It is a little bit harder for us to make a recommendation on the sides. When we get to the Pinnacles, I would say if you find the right pinnacle, close that pinnacle.

That is how it looks like in the pinnacle area I fish. If you have the right pinnacle, you can pinpoint it to one pinnacle. It is going to depend on the different bottom types we're looking at; but to just say how much area we want closed now is going to be bit difficult, I think, not knowing how big these areas we've looked at are.

MR. PHILLIPS: I agree with Ben; and maybe it is just because I'm more of a visual person. Seeing what it looks like on a map in relation to other things helps me a lot instead of this size box or that size box, but that might just be me.

MR. WAUGH: So then what you're suggesting is that we go back within – we're talking about North Carolina now; so we would go back into this area that is the Malchase Wreck and 780 Bottom and we develop some alternatives looking at the detailed topography in that area and then bring those alternatives to you in March for you to select which ones you want to go out to public hearing; is that what you want us to do?

MR. COX: Yes; I think that's what we're asking for; we would like to see some topography and the terrain so we could make a better judgment.

DR. DUVAL: Ben, is that along the lines of what you were thinking of?

MR. HARTIG: I'm sorry, Phil was asking me a question when Gregg was talking about the first part of it; if you could repeat that please, Gregg.

MR. WAUGH: Yes; what you want us to do is to go back and look within these areas that you've identified and look at the detailed bottom topography and bring you alternatives that would have varying sizes to protect say the very best area within there, a little more of that area, and bring some alternatives there so that, as Charlie said, visually you'll have some boxes to look at during the March meeting and then pick there?

MR. HARTIG: Thank you; that I think would meet the way I would like to move forward, anyway. I think that's a great idea; varying sized boxes. I think what strikes me in all of this conversation is one of the things that Marhefka said about when he would ride through an MPA and what lit up on his screen compared to the other areas that he fishes in; he was convinced at least from the conversation that we had that there is a lot more biomass in the MPA in particular that he was going through. Any of this, if we could have some kind of fish finder, you know, some kind of surveys of biomass in that area – and I don't mean we have to do the whole thing, but some kind of indication that there is fish there.

DR. DUVAL: I think I see what you're getting at, Ben. I think especially having seen Will's presentation on the data collected thus far off South Carolina, it does look like simply saying this many square miles isn't really – it certainly isn't accurate and if there are a couple of small places within fairly close proximity to one another, you might want to protect each of those two individual, very small places. That is going to be difficult to word in an alternative like this. I'm seeing heads nodding around the table.

MR. WAUGH: So then we could take that as direction to look within these areas, but I think we can go through and get your approval of how we've got these restructured with the direction and understanding that say for the Malchase Wreck you may only have one alternative that we come back with; but for the 780 Bottom you may have four or five; to give us that latitude to bring you various alternatives for each of these sites as we go through. With that understanding, I think we could bring you back something at March to work with.

MR. COX: Yes; I had a concern about 780 Bottom being 22 square miles. I don't know where the 22 square miles came from. It didn't come out of the expert working group and I was just wondering. The 22 square miles; are you sure? Well, it didn't come from me. It may have come from some scientists, but I would like to –

MR. PHILLIPS: It did.

MR. COX: – have an option to deselect it here if we could. I don't know if we can or not.

DR. DUVAL: So are you not interested in looking at the 780 Bottom at all in any capacity?

MR. COX: Yes, we need to look at it, but I don't know about 22 square miles is just a whole lot of bottom right there.

DR. DUVAL: So, Gregg, perhaps you could remove that "22 square miles" and simply say – I don't know what words you might use there but –

MS. BECKWITH: Larger.

DR. DUVAL: Yes, larger area as discussed by the expert workgroup or something like that; I don't know. I understand Jack's concern about delineating a particular square mileage. We have direction to staff to go back and examine these areas, noting that if there are three small areas around a particular site that appears suitable; that we may get back that many subalternatives. I think what we'd be looking for is potentially, Gregg, a motion to accept the suggested wording from the IPT for the restructuring of the alternatives. Charlie.

MR. PHILLIPS: Madam Chair, I think you wanted a motion to accept the IPT's recommendations on the rewording of Action 3.

DR. DUVAL: Motion by Charlie; is there a second? Second by Ben. Discussion? Any objection? Seeing none; that motion stands approved.

MR. WAUGH: Okay, basically the same thing for South Carolina; that would be Action 4 on the top of Page 12. The AP previously approved a motion asking the council to consider reducing the size of the proposed Devil's Hole/Georgetown Hole Area to one square mile. Again, the other AP motions; this is where, as Michelle and Jim explained, the AP backed off any specific recommendations.

Then we've got exactly the same as we just discussed for North Carolina, the area of Devil's Hole, and perhaps we want to change the square miles here similar to what we did for the other alternative. This is the size of Devil's Hole 3 that was included in the expert workgroup report. Again, we would bring you back several alternatives within that Devil's Hole/Georgetown Hole Area.

DR. DUVAL: I'm seeing some head-nodding from Mel; Mel, would you like a similar change for that Subalternative 2A?

MR. BELL: Right, yes, we'd definitely like to see something going down to a square mile, which had some level of interest already. We had the same reaction that the 27 square miles wasn't real popular; so smaller alternatives would be better. Whatever you do kind of up in North Carolina, the same concept.

DR. DUVAL: I think the direction we're getting is just consistent verbiage in sort of that initial largest subalternative approach. I think we would also be looking for a similar motion to accept the IPT-recommended changes for Action 4; is that correct, Gregg?

MR. PHILLIPS: Madam Chair, I make the motion that we accept the IPT's recommendations for the wording changes of Action 4.

DR. DUVAL: There is a motion by Charlie; seconded by Mel. Any discussion? Any objection? Seeing none; that motion stands approved.

MR. WAUGH: On Page 14 for Georgia; the same situation. We've the Georgia MPA Reconfiguration; the area outside of the existing MPA, so that would be slightly less than 79 square miles, so we change that to "larger area" "smaller area", even "smaller area"; and then do the same thing for the St. Simons Area that is 45 square miles.

MR. PHILLIPS: I may need to get some feedback from Doug; but I still haven't heard anything about what the cruises may or may not have seen when they were out there earlier in the year; I think June or something. If we're particularly looking at Warsaw and speckled hind, I'm not sure that changing that offshore MPA is going to help us at all. The St. Simons Area MPA, it did show there were some sightings of speckled hind. Maybe Doug help me out on what he thinks our thoughts might be there.

MR. HAYMANS: I haven't seen any results. You were talking about earlier in the summer and I haven't seen anything from that. Secondly, just what we're doing as far as asking them to go back and look at smaller areas; I guess there is no harm there. I would make a motion that we accept the IPT's recommended wording change.

DR. DUVAL: **Motion by Doug; second by Charlie. Any other discussion on that motion? The motion is to accept the IPT's recommended changes for Action 5.** Charlie; discussion.

MR. PHILLIPS: Yes, and I think again probably 45 square miles off of St. Simons might be a bit much, so we may take that out, too, just like we did off of North Carolina and South Carolina.

DR. DUVAL: Yes, I think that is definitely direction to staff to modify those accordingly so they're consistent in each of the different actions. Any other discussion? &&**Any objection? Seeing none; that motion stands approved.**

MR. WAUGH: And the final area is on Page 16 off of Florida. Again, we were asked to look at the Warsaw Hole – it is two square miles – and the Daytona Steeples that is 27; and again we'd change that to a larger area and then smaller and smaller.

DR. DUVAL: Is there a motion from the committee? Jessica.

MS. McCAWLEY: I make a motion to accept the IPT's recommended wording for Action 6.

DR. DUVAL: Motion by Jessica; second by Mel. Discussion? Any objection? Seeing none; that motion stands approved. Doug.

MR. HAYMANS: I would like to back just for a moment to Action 5. I'd almost rescind it except if Gregg would change "St. Simmons" to "St. Simons", I'd appreciate; and then I'd be good with it.

DR. DUVAL: Keep us straight, Doug.

MR. WAUGH: Okay, next is Action 7; and this proposes to move the existing Charleston Deep Artificial Reef MPA 1.4 miles to the northwest to match the boundary of the permitted site. You added this at the last meeting. The AP did not approve any recommendations on this. The IPT has recommended that you move Action 7 to a different amendment that would move faster. Giving this some thought after the IPT meeting, there really isn't another amendment that this would fit into that is going to move faster. This is the reason we skipped over the wording for the purpose and need. If we leave this in here, when we go back to the purpose and need, we have a little bit of wording that the IPT provided in in case you wanted to keep it in here, some wording to add to the purpose and need to address this.

DR. DUVAL: Given that there is not likely to necessarily be another amendment at this time that is going to move faster, perhaps we would not accept the IPT's recommendation. Mel.

MR. BELL: I was just going to say speed is of the essence, I think. I was just notified that the Corps did approve our request to change the permit; so the permit is in the mail. The artificial reef permit boundaries will be officially moved. We also can initiate the process, once we receive that, for NOS to put it on the chart. You will have at least the reef boundaries in the proper position as permitted by the Corps fairly soon. As far as how long the chart takes, that's another issue, but we're doing that.

DR. DUVAL: Since we're going to keep this action in here, how about the selection of a preferred?

MR. BELL: I would move that we select as preferred Alternative 2.

DR. DUVAL: Motion by Mel; second by Ben to select Alternative 2 as a preferred under Action 7. Is there any discussion? Any objection? Seeing none; that motion stands approved.

MR. WAUGH: Then at the full council, at the last meeting you added this action. You approved a motion to add alternatives to Amendment 36 that would consider time/area spawning closures as appropriate. The IPT has recommended that we move this out of Amendment 36 as it is contained in the Draft Joint Generic Amendment on South Florida Management Issues.

Starting on Page 21, that shows what alternatives were in the document that this group looked at in July as well as some alternatives that they added. Alternative 2 would remove the shallow water grouper closure for all affected species south of the 28 degree north latitude, which is just south of Canaveral, or throughout each council's jurisdiction.

The Gulf has different species' composition and different times for their shallow water grouper closure; so we've got alternatives in here that would allow us to adjust the species' composition under Alternative 3 and then to align them and then to align the seasonal closures under Alternative 4.

At the July meeting the committee also added some alternatives dealing with black grouper specifically; and this is shown on the bottom of Page 25; to remove black grouper from the shallow water closure and to establish a separate seasonal closure for black grouper; and to establish a one-fish recreational bag limit for grouper in Florida with an optional seasonal closure.

We've got a lot of alternatives that we're looking at in that amendment jointly with the Gulf. The idea is to get compatible regulations in Florida and the Atlantic and the Gulf. As you can see, some of these alternatives do apply outside of South Florida. We're going to talk about this a little bit also in Executive Finance tomorrow.

We're going to go through just a list of the actions and alternatives so that you can see what is being talked about; provide any guidance to our Executive Committee when they go to meet with the Gulf's committee in January, similar to what you do with our SEDAR Committee where you give direction to the Chair and the ED to go to the SEDAR Steering Committee and do that work there.

MR. COX: Yes; this is Amendment 36 and we're talking about locations. I didn't think we were much talking about timer/area closures. I would recommend moving on the IPT recommendation and taking time/area closures out of 36.

DR. DUVAL: **We have a motion by Jack to remove Action 8 out of Amendment 36; is there a second to that? Second by Ben.** Further discussion on this? Ben.

MR. HARTIG: Well, basically, if you look at our concept and if you look at those tables of when fish spawn, if we're trying to get the whole suite of snapper grouper species, the time concept isn't going to work. Basically, it would have been my recommendation to move that out of there.

DR. DUVAL: Okay, I'm seeing some heads nod around the table. Is there any other discussion on this? Like Gregg said, we're going to have a little bit of discussion in Executive Finance and certainly it might make more sense to discuss these kinds of things in total. Mel.

MR. BELL: I think when we put that in there, the intent was good and the intent was that we'd try to provide some flexibility or options, but I think it has probably caused more confusion or complications than it is worth. I'd be fine with removing it.

MR. BOWEN: I just have a question and it may be a moot point if this goes through; but what is the Gulf's grouper season and what are their regulations?

DR. DUVAL: Mr. Chairman, Kevin Anson; would you please answer that question.

MR. ANSON: I will attempt to. Phil, you can help me out, I guess. I believe we have a closure starting February 15th and that goes through April 15th. That is up on the board as I speak.

DR. DUVAL: This is PDF Page 22, Zack, in your decision document. You see that the Gulf has some depths associated, I think, with some of their spawning closures. Any other questions or comments? Everybody ready to vote? **Is there any objection to this motion? Seeing none; that motion stands approved.**

MR. WAUGH: Okay, we've got a couple of other suggestions from the IPT that we need to address and then we'll go back to the purpose and need. This is PDG Page 27, top of the page. The issue of transit and anchoring; so the IPT is recommending that you consider adding an action to outline the transit provisions – we could pull those from the same transit provisions that apply to the MPAs – and clarify the anchoring prohibition. It would be to prohibit anchoring within these areas.

DR. DUVAL: Could we get a motion to accept the IPT's recommendation to add an action to outline the transit provisions and the anchoring prohibition?

MR. PHILLIPS: Madam Chair, I make a motion that have the staff add an action to outline the transit provisions and anchoring.

DR. DUVAL: Motion by Charlie; second by Ben. Does this make sense to everybody? Any other discussion on this? **The motion reads add an action to outline the transit provisions and the anchoring provisions. Any other comments on this? Any objection? Seeing none; that motion stands approved.**

MR. WAUGH: And the issue was also raised about additional sites. There is some additional work – the IPT raised a concern that the sites developed by the expert working group were developed with the primary purpose of protecting speckled hind and Warsaw grouper versus all snapper grouper species.

The IPT has recommended that the council consider additional sites such as those potentially coming from the work being developed by Nick Farmer and Ken Lindeman. I've subsequently spoken with Ken; and he is working on a manuscript documenting throughout the gray literature, all sources of literature, as well as input from scientists and fishermen on spawning locations and times for a number of species. He has indicated that his work would not be available in time to be incorporated into Amendment 36.

DR. DUVAL: So does that make this recommendation somewhat moot at this point; that's what I'm getting?

MR WAUGH: I think for Ken's work – and Nick is here – well, I'm not sure what the timing is on Nick's work, if he would want to clarify that.

DR. FARMER: This is a collaborative project with MARMAP staff, Will Heyman and Ken Lindeman, Michelle Tishler and others. What we're looking at is using the MARMAP data as a predictor for where spawning aggregation sites occur. We've got a lot of information from those 30-plus years of MARMAP data on where spawning-condition females of a variety of species have been captured.

We also have a lot of information on geomorphology, such as what Will talked about. We're hoping to have a draft manuscript ready for the SSC meeting in April. We may not get there, but we're pushing towards that. We will keep you guys posted, but I think would be something the SSC would want to look at first. It is going to be pretty technical.

DR. DUVAL: Thanks for that, Nick, I appreciate it. I think with that recommendation we should certainly wait until the manuscript is completed and the SSC has had the opportunity to look at it. Now we would go back to the purpose and need.

MR. HARTIG: What about the IPT's concerns; should we just allay them now and tell them this is not directed directly at Warsaw and speckled hind but all species in the snapper grouper complex; is that what we're doing?

MR. WAUGH: Well, I think they understand that. The point they were making is that the site you initially selected were ones that they offered up that were more targeting speckled hind and Warsaw. What they suggested is you may want to look at additional sites coming of these other activities; but the timing of the results of those works don't fit in with the timing for this amendment; so we'll have to look at those down the line. I think if you see from the work that Will has done; that in fact the Devil's Hole Area as one example is important for a number of species and not just speckled hind and Warsaw. That very well may hold true for some of the other sites as well.

DR. DUVAL: Is everybody clear on that? Mel.

MR. BELL: I have a question and it is related to that point. That's why I thought of it here, but I realize we're about ready to wrap this thing up on the front end. To the point about Warsaw and speckled hind, a number of the sites we've selected may prove to be beneficial for those as well as the broader complex of species.

Should we, within this, have some sort of demonstrated commitment to an evaluation period? I realize we can't commit to money or that sort of thing; but one of the big issues is that we have these sites and then we've five years down the line or seven years down the line; and we've looked at them or we haven't looked at them and there hasn't been a committed effort.

Should we kind of hold our feet to the fire and commit to some period of time at which we would evaluate and then examine where we are and were they successful for other species as well. Did we achieve what we want to achieve; and if not, then what? I'm just asking. It is more of a discussion sort of thing.

It a sensitive area, because we're asking to take this piece of bottom and to use it in this way. It just seems like we ought to be committed to demonstrate that what we did indeed worked; and if it didn't just because it didn't; then I don't know, the concept of a sunset sort of clause or something in there comes to mind.

I'm just asking that; but should we have that in here as a commitment to – and they're much smaller areas and some of them are really easy to work. We've already started evaluating some of them. I am just asking it for discussion purposes; but does that belong here now or what do you think?

MR. WAUGH: You already gave us guidance to include an appendix in here. I guess it would be like a chapter that would go into the overall system management plan for our managed areas. You gave us direction. You'll have in March an outline of specific monitoring that needs to be done within these spawning SMZs. That will be in here as an appendix.

I don't think we can put that in as an action, but we can certainly say here is what is intended to be done. Then you can come back and revisit in some set period of time. I would expect, as we continue to work on this cooperative research idea, that you will received periodic presentations and be able to do an evaluation ongoing. But, yes, you've already told us to make sure and put that in as an appendix in here.

DR. DUVAL: And I appreciate the point that you've brought up, Mel. If we look at an area and make a decision to creating a spawning SMZ and then find out later that it is not doing any good, there is no reason to leave it in there. We would need to remove it. Charlie.
MR. PHILLIPS: I like sunsets because I'd like to put some teeth into trying to make something happen as far as research. Money is tight, so I like sunsets because it kind of helps move the ball down the road. On the other hand, I also know that if we set up a sunset in seven years, a lot of us won't be here. t is going to be a new council and they're going to do what they feel that they need to do at the time, anyway. I'm very sensitive to Mel's and having – I don't know what kind of teeth it would have just being in the back of the book. I don't if having it listed in the actions would help or not.

DR. DUVAL: Well, that is something that the IPT can address with some additional language up front that here is a chapter we're going to refer you to for a plan for monitoring and evaluation; but we want to make sure that whatever areas are selected as spawning SMZs; that they're actually meeting their intended purposes. If they are not, then we need to remove them; and have some of that language up front. Ben.

MR. HARTIG: How does the monitoring work with the citizen science when we close these areas? Are we going to just going continue monitoring with a scientist on board vessels and go in there and do that specifically?

MR. WAUGH: Well, you're going to come back from this conference in February and tell us how to do it. Yes, if the areas are closed, then either through the regular cooperative research we will have projects that would then get an experimental fishing permit or the necessary permits to be in those areas. Yes, all that would need to be worked out for that to be done.

DR. PONWITHL: When I hear citizen science and when I see presentations like we had today, when I hear enthusiasm about cooperative research, I love to hear that. This is music to my ears. I think it builds a sense of collaboration that we really need to succeed in terms of feeding the

science into the decision-making process and then getting the feedback loop back to make sure that the decisions that were made are yielding the positive outcomes that you hope for.

It is hard monitoring the MPAs to determine something like you've set up as your objectives. It is challenging and so I would be eager, certainly, to hear from Ben when he comes back from the citizen science because I think that will probably focus less on science methodologies as much as what does it take to build a volunteer coalition.

That's my guess, anyway, but ultimately to make sure that we have a good collaborative process in the development of the design; so when that monitoring happens, we know not only is the – you know, we're looking at those MPAs, those areas to make sure they're doing the work we're asking of them, but we're actually measuring in a way that has the statistical power to answer what seem like simple questions but are very challenging. I think having a layer of sample-design experts collaborating really closely with the people from the fishing industry that are going to be doing a lot of the heavy lifting on the sampling is going to be really important.

DR. DUVAL: Well, you've got your marching orders, Ben.

MR. HARTIG: Well, just to add to what Bonnie said, yes, it is one thing to have the coalition. The other thing is what she has talked before with me is to have long-term commitment, which is critical to being able to do this monitoring. There are two parts to that. Believe me, I'll give you a detailed report, for sure, when I come back.

MR. COX: Yes, I just want to throw in there is the way I see this working is off of North Carolina, anyway, that I've been over and talked to some scientists at the Beaufort Lab; and I know they've got some equipment that is easy to work with, some really good stuff. I'm getting a cooperative research for some of our fishermen. Our two sites are very close together; so we could go in there and do some sampling fairly easy. That is just the way I see it working.

DR. DUVAL: And also programs like the S-K, the Saltonstall-Kennedy Program; they're ideal for stuff like this, for cooperative monitoring and research for this. I wish I had a time warp so that I could have walked into that and written a proposal for S-K. I think those are due December 15th. That is not even a week away. That is exactly the kind of programs that we should be targeting for this. Any other discussion on this point before we move back to the purpose and need? Okay, Gregg.

MR. WAUGH: This is on the bottom of Page 4. What I've got projected here is the stuff in yellow and italics is the changes recommended by the IPT. I've added in the IPT's recommendation if you kept moving the South Carolina Artificial Reef MPA; that in the purpose you would add "align the existing South Carolina MPA with the permitted site:" and in the need you'd move the existing South Carolina MPA. That is the revised wording that we are recommending.

DR. DUVAL: Does everybody see that? That is on PDF Page 4 and you'll see the note. Gregg actually has it here in a draft motion. You're simply adding a sentence to the purpose "to align

the existing South Carolina MPA with the permitted site"; and adding to the need "move the existing South Carolina MPA".

MR. WAUGH: And the IPT also recommended adding to the purpose this yellow "and bycatch mortality" after "reduce bycatch and bycatch mortality"; and then changing "to the extent practicable" to "while minimizing negative short-term social and economic effects and maximizing beneficial long-term social and economic impacts".

MR. HAYMANS: My question that I was going to ask I see that he has put in there; so I'll be happy to make a motion for you, if you'd like.

DR. DUVAL: Has everybody had a chance to read it? Roy.

DR. CRABTREE: When I look at this and then I think about the discussion we had about evaluating these; is the criteria for determining if these are working or not to determine if they've actually enhanced spawning and increased recruitment and reduce bycatch of the stock as a whole? That seems to be our goal here is to increase recruitment basically.

DR. DUVAL: So your question is do we need to add some more language?

DR. CRABTREE: No; we talk about we really want to be able to demonstrate that these work; but trying to demonstrate that recruitment has actually increased, we hardly know – recruitment fluctuates so wildly from year to year; that we need to be careful because we set a criteria to manage their success that I think are almost going to be impossible to ever know because they're so variable.

DR. DUVAL: I caught up with you; I'm with you now.

DR. CRABTREE: So we're kind of setting ourselves up that some other council down the road is going to be stuck with no way of knowing; and then it will be, well, you put them in place but you haven't shown that they work. Well, it is going to be almost impossible to show that these work.

DR. DUVAL: So perhaps in the purpose removal of the last few words in that first sentence "and increase recruitment" which would leave it "identify important spawning habitat for snapper grouper species that can be designated for protection to enhance spawning."

DR. CRABTREE: Well, I'm not necessary saying you need to change any of it, but I think you need to go in this with your eyes open; that when we set these very small SMZs, it is going to be very difficult to ever show a measureable change in recruitment that would affect the stock throughout its range. I don't know that you need to change any here, but you need to understand that is going to be extremely difficult.

MR. BELL: Yes; what you would hopefully be able to show is that you've indeed found an area in which you can provide some degree of protection for spawning. Of course, then the intent is for these good things to happen; but Roy is right, measuring all those good things is a big task.

What you're really focusing on is providing a degree of protection for spawning activities in those particular areas.

And that I would hope we would be able to – they're spawning in there or they're not; and they'll be protected because the regulation is in place. If you were going to tweak the wording, maybe we should focus on the protection of the spawning activity and those other things are simply the neat stuff that we hope happens.

DR. DUVAL: Any other thoughts? Ben.

MR. HARTIG: Yes, the monitoring that we're setting up doesn't have anything – we're not going to be monitoring the recruitment part of it. The monitoring is set up to be able to monitor to see if you're had increases, I think, in spawning fish within that area. That is your success. You're not going to be able to say, as Roy says, that Recruitment X is coming out of this particular SMZ; but still our goal is to enhance recruitment. Whether or not we get that, it is not measurable, we can't measure it; but we make the assumption that if we can protect more spawning fish in a given area, possibly that will give us increased recruitment. I think that's about all we can say; but the wording I don't think needs to change, really.

MR. WAUGH: I know from looking at the draft of the system management plan for existing MPAs, it is going to have specific projects in there. It is going to have criteria that will demonstrate how you measure success.

When you see this again in March, that appendix will be outlined for this and maybe that will be a good time to come back and revisit this, because you'll have specifics in there and you can see if that's sufficient to gauge whether these are working or not and then whether we need to modify the purpose and need any.

DR. DUVAL: How do folks feel about that? I'm seeing heads nod. Has everybody had a chance to review the highlighted language now? I think Doug was prepared to offer a motion.

MR. HAYMANS: Madam Chair, I would move that we accept the IPT's recommended wording changes for the purpose and need statement to include the statement about South Carolina's MPA.

DR. DUVAL: They've already been read into the record so I think we're fine. Charlie seconds. **Any other discussion on this? Any objection? Seeing none; that motion stands approved.** We will see this again in March. The last item that we have on our agenda is Snapper Grouper Amendment 35, which is removing species and the Golden Tilefish Endorsement Issue. This is Attachments 8A and 8B in your briefing book.

MS. BROUWER: The decision document for Amendment 35 is Attachment 8A. There are only two actions in this amendment. The first one looks at removing four species from the fishery management unit. We included a table in the amendment that has the current regulations for the four species in Florida state waters as well as Gulf of Mexico federal waters and South Atlantic federal waters so that you can compare those.

The purpose and need statement that you approved in September is up on the screen; and then underneath we have some suggested changes that the IPT has proposed. The rationale for the suggested revision was it was a revision done based on comments from PPI. What they stated was that the purpose should not be a list of actions but needs to be broadened.

Then the needs statement has to tie into the National Standards. This is not a comment that we received previously, but nonetheless the IPT has made revisions according to that. You have those revisions on the screen for you to consider. We would need a motion for you to approve these revisions to the purpose and need.

The purpose as the IPT is suggesting would read, "The purpose of Amendment 35 is to ensure that only snapper grouper species that require federal management are in included in the Snapper Grouper FMP; that regulations for snapper grouper species in South Florida are as consistent as possible across state and federal jurisdictional boundaries; and that regulations implemented to govern the use of golden tilefish longline endorsements are aligned with the South Atlantic Council's intent for establishing the endorsement program."

The needs statement would read, "In accordance with National Standards set forth in the Magnuson-Stevens Fishery Conservation and Management Act, the need for Amendment 35 is to simplify federal management of the snapper grouper fishery without reducing protection for species rarely caught in states other Florida, make regulations consistent across jurisdictional boundaries, and ensure that regulations for commercially harvested golden tilefish are clear as to what quota golden tilefish longline endorsement holders may fish under while minimizing, to the extent practicable, adverse socio-economic impacts."

DR. DUVAL: So now I think we could look for a motion to accept the IPT's recommended edits to the purpose and need. Jessica.

MS. McCAWLEY: I move to accept the IPT's suggested changes to the purpose and need statement.

DR. DUVAL: Motion by Jessica; second by Charlie. Any discussion? Any objection? Seeing none; that motion stands approved. Myra, I just had one quick thing on the second page of the decision document; that table that shows the different commercial and recreational ACLs and everything.

There is actually an error on dog snapper, on the third column over under recreational ACL. It states what the ACL is and it says what it is if Amendment 29 is implemented. It says ACL equals 344,884 whole weight; well, that's actually the commercial ACL if Amendment 29 is implemented; so just maybe double check those.

MS. BROUWER: Okay, and here is Action 1 and you've got five alternatives; no action, and then one alternative for each of the four species that are being looked at being removed. The Snapper Grouper AP recommended Alternatives 2 through 5 as preferreds; so going ahead and removing all four species. They, in addition, approved a motion to recommend that the state of

Florida require a valid snapper grouper permit for the sale of these species. Here we would look for you to select a preferred alternative or several preferreds for this action.

MR. HAYMANS: Madam Chair, I move that we select Alternatives 2, 3, 4 and 5 as preferreds.

DR. DUVAL: Motion by Doug to select Alternatives 2, 3, 4 and 5 as preferreds; second by Zack. Any discussion on this? Jessica, I just had one question just in regards to the motion that the advisory panel made recommending that Florida require a valid snapper grouper permit. I didn't know if you might be able to address that.

MS. McCAWLEY: Once the species are removed from the federal management plan; I do not think that we can require a federal permit, but I can look into that and have an answer by full council.

DR. DUVAL: Any other discussion on this motion? **Any objection to this motion? Seeing none; that motion stands approved.**

MS. BROUWER: Okay, and then Action 2 is the one that you gave us guidance to include. At the September meeting you approved a motion that read "add an action to Amendment 35 to address golden tilefish endorsement issue", and, of course, modify the purpose and need accordingly, which we did.

There are several alternatives; and you did see these in September. There was an options paper that you reviewed. Alternative 3 is the one that seems to capture what the council's original intent was when they established the longline endorsement program. Alternative 4, the IPT is recommending that this be removed and placed in the appendix because it does not meet the purpose and need of the amendment.

This alternative is one that would allow golden tilefish endorsement holders to fish on the hook-and-line quota. The Snapper Grouper AP recommended Alternative 3 under this action as the preferred. Again, the AP also had a recommendation that the council consider changing the start date of the fishing year for the commercial hook-and-line golden tilefish fishery to March 15th. Here we would need a motion to either retain Alternative 4 in the document or move it to the appendix and then go ahead and select a preferred alternative.

DR. DUVAL: Why don't we dispense with Alternative 4? Would the committee like to make a motion to move this to the considered but rejected appendix? Charlie.

MR. PHILLIPS: Madam Chair, I make the motion that we send Alternative 4 to the appendix, rejected.

DR. DUVAL: To the considered but rejected appendix. Second by Ben? Is there any other discussion on this? **The motion reads move Alternative 4 to the considered but rejected appendix. Is there any opposition? Seeing none; that motion stands approved.** Now we need to select a preferred alternative. Ben.

MR. HARTIG: Before I do that, I do need to put something on the record. There was a fisherman that called me probably four or five days ago and said that he had bought another snapper grouper permit. He has a golden tilefish endorsement, but he bought another snapper grouper permit thinking that he could fish in the hook-and-line period with the same boat he fished during the longline fishery because he wouldn't be using longline gear and it was under another permit.

We had a long, long, long discussion. I've talked to Monica about it. I don't know how exactly we could word it so that happen. I don't have a problem with that happening. If someone wants to go out and invest in fishing in the hook-and-line period of that fishery with another permit, to make that investment, I don't think that is going to be something that a lot of longliners do; but this one in particular did. I told him I'd bring it before the committee.

He said he would be willing to take his longline spool of his boat. That was my first consideration, if you have any longline gear at all on our boat. That is one of the biggest concerns I had in this process, if that gear was still allowed on the boat; that you use that gear illegally to catch golden tilefish. I told him I'd bring it to the committee. I have and I just wanted to see if there was any way he thought you might want to try and deal with that issue.

DR. DUVAL: Monica, can you provide us with a little bit of insight from your perspective on this?

MS. SMIT-BRUNELLO: I guess I don't have much perspective on it right now. Ben mentioned it to me; and I've been juggling other things and haven't really given it further thought. You know a vessel can only have one permit at a time. I haven't thought of a way to craft an additional alternative that would satisfy this particular individual's desire. I'll think about how to craft one, but I don't have any additional insight as to what the wording would be for another alternative.

DR. CRABTREE: Well, looking at Alternative 3, that has the language "any time during the golden tilefish fishing year," so it seems to me under Alternative 3; the situation Ben described he wouldn't be allowed to fish, because that vessel would have had the endorsement some time of the year. In Alternative 2, if he took the snapper grouper permit with the endorsement off of that vessel and put it on another vessel and then put a snapper grouper permit that didn't have endorsement back on the vessel, it seems to me Alternative 2 would allow him to do that.

MR. PHILLIPS: Well, not knowing how he has got his ownership of the boats, I could see possibly, like you say, Roy, doing Alternative 2 and he just leases the boat to the permit that doesn't have an endorsement and takes it out and puts another boat under the permit that does have an endorsement or something like that – and I understand we're trying to keep – I don't think very many people are going to spend that kind of money just to catch hook-and-line limits of golden tile, but I could see where there is probably wiggle room if we went to Alternative 2.

DR. DUVAL: I guess I kind of thought this was the problem that we were trying to solve in the first place was not having folks fish on both pieces of the ACL and prevent double-dipping

because you had a group of folks who did not have the ability to have the endorsement and we wanted to provide them some access to that resource. Roy.

DR. CRABTREE: I think there are 18 endorsements; but you have got folks that have more than one vessel; and so if somebody has two vessels and one has the endorsement and one doesn't, then he is going to be able to fish on the longline section and he is going to be able to fish on the vertical line section.

It really comes down to do you want say that he has to use the boat that never longlines, he can't use the other one, and it is not clear to me why at that point we want to do that. I don't know; this is kind of tricky to me; but if it is about trying to keep people from having access to both quotas, I'm not sure how we can do that because people have multiple vessels.

MR. COX: I'm even thinking even if they don't have multiple vessels, they could lease the permit from somebody else – or not lease a permit but lease – you know how we do it, anyway, they could take their permit off and lease the vessel to someone else. I mean there are ways to do it if they really want to do it.

MR. HARTIG: I think my suggestion is to drop this for now. We'll come back at full council and we will flesh it out some more. I think Monica, when she said a vessel – or whoever said it, Roy or Monica – only one permit can be on a vessel probably would not solve the problem of this particular fisherman. Like I said, we'll flesh it out more. I don't want to take the time of the committee to do it now.

MR. MAHOOD: Monica and I discussed this in detail, too, when it first came out because the fellow called me and I didn't really know what to tell him. Monica, we talked about the problem is the renewal of the endorsement is not in line with the renewal with of the permit. There is a period of time where the endorsement for the longline fishery has lapsed, which allows him to fish on his vessel with the permit in the hook-and-line fishery; because the way the regulation is written, he can't fish hook and line during period he has the longline endorsement; is that not correct?

MS. SMIT-BRUNELLO: That is pretty much it, yes.

MR. MAHOOD: So what we had talked about is somehow change it to where you lined up where you renewed your endorsement your permit at the same time and then you didn't have that lapse. He can forego renewing his endorsement until the next longline season opens up and then he can renew his endorsement and he can fish longline. That was one thing we looked at of trying to line those two things up.

DR. CRABTREE: One other thing that has been brought up to me with respect to this is that in the sea bass pot fishery where you have a pot endorsement, we do let those guys – they can hook-and-line fish during the pot closure; and so the question that has been raised to me is, well, why are we treating them differently than we are in golden tile. Frankly, I didn't have a very good answer for that, but I think we ought to have that if we're going to do it differently in this fishery.

MR. HARTIG: Roy, the difference in the fisheries is that longline closure prohibited the pot fishermen from fishing that gear; so as a fallback, they could use hook-and-line gear during that time to fish for black sea bass. It is a lot different, in my opinion, because of the closure. The closure is what forces those fishermen to fish in the hook-and-line fishery and why we would probably want to continue to be able to do that to get some more economics out of the black sea bass fishery.

DR. CRABTREE: To that point, the golden tile longline fishery has a longer closure than the sea bass does. That quota is usually caught up in two and half or three months and they're closed nine months of the year.

MR. HARTIG: Yes, but still that closure is based on the fisherman's effort in that fishery where it isn't in the sea bass fishery. It is not based on the fishermen's effort why we closed fishery. We closed the fishery because the fishermen caught the fish. It is the longline fishermen who have chosen to fish under a derby and fish in a very short season; and that is the difference between that and black sea bass. Black sea bass is a closure implemented because of an ESA restriction; and those fishermen don't have that effort that golden tilefish guys do to be able to participate, and they're disenfranchised by that rule. That is the difference I see.

DR. DUVAL: I would agree with that. Jack.

MR. COX: Yes; I agree with you, Ben. Roy, we catch those sea bass from 30 feet right on out to five or six hundred feet of water, so we would be doing so much discarding while we were vermilion fishing and doing other types of fishing. Also, if you do want to address something like that in the sea bass fishery, then you could just set up a time when a certain percentage of the quota is met, then the bass pots stop fishing it.

DR. CRABTREE: Don't get me wrong; I think they should be able to fish the hook and line. I'm more questioning why these 18 guys who have the endorsements should not be allowed to fish or why we would make them go through all kinds of hoops of swapping permits and things or having to have a second boat. I'm just not sure why we need to do that; but I think sea bass is right, they should be able to fish in the hook-and-line fishery. I'm having more trouble with what we're doing here than the other way around.

DR. DUVAL: Roy, back when we were going through 18B and setting up the golden tile endorsement program, part of the reason that we set aside that 25 percent for the bandit fishery was because it was a regional issue, quite frankly.

The Florida longline fishermen have the opportunity to catch the entire ACL no matter what; but there are other fishermen up and down the coast who have fished bandit gear for golden tilefish all the way into North Carolina. That was a way to preserve the ability of those folks to have access to the fishery because it is not accessible to everyone in January and February.

That was the rationale in 18B when we put that in place. The suggestion has been made to not select a preferred alternative at this time, to come back at full council and discuss this and then

we would also, at full council, need to approve this amendment for public hearings. Okay, is everybody clear on that? We have a few tasks for ourselves during full council.

Other business; one of the things that the AP mentioned was modification of the start date of the bandit fishery for golden tilefish to be March 15th. Just in discussing with Myra whether or not we can add an action to this amendment to consider a change in the start date of the bandit fishery; we can but there won't be any analysis in time for public hearings. What is the pleasure of the committee? Do you want to save this and look at it in a subsequent amendment? Ben.

MR. HARTIG: In talking to the man who made the motion on the AP and talking to him subsequently; he was looking for a vehicle to more this forward quicker. The reasoning is that there may be some funny business going on during the time that longline and hook and line are going on. There are some possible things going on that may not happen if the hook-and-line fishery is opened at a different time.

Basically, at a time later, I think it be would fruitful to go back and look at some forensic stuff in the logbooks and be able to see if that happened or not. Having that said, if we could put it in this amendment without – I don't know how much analysis is going to be needed for this particular action. Myra, do you see it being a lot of analysis for a season change for golden tilefish?

DR. DUVAL: I think the only thing we would have to ensure is that we have a range of alternatives. You would need to have what we have now, January 1st, March 15th, April 15th, April 1st, something like that. Roy.

DR. CRABTREE: Well, you're going to need rationale for changing it; and I think it is going to have to be more specific, Ben, than funny business. You're going to have to lay out what is the issue and why and how does this solve it more specifically. I understand if you're not comfortable doing that right now, but we're going to have to explain why we're doing this. We can't just be changing things without real reasons.

DR. DUVAL: Right; and I think just recalling the conversation from the advisory panel meeting was the concern that the AP member who made the motion expressed was not wanting to flood the market with tilefish at that time of year and noting that the longline sector usually is caught up pretty quickly; so then having a later start date for the bandit sector would allow for better conditions.

Perhaps, Ben, this is something you might want to think about before we come back to full council and address it then. There was one other item under other business that I know Jack wanted to mention; and, Jack, would like to bring that up? Do you want to talk about an almaco trip limit?

MR. COX: Yes, I would. I would like to see us think about some kind of trip limit on the almaco jacks that gets caught up so quickly. I think that particular fish gets caught – you know, we have boats coming in with 3,000 pounds a trip with almacos; and those fish get caught early in the season in June. It would be nice to have that spread through the year when they're

catching other species and interacting with almacos. I would like to hear some discussion on it. Ben, I know you and I have talked about it, but I'd certainly like to see something starting down that road.

DR. DUVAL: Ben, do you want to add your perspective to this?

MR. HARTIG: Yes; I think it is appropriate. Almaco is one of those jacks where they catch in, my gosh, every reef fish fishery we fish in; so some way if we could allow to stretch that harvest out, it would be beneficial to the people; you know, just on a per trip basis to be able to get some monetary – increase the monetary value of those trips. I'm not sure what the value should be, Jack. I not sure what you're looking at.

MR. COX: I would just like to make a motion that we put some alternatives to start a trip limit for almacos and put several alternatives in there and send them out to the industry and see what those guys are interested in doing.

DR. DUVAL: Probably what we could do is instruct staff to develop some alternatives for an almaco trip limit and you might want the advisory panel to take a look at that in April; would that be okay?

MR. COX: Most definitely; yes, that is where I'd like to see it go.

DR. DUVAL: Is that okay? Roy, you look like you want to raise your hand.

DR. CRABTREE: I had another issue, though, if you're done with this.

DR. DUVAL: **Okay, so the motion by Jack to direct staff to develop alternatives for an almaco trip limit; is there a second? Second by Ben.** Any other discussion on this right now? Zack.

MR. BOWEN: This just come to mind when Jack mentioned this. In visioning we heard that the commercial fellows would like a year-round fishery of several things. Well, here is our first chance to develop these trip limits where we possibly can make that a year-round fishery. I would just want to put it out there that maybe the trip limit with alternatives should be catered around trying to make this a year-round – you know, so the fishery can go all year round, if that makes sense.

DR. DUVAL: That does make sense. Any other comments on this motion? **Is there any objection to this motion? Seeing none; that motion stands approved.** We will just note that the intent is that the advisory panel would be able to – we would want their input at their next meeting in April. Okay, Roy.

DR. CRABTREE: I think the SSC reviewed the hogfish assessment, which we talked a little about, and it is at least in South Florida overfished and undergoing overfishing. I guess, Michelle, what are your plans in terms of addressing that?

DR. DUVAL: Clearly, we're going to need a plan amendment to do that because we need to establish a rebuilding plan. I think one of the issues was that we were still waiting on the projections from FWC in regards to that. Jessica.

MS. McCAWLEY: I was told that those projections have already been completed is what Luiz told me.

DR. DUVAL: Mike, do you know what the status of those projections are?

DR. ERRIGO: What we got was – they looked more like a preliminary exploration of projections. There aren't really landings there. They're more projections with F rates and things like that. We need to send to FWC the SSC's P-star recommendations and several other pieces of information so that we can get actual landing stream projections, which we didn't exactly get in the e-mail that was sent to us.

John has looked at them bit more; the projections for hogfish. What we got was more like a preliminary exploration of different types of projections, but we didn't get the actual landing stream for rebuilding based on the SSC's P-star or P rebuild values.

DR. CRABTREE: I assume staff will work that out and that we will, at the next council meeting, start the process of a new plan amendment to address this.

DR. DUVAL: There is apparently a boundary issue that needs to be resolved between the Gulf and the South Atlantic in the assessment. Yes, we need to direct staff to begin development of an amendment to respond to the results of the assessment; but I think one of the key things is whether or not that is going to be a joint amendment or just a South Atlantic amendment. I think in any event we would want to see an update on where we stand with that at the March meeting.

MR. CARMICHAEL: Yes, we have the information to know that it can rebuild in ten years. We don't have the projections that we're accustomed to and we don't have the full detail. One of the reasons we haven't asked them to do that is because of this boundary issue. The Florida Keys stock extends on the west coast to the Monroe/Collier Line; so it crosses over into the Gulf jurisdiction.

We need them to review the assessment and they may have some take and their control rule may give you different recommendations to consider for crafting your rebuilding plan. We need to kind of decide are we going to do something joint and let the two councils work out what the parameters of the rebuilding plan are or will they maybe let the South Atlantic take lead on that and we can work out parameters.

But, you know, when you figure, obviously, you know, you'll F zero and rebuilding in ten years and F rebuild based on the probability of success from the SSC and then probably an F rebuild based on 75 percent of Fmsy – now the Gulf council may have some other alternatives; so if we're doing something joint, we're going to have to resolve that. At which case, yes, Florida is

prepared to go in and do us the projections we need and give us all the associated stock parameters that would go with that.

DR. DUVAL: So if the Gulf SSC is reviewing this; then presumably the Gulf Council would receive an update on this at some point; so, Kevin, when is your next meeting where you would see this?

MR. ANSON: I don't know if it is on the January SSC agenda; I can check. If it is not on that agenda, then it won't be until the August meeting potentially that we wouldn't be able to see it. If it is on the January meeting, then we could see it as soon as January's meeting. I can check here in a minute. I've got the agenda; I just don't recall offhand if that is on there.

DR. DUVAL: Roy, would you like a motion or is direction to staff enough to begin the necessary steps to develop a plan amendment and develop a rebuilding plan? Certainly, in March we're going to want to see an update on what the options are, anyway.

DR. CRABTREE: I don't want to make a motion, but I do think probably, Bob, you ought to have some discussions with Doug Gregory about how to work this out because we're going to have two years to deal with it. If the Gulf waits until August to get the SSC to look at it, that is going to be pushing it. I think some preliminary discussions as to how to deal with some of these between the two councils would be good.

MR. WAUGH: We've got Amendment 37 is where we've got pegged to deal with hogfish along with the visioning stuff. We'll talk about this in Executive Finance, but that is the direction we've gotten from you thus far.

I was talking with John; my recollection is the Gulf SSC looked at the West Florida stock portion of the hogfish assessment at their last meeting. Now, what we have to do – and I think it is good to let the ED's talk about this.

We need to determine with the Florida Keys stock how much of that harvest occurs in the Gulf jurisdiction. If it is insignificant and the stock is overfished and rebuilding, the Gulf Council may just want to deal with that; and we could continue to deal with it in Amendment 37. I think the direction to staff, and we can talk with the Gulf Council and come back with an approach at the March meeting.

DR. DUVAL: That sounds good. Does that answer your questions, Roy? Okay, is there any other business to come before the Snapper Grouper Committee? Jack.

MR. COX: Thinking about the March meeting coming up and having some folks come and do some presentations in relation to the visioning workshop; would this be the appropriate time to have a discussion on that?

DR. DUVAL: What kind of presentations would you like to see?

MR. COX: If some folks from sector management from the northeast fisheries are willing to come for the March meeting to answer questions and have presentations.

DR. DUVAL: Why don't we allow staff to maybe look into that and see about scheduling? If we can make it in March and there is room on the agenda, we will be able to do that; and if not, the next council meeting. Kevin.

MR. ANSON: I just wanted to provide an update to January's Draft SSC Agenda; and there is a discussion item on here for hogfish OFL and ABC; and they're going to be reviewing the South Atlantic SSC OFL and ABC and Florida Keys stock.

DR. DUVAL: Excellent; thank you. Is there any other business to come before the Snapper Grouper Committee? I will remind you all that we do have a little bit of unfinished business that we're going to need to take care of at full council; namely, with regard to a couple of the new alternatives that were added to Regulatory Amendment 16 with regard line-marking requirements and selection of a preferred alternative. I would just ask that folks be prepared to be efficient when we get to that on Friday. All right, Mr. Chairman, the business is concluded and I turn things back over to you.

(Whereupon, the meeting was adjourned at 5:15 o'clock p.m., December 3, 2014.)

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INDEX OF MOTIONS

Regulatory Amendment 16

Page 78: Motion to modify the need as follows: The need for the amendment is to minimize socio-economic impacts to black sea bass pot endorsement holders while considering the need to protect ESA-listed whales in the South Atlantic Region. There was a substitute to make this motion the main motion. Motion approved Page 78.

Page 80: Motion to accept the IPT's wording for Alternative 8 and Subalternatives 8A and 8B. Motion approved Page 80.

Page 87: Motion to add a new Alternative 9. Motion approved Page 87.

Page 88: Motion to add new Action 2, gear modification. Motion approved Page 89.

Regulatory Amendment 22

Page 101: Motion to modify the need statement as follows: The need for the amendment is to address recent stock assessment results for gag and wreckfish and prevent overfishing while minimizing to the extent possible adverse social and economic effects; and (2), to increase access to the gag resource and increase fishing opportunities, thus imparting socio-economic benefits to resource users. Motion approved Page 101.

Page 111: Substitute motion to deselect Alternative 2 and select Alternative 3 as the preferred for Action 1. Motion approved Page 111.

Page 111: Motion to select Alternative 2 as our preferred. Motion failed Page 114.

Page 115: Motion to select Alternative 1, no action, as the preferred for Action 2. Motion approved Page 115.

Page 117: Motion to approve Snapper Grouper Regulatory Amendment 22 for secretarial review. Motion approved Page 117.

Amendment 36

Page 138: Motion to select Alternative 2 under Action 1 as the preferred. Motion approved Page 138.

Page 138: Motion to select Alternative 2 under Action 2 as preferred. Motion approved Page 138.

Page 141: Motion to accept the IPT wording for revising Action 3 and the alternatives. Motion approved Page 141.

Page 142: Motion to accept the IPT recommendation for the changes to Action 4. Motion approved Page 142.

Page 143: Motion to accept the IPT's recommended changes for Action 5. Motion approved Page 143.

Page 143: Motion to accept the IPT's recommended changes for Action 6. Motion approved Page 143.

Page 144: Motion to select Alternative 2 under Action 7 as the preferred. Motion approved Page 144.

Page 145: Motion to remove Action 8 from Amendment 36. Motion approved Page 145.

Page 146: Motion to add an action to outline the transit provisions and anchoring provisions. Motion approved Page 146.

Page 151: Motion to accept the IPT's recommended changes to the purpose and need. Motion approved Page 151.

Amendment 35

Page 152: Motion to accept the IPT's edits to the purpose and need. Motion approved Page 152.

Page 152: Motion to select Alternatives 2 through 5 as preferreds under Action 1. Motion approved Page 152.

Page 153: Motion to move Alternative 4 under Action 2 to the considered but rejected appendix. Motion approved Page 153.

Page 158: Motion to direct staff to develop alternatives for an almaco trip limit. Motion approved Page 158.

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South Atlantic Fishery Management Council

Snapper Grouper Committee Meeting

Tuesday, December 2, 2014

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Snapper Grouper Committee Meeting

Tuesday, December 2, 2014

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RED MUNDEN (AP)	252-726-9015		
Emily Helmick Pew		ehelmick@pewtrusts.org	
FRANK HELIES	GSAFF	TAMPA, FL	

PLEASE SIGN IN

In order to have a record of your attendance at each meeting and your name included in the minutes, we ask that you sign this sheet for the meeting shown below.

South Atlantic Fishery Management Council
Snapper Grouper Committee Meeting
Wednesday, December 3, 2014

NAME & SECTOR/ORGANIZATION:	AREA CODE & PHONE NUMBER:	EMAIL ADDRESS:	MAILING ADDRESS:
John Hadley NCDMF	(252) 808-8107	john.hadley@ncdenr.com	
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DICK BRAME		CCA	
Trip Akleman		CCA	
Susan Shipman	912.222.9206	susanshipman@att.net	SSI, GA 31522
Tracey Smart SCDNR			
Joe Bilkovic SCDNR			Charleston, SC
PETE MOEITT			
Emily Helmick		ehelmick@pewtrusts.org	

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South Atlantic Fishery Management Council

Snapper Grouper Committee Meeting

Wednesday, December 3, 2014

NAME & SECTOR/ORGANIZATION:	AREA CODE & PHONE NUMBER:	EMAIL ADDRESS:	MAILING ADDRESS:
Bill Kelly	FKCFA		
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