

# **SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL**

## **HABITAT PROTECTION AND ECOSYSTEM-BASED MANAGEMENT COMMITTEE**

**Doubletree Grand Key Resort  
Key West, Florida**

**June 8, 2015**

### **SUMMARY MINUTES**

#### **Habitat Protection & Ecosystem-Based Management Committee:**

Doug Haymans, Chair  
Mark Brown  
Dr. Michelle Duval  
Jessica McCawley  
Robert Beal

Anna Beckwith  
Chris Conklin  
Dr. Wilson Laney  
Charley Phillips

#### **Council Members:**

Ben Hartig  
Zack Bowen  
Jack Cox

Mel Bell  
Chester Brewer  
Dr. Jack McGovern

#### **Council Staff:**

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Roger Pugliese  
Dr. Mike Errigo  
Dr. Brian Chevront  
Mike Collins

Gregg Waugh  
Amber Von Harten  
Myra Brouwer  
Chip Collier  
John Carmichael  
Julie O'Dell

#### **Observers/Participants:**

Dr. George Sedberry  
Pat Geer  
Capt. David Dipre  
Erika Burgess  
Dr. Marcel Reichert

Rick DeVictor  
Monica Smit-Brunello  
Brett Boston  
Dr. Bonnie Ponwith

Additional Observers Attached

The Habitat Protection and Ecosystem-Based Management Committee of the South Atlantic Fishery Management Council convened in the Tortuga Ballroom, Doubletree Grand Key Resort, June 8, 2015, and was called to order at 10:12 o'clock a.m. by Chairman Doug Haymans.

MR. HAYMANS: We will call the first-ever Habitat Protection and Ecosystem-Based Management Committee to order; seeing as how we combined them at the last meeting. On behalf of Wilson Laney and myself, I think you've pretty much looked at the list of committee members. That is most of us. You'll see that on the back page of the agenda in case you have questions.

First of all, under approval of the agenda we have two additional items under other business regarding the Experimental Closed Area and Coral 8. Are there any additions to the agenda? Seeing none; the agenda is approved. Hopefully, you've had a chance to look back over the minutes from March. Any changes or additions to the minutes? Seeing none; we'll accept those minutes. Next we have a report from the Habitat Ecosystem AP and Pat Geer is going to deliver that for us.

MR. GEER: The Habitat Protection and Ecosystem-Based Management AP met on April 7th and 8th in North Charleston. We had a lot of different items on our agenda. The first day was primarily panel business and the second day was many presentations from BOEM. We had a good discussion on the Fisheries Ecosystem Plan II and the impacts and threats to habitat. Then we led into updating impacts on fishing on habitat and had two presentations on emerging and new fisheries, discussing calico scallops and cannonball jellyfish.

After that we broke out into state subgroups and let the subgroups discuss those threats that we talked about and any specific threats that they may have in their individual states. After that Roger led a discussion on food web connectivity and developing a section for the ecosystem plan and creating a policy statement for that. We had good discussion about that as well.

One of the issues that we had a very lively discussion about was concerning EFH designations. This came up when we were talking with our NOAA Fisheries partners; where if a species is removed from management, what happens to that EFH designation? The concern was we had so many Pew members that didn't want any designation of habitat to be lost.

They had that thought that we need to keep those designations as much as possible. But another issue that was of concern was the example that was given was schoolmaster; and the fact that there is a wide base of information on habitat references for that species. By removing that designation in a permitting process, we may not be able to use that information any more.

The AP all agreed that removing some of these species from the management units is a good idea, but the ramifications of removing them is what happens to those EFH designations. We talked at length about how it could be addressed; could it be addressed through Magnuson-Stevens, which would be a very difficult thing?

It is like if the states are taking over the management, could they designate those as habitat areas of concern in their state waters? If that was the case, that information would still be useful for the permitting process. We just want to make aware that when these species are removed, there

is going to be implication of those designations for habitat. We had a very lively discussion about that.

DR. DUVAL: I saw Ben's hand up as well, so maybe we're going down the same line. Schoolmaster has already been removed from the reef fish fishery management plan in the Gulf; am I not correct? I recall from Amendment 35, which is where we're considering removal of a suite of species from the snapper grouper fishery management plan, that this has already been done on the Gulf side.

I guess my question is for how long has schoolmaster been removed on the Gulf; and then the question for Pat is the information that you referenced that is available for schoolmaster with regard to habitat use and everything; does that apply on both sides of the peninsula or is it mostly specific to the South Atlantic?

MR. HAYMANS: Can anyone from the Gulf answer the schoolmaster question? Do we have a Gulf representative here? Erika.

MS. BURGESS: I'm not sure how long ago they were removed, but the intent was for both councils to remove them at the same time before the state was to take action.

MS. SMIT-BRUNELLO: I don't disagree with that. I can check that out further to make sure. For snapper grouper species – and Roger can speak to this – I think EFH is usually designated in terms of kind of the fishery as a whole as opposed to EFH for schoolmaster is this area; EFH for golden tilefish is this area.

I agree that when you remove species, theoretically you're removing the EFH for those species, but I think on a more practical level the EFH for the snapper grouper fishery remains the same even when those species are removed; because it seems like we designate it for the species as a whole or for groups of species, but that is my recollection, anyway.

DR. LANEY: Well, Monica, it depends; I guess would be my answer to that; but I will defer to those who know more about schoolmaster than I do. Recall a number of years ago the same situation arose with regard to red drum EFH. The present situation is we have EFH for red drum in the Gulf of Mexico but not on the South Atlantic coast. I wish Dr. Wilber was here to speak to the issue. With red drum, because of its very specific habitat requirements, once it was removed on the Atlantic coast, then Pace had raised the concern that they were no longer able to indicate that it was a surf zone dependent species. That was especially problematic when they were commenting on beach dredge-and-fill projects.

Now, obviously with snapper grouper, again it just depends on the individual species. I don't know that much about schoolmaster myself, so I don't know whether it has certain habitat requirements that are different from other snapper grouper species that may affect field staff's ability to address the impacts of certain types of threats when they are doing EFH consultations or not.

MR. HARTIG: I guess my concern with that is there is a whole suite of species, and I think Monica summed it up best by saying that EFH covers the fishery as well; but there is a whole suite of species that use the same habitats as schoolmasters. Mangrove and, of course, gray

snapper is a much more important species that has the same kind of habitat characteristics that schoolmaster does. Yes, I would be concerned if we were moving schoolmaster that had unique habitat characteristics; but since there is a suite of species that have the same kind of habitat characteristics, I am not as worried.

MR. HAYMANS: That was my thought line as well. Anyone else?

MR. PUGLIESE: I think one of the things that Pace made clear was it was the issue of the amount of information and not necessarily the coverage on that. I think that is what his point was that they used – in some of these specific actions where they have the most detail by species – so it is just an acknowledgement that while it may be covered; that routinely in the permit review process they are citing individual species. As you move those out of there, while the EFH designation does cover the complex, it pulls a couple that they might be able to add in the comment. It is potentially an issue if you go too far with it

DR. McGOVERN: I just wanted to point out that schoolmaster was removed from the Gulf of Mexico Reef Fish FMP in 2012 with the Generic ACL Amendment.

MR. HAYMANS: Okay, good discussion, anyone else? If not; Pat go ahead.

MR. GEER: On the second day we had a really good discussion with BOEM. We had a lot of their staff come in and similar talks to what they gave to the council back in March, but in a lot more detail. They brought in their expert in acoustics and things like that. We had a good discussion with them about that.

We raised the concerns and asked some pretty tough questions of them and asked them what the ramifications of some of these may be. After those presentations were done and they left, we had the rest of the afternoon on the second day to discuss some of our recommendations. Our first was to send a letter to BOEM on our concerns on seismic testing; and the council has already done that.

We also wanted to send – it seems that every year in the South Atlantic bathymetry surveys are near the top of BOEM' list of funding projects, and it always gets pushed back down. There were several members that were asking can we keep trying to push that back up so it is on their list of funded projects; so we can get some of these bathymetry surveys done and completed?

Along those same lines – this got mentioned at the council meeting last time – if this seismic testing; if it is going to be going on and they are going to be collecting bathymetry data; it would be great if they would share it. That is information that they are really not that interested in, but it would help us a great deal.

We don't know if those letters should come from the AP or if they should come from the council, but we're making a recommendation that as BOEM moves forward on these, as information is collected; that bathymetry data be made available to the researchers doing the bathymetry work and the mapping in the Southeast.

DR. DUVAL: My question was don't we have someone from BOEM who is on the Habitat and Environmental Protection AP? I thought Brian Hooker was on there previously.

MR. PUGLIESE: No; and as we get into some of the discussion later on about FEP and beyond, those are some of the comments I was going to make about shoring up the AP membership. I think Brian has been involved with a lot of different things, but we never did formally bring him on as a member.

I had actually talked to both sides about that may be an avenue to make sure we keep that type of really close connection both in planning for research, mapping, and everything else, as well as for any of these activities so that we can keep in the loop more formally about how this process goes. I think that is something that we need to get at a structural level of the Habitat and Ecosystem A, to make sure that we have additional. As I mentioned, that was going to be one of the comments I was going to make to make sure we have the capability.

DR. LANEY: With regard to the impact of seismic testing, we had some subsequent conversation I think during an ASMFC Habitat Committee Meeting from Jessica Coakley at the Mid-Atlantic Council, who is sort of the point person on that issue for the Mid-Atlantic; to the effect that the sort of seismic testing that is being proposed may have some direct mortality on benthic organisms when the testing is done in areas less than 50 meters.

Pat, correct me if I am misspeaking on that; but that was sort of a revelation to me because when we've talked to the BOEM folks no sort of impact like that has been mentioned. Jessica shared some anecdotal account I guess that had come from scallop fishermen on the Grand Banks about dredge loads of dead and decaying scallops in the aftermath of seismic testing up there.

I just put that on the record to indicate that there seems to me to be a need for further investigation of this. I think Jessica has kind of taken that on. I believe aren't we working on a habitat hotline article I think on the seismic testing? I'm not sure whether we have that one in the list of things or not.

I just wanted to let you know that that information is out there; again it is anecdotal. I'm not sure what sort of follow up Jessica plans to do, but I recollect that she is going to do some follow-up on that. We will certainly bring additional information that we receive on the impacts of seismic testing back to the council and appreciate the fact that the council did go ahead and send a letter to BOEM and express our concerns about the issue.

MR. PUGLIESE: I think the key is that seismic testing is part of a bigger component of the impact of sound on fish in our region. I think as part of the update of the energy policy, we're going to get that a whole lot more effectively reviewed. One of the things I think that stood out from all of the information that was presented by BOEM, both the G&G side and the alternative energy side, is the lack of some of that detailed information.

What is really a little disturbing is given how much has been done in the Gulf of Mexico; you would think they would have some very species-specific type of impacts and different types of things. In reality there has been very little done with the types of species, the types of habitats, the areas of South Atlantic Council concern. I think that is something that really has to be pushed further.

I think the ones that really have taken the lead on it were the alternative energy group, because they had held that Sound and Fish Conference a number of years ago to set the stage for research. The problem is that there still isn't a lot of that type of thing done in terms of the actual impact on the organisms associated with the habitats or any of the species that are either migratory or using the area. I think it is really important to keep on this, and I think our policy is going to push the review and I guess laying out what we really need to know as we move forward with that.

MR. BROWN: I can't remember, was the 3D technology; was that being already utilized in the Gulf or was that something new that they were trying to explain to us?

MR. PUGLIESE: I think they probably used virtually every technology in the Gulf of Mexico, and it may be the first time they are using it in the South Atlantic. Mel probably can get into it, because he has been working real closely on this.

MR. BELL: Yes, after the Habitat meeting, I went over to an industry briefing and all; but 2D is how they start out. But they made it quite clear if at some point in time the 2D shows that there might be something of interest, they will go to 3D. As they put it, they are not going to sink a well without doing 3D.

It is just 3D is more elaborate with many more sound sources and all. It gives you a 3D picture; but they will start out with 2D. A lot of the stuff that we've reviewed is 2D so far; but the plan eventually could be that they would go to 3D if there is something out there.

MR. HAYMANS: Okay, any other questions, comments, for Pat and the AP report? Okay, Pat you are going to be around for the rest of the day?

MR. GEER: Yes, I will.

MR. HAYMANS: If something comes up and you have a specific question or if during our discussions here something comes back what the AP feels, he'll be here. Okay, next on the agenda is Roger and the status of FEP II. That is Attachment 2 in your documents if you need to look at that; as well as on the screen.

MR. PUGLIESE: I wanted to catch up on activities on FEP II development and the associated ones supporting the move toward ecosystem-based management in the region. A lot going on with our partners that are going to make this an effective tool and an avenue to advance what I think the council is trying to get to in the long term.

MR. HARTIG: Roger, for the public; just tell them what FEP is.

MR. PUGLIESE: Okay, sorry; I've lived in acronyms too long. The Fishery Ecosystem Plan is the council's attempt to connect all the information we have on species, on habitat, on fisheries, on non-fishing activities and how we understand the system operating and what the council can do to better conserve and manage and move towards ecosystem-based management.

It evolved from our habitat plan, which documented habitat. The first Fishery Ecosystem Plan connected the habitat information with all the fisheries, including council-based fisheries, other

managed fisheries including highly migratory species; our partner management with the Mid-Atlantic Council species, as well as Atlantic States Marine Fisheries Commission. This is the step with Fishery Ecosystem Plan II is to take the step even further to enhance efforts on ecosystem modeling, refinement of our understanding of food webs, climate variability and beyond. This is the next generation; the move toward ecosystem-based management.

With that, I was going to touch on the FEP process, team membership, where are we going with some of the webinar development and potential facilitation of this; also enhancing the ecosystem plan, as well as enhancing the process; some participation issues that I had already raised earlier on; and the coordination supporting this.

The completion of EFH policy statements in development; we have had a number of those which are subsections of the plan already that have been accomplished. The energy policy is advancing. We are going to initiate further the artificial reef policies, engage as we get the groups on connectivity and fisheries oceanography and connectivity and food web; to develop policies that are going to drive that.

That is going to be something that is evolving over time in the next stages as the process. The review and revision of sections is ongoing. We have fine tuned the participation of the groups in the last stages of some of the species-specific; and I may tap individual members to make sure that we have some of the ones that we didn't have as filled in terms of species information that may be state-based information on spiny lobster, dolphin and wahoo, some key ones that we really still needed to shore up for the final version.

This is all moving toward additions of the new sections I had already mentioned; the fisheries oceanography and climate variability and food web connectivity and initiating a regional mapping strategy through our partners with SEAMAP, the Bottom Mapping and Species Characterization Workgroup.

Ultimately all of this potentially additionally providing EFH revision updates that is supported for the overall five-year review. The document structure I have laid out before. I am just going to highlight a couple pieces of this. I've talked about the front-end discussion on the introduction overviews; our habitat and species we're refining through the process.

Some of the other efforts, that are actually externally, the State Comprehensive Wildlife Strategies are being all updated and will be integrated as they are finalized by individual states. There is definitely some connections with our modeling efforts, with other efforts through understanding change analysis in the region.

The one I did want to highlight further is the engagement of the SEP in the human and environment section of this formally. While we didn't have enough time to really get things initiated this last meeting; we are going to distribute the materials to the SEP members in terms of re-verifying some of the methodology and the information that has been developed on where we can go with this, with ultimately getting final input with their next formal SEP meeting, which will be April of next year.

Threats, as Pat indicated, we had extensive discussion on fishing and non-fishing threats at the last meeting, highlighted a number of comprehensive documents that have been prepared

through some of other NOAA regions that we can draw on; and working very closely with a team, one of the review groups, but also very specifically many of the NOAA Fisheries partners on refining that information section for this document, both those two, both non-fishing and fishing to highlight what we need to know.

That will also be highlighted at the upcoming November AP meeting and almost more of a workshop type of a capability at that meeting to refine them. A number of you have seen before these books. I will just touch on what the scenario is, is development ultimately of all the individual habitat sections in addition to the individual species sections, and then some subsections in terms of the new sections on food webs and connectivity, fisheries' oceanography and climate variability.

Research and monitoring is a subsection that is going to also have another review at the November council meeting. Again, we are going to take advantage of other partner efforts. We have a SEAMAP five-year-planning effort, which highlights all fishery-independent connections through the efforts of all the partners.

I think that is going to be really, since that is already ongoing, a very good core foundation. We are going to engage our SSC with Marcel at this meeting; and since we're going to be in FWRI, Luiz Barbieri and others to enhance that whole discussion as well as connect to some of the research capabilities of our partners.

I already highlighted mapping characterization. Any of the spatial representations of EFH and HAPCs, as we combine information that we know on these individual species or habitats, we're going to use to tweak. One of the aspects that we're going to also connect into is our partner with – the Landscape Conservation Cooperative funded some regional presentations of habitat, both bottom habitat and estuarine habitats.

We're now getting into seeing some of that and actually connecting it and seeing where it may be able to enhance EFH or in combination with other efforts; some new modeling efforts say of bottom habitats. The combination may be able to give us better representations of those spatial representations of EFH or HAPC in the region. I think that is going to be really important in building on efforts and funded efforts that have already happened.

Touching on some of the efforts under the new section development, one of the most significant ones I think is under the South Atlantic Fisheries Oceanography and Climate Variability. One of the keys on this one – and it is a timing issue in terms of where we advance this – I think we had the real opportunity to – in this case it is kind of highlighting the core of what this is going to do; is describe the state of the South Atlantic system; so it can look at both the inland land, ocean interface, and ocean; both describing the oceanographic environmental variability of change, describe links to the managed species and habitat, and describe the effects of variability and change.

The key here is the next statement where it is going to build on the modeling effort. One of the things we did do, and we'll get into really more detail when we have the presentation coming up, is engaged a lot more effectively our oceanographic partners with the Ocean Observing Association and the individual organizations that are developing models and are providing that capability.



They are both going to be engaged in that effort, but also are going to be a core part of this kind of a two-tiered effort under this section that is going to bring fisheries, oceanography and the individuals in understanding climate and change in here. Not meaning to downplay, I didn't put in the food web and connectivity; again that is the same thing.

There are some direct connections with the modeling efforts to do the food web analysis, and then the connectivity with partners that are looking at all the connectivity from land and into the sea, and then connectivity between systems as we develop potential models that actually could ultimately provide us linkage information between managed areas and beyond.

MR. HARTIG: What are we doing for areas that aren't being monitored that have some substantial changes in the oceanic conditions over time? Are we getting with our NOAA partners and making this known that these particular areas, especially in the Straits of Florida where you have the Bahamas and the shelf, and that constriction in that area; and what we're seeing as far as oceanographic changes; as far as Gulf Stream slowing down, eddies increasing, cold water influences increasing. There is a lot of anecdotal information coming to that. Miami has been interested in trying to document it; but trying to get data that actually allows you to do that has been pretty tough.

MR. PUGLIESE: I think the fact that we are assembling the group that we are of individuals and really bringing together the modelers, the oceanographic modelers, and the biological side of this, and direct connection to our SSC; everything is really intended to begin to really a lot more formally address that.

Because at the NOAA side some of that I think is there just has not been the emphasis. Wait until you see some of the work that Ruing and Hee and some of these others, and really linking complex model capabilities' and information; I think it is not only going to give us some ability to understand that and document it, but also give us the indication through our partners like SECOORA to say where should assets be that are monitoring better the information that is being gathered.

We are literally coming off of a back-to-back SECOORA meeting; the Ocean Observing Association, the board meeting that set the funding and priorities. In those priorities it was very important to include models that are going to provide us information on upwelling events, provide us information on information that could link into assessments.

I think the message is really getting driven there. What that also will mean is what types of technology are going to be needed to do that, how can that be enhanced through glider deployment. One of the newest thing that is coming out of SECOORA is them formally being part of the Ocean Acidification Network.

They are going to be driving it through that so that they are going to be outfitting capabilities that are going to expand the ocean acidification and also the acoustics information and outfit acoustics on all the existing buoy systems or at least a majority. I think there is a direct effort to try to not only know what we know, but also build the new capabilities to really get to the types of questions and focus – especially with the technology innovations; the ability to collect more information.

I think even some of the connections with vessels of opportunity for refined information is a message that has been clear. I raised that at the SECOORA meeting about engaging other partners, but whether it be fixed systems already like fishery independent, combining/connecting that on a routine basis, or vessels of opportunity through commercial and recreational vessels; beginning to see if some of this new technology can be deployed to either map or really carry and be a footprint that documents and refines the kind of surface to bottom temperature, current, all the types of thing.

That is the key I think is really getting the full image of the ocean system. That is where a lot of these existing capabilities don't have that full function that you can understand. The way the system operates is not purely a surface system. Some of the models are getting us there, but I think the technology is going to be really where we invest in it.

I'll make a note at the end about one of the things that we may want to do in September is have a technology session on where some of those advances may be able to provide us those into the future. I think that might be a really good thing, because there is some amazing stuff going on; ROVs, AUVs, and then just capabilities that can move us forward.

Many of our partners have some of this in hand, and it is going to take just realignment and focus and we can get further. A long answer to a short question, but hopefully at least there is intent to go a lot further. Then also engage, like I said, the partners and fisheries' people that are on the water all the time versus just saying everything has to be based on the observing capabilities or monitoring capabilities.

DR. LANEY: That is an excellent question, Ben. One other thing, Roger, I will mention is that a lot of our partners or at least some of our partners are now getting wave glider technology. I know East Carolina just has one that should be delivered soon that was funded by the National Science Foundation and BOEM also is getting one.

One of the things that I've suggested to them is they need to, to the extent they can, coordinate the use of those things in the glide pass that they're establishing to try and avoid duplication of effort and complement each other where they can. I know the East Carolina one is going to have a lot of acoustic receivers on it to be able to detect fish with acoustic tags. I'm not sure exactly what the BOEM one is going to be directed at.

But that is additional technology that we haven't had in the past that is a whole lot cheaper than surface vessels from a daily operating perspective. But, my eyes were opened when I was talking to Roger about the East Carolina one last week; Roger and Joe Luczkovich actually. There are things I don't think about, for example, the need for the universities to insure these things.

They cost 18 grand a year just to insure the thing against loss. One of the ways they have to pay for that is to charge people for use fees for the things if they want to put some sort of a device on there. We are not going to get anything for free I think is the bottom line there. The funding always comes up as an issue.

MR. HARTIG: To that point, Wilson, I think as we go through this, we need to keep in mind, and Roger mentioned it, about the citizen science, fishermen on the water. We can put acoustic

receivers on fishing vessels. There are certain times we have gears on the bottom that may be better applicable to pick up detections of that kind of device. There is a whole suite of things that fishermen can be involved with, with this information, and at a much cheaper cost frankly than the \$18,000 it cost to insure that one glider. I know you guys are aware of it; I just want to remind you of it.

MR. PUGLIESE: Yes, and also I think it is key, because one of the things that is sometimes not even thought about, even simple environmental collection from these vessels is going to fine tune some of these flow and temperature models where they become a lot more realistic in terms of what their footprint is over an MPA or whatever and understanding the real dynamics that are driving why the habitat is there, why the species is there, where the migration may or may not happen in that area.

I think those become a lot more powerful, even the simplest information, because again on water in such a broader sense than any direct monitoring and over a broader time period I think; and that is extremely important, because you can never have enough of a scope, because so many things are done in small snapshots. That might be able to really provide both the spatial and the temporal level that you really can get to some real stuff that is going to be a lot more useful.

MR. BROWN: I'll just be brief, but I went into my local marine shop to ask on a new technology; and they mentioned something similar to this, the stuff that has come out that is available to the public now. They call it CHIRP technology. It will bounce these radio frequencies and they can actually – and they say they are using a lot of it in the northeast right now, and that they are real successful in identifying specific species with this type of technology, and that it is expanding out; and that each fish gives off a specific sound so that they are able to tell exactly what they are. They said that this is available now and it is going to be even more progressed on as time goes by.

DR. LANEY: Mark, could you spell that CHIRP? Just what is it, like c-h-i-r-p; is that an abbreviation for something?

MR. BROWN: I suppose.

MR. PUGLIESE: I can follow up and provide it. We had discussions about some of the applications of CHIRP and if the vessels that we were talking about actually had it in place. Again, it goes to the issue of potentially in technology sessions, because I think these things are happening so fast, and some that are going even beyond into the future of some six-month deployable capability. The technology is moving so fast right now that it is going to provide a lot more for a lot less dollars, which is great.

MR. HAYMANS: Good discussion. Roger, do you want to continue with the presentation?

MR. PUGLIESE: I guess the enhancing FEP development, the November AP meeting, Habitat and Environmental Protection and Habitat and Ecosystem-Based Management AP is going to be meeting. The intent is to have, as I mentioned, those number of different facilitated sessions that are going to advance threats or advance ecosystem research, advance a number of these different efforts and policy statements, because the energy policy is going to be advancing.

The intent is that the artificial reef policy be advancing; and then as information developed for the food webs, connectivity and climate variability, those may advance in that or we're just going to overlay that session I think. I think we're going to do as much as we can to get as far as we can.

It is two days now, but I had already threatened that we may have to go to three days with this or at least another part, because the group itself added in some type of fast threat analysis they would like to be able to do. To add all these pieces together we may just have to have the time to be able to accomplish this.

MR. HAYMANS: Do you know those dates, Roger?

MR. PUGLIESE: I think it is the 17th and 18th of November, but I'll send this out. It may be the 17th, 18th, and 19th. It is at FWRI directly in St. Petersburg. Yes, we were able to take advantage of the facility there. I think there are a lot of other partners that are going to be able to get there easier.

I mentioned already the discussion on updating impacts on fishing EFH in non-fishing activities on that. One of the things I did want to highlight is the opportunity with the FEP to really enhance our understanding of the combined information on spatial management in our region. I think it is really important that this is going to be the first snapshot where we really combined it.

Before we piecemeal the discussion, I think there is going to be more of an opportunity to combine these together and understand that we're going to have the ability to understand connectivity between marine protected areas, between those and the Deepwater HAPCs, special management zones and any of the other habitats or areas, and then really put that in relationship with the oceanographic information we have and really advance our kind of combined view.

I think our partners with the LCC and the bigger picture understand that, and it is going to help move us to some of the next things that we're going to be discussing. This gets to enhancements of the process. One of the things that I'll touch on further is the ecosystem modeling work. I was advanced the opportunity to really engage almost as an ad hoc technical workgroups, because we already have members that are coming together to do the modeling.

One thing that I have not had a chance because of my unfortunate accident last year and trying to do it is to advance the geographic information system coordination. I am still getting notes from Don Wright Ocean's Coordinator with ESRI to work together to do this. We advanced way further with the Landscape Conservation Cooperative.

Some of the technology they are using is phenomenal. The opportunity to bring what they're doing with what we're doing and our efforts with the Southeast Resource Partnership, SARP, their efforts with spatial information analysis on streams and, et cetera, are going to really bring it together.

The intent is to have that group sit down with essentially ESRI staff and figure out how to build the better connection between these systems. Ours, of course, is not advanced as far ahead without the partnership we have with FWRI. It is driving the show on how far we have gone with the atlas, with all the different capabilities.

Those are some things I think we want to kind of advance that coordination a step further. One of the things this leads to is the coordination efforts. I've already highlighted most of these things. I think we're coming right off the Landscape Conservation Cooperative ExCom and Member Steering Committee Meeting, which had approved budgeting into the future.

I think the intent there is to build better linkages between the Fishery Ecosystem Plan and the blueprint effort at the March council meeting that we had an update from partners on where that is going. It has advanced pretty significantly since then, and there is an intent to create a version 2.1 with one of its very specific things is refining the marine connection into there.

The section development I've already touched on, enhancement and working with them on that. One of the things I would like to highlight is that direct link with USGS Climate Centers that this is going to advance. It goes even beyond that; because one of the things – I talked directly with one of the representatives, Ken Rice, about they may be funding a position or potentially a grad student to make that connection in evolution on how we're working with the blueprint to be able to be involved directly in some of the modeling.

They are involved very heavily in mapping efforts in other areas, so I think there is some real opportunity to link and connect what they may be funding with exactly what we're working on. Again touching on that, a lot of that information will also facilitate refinement of information. That was the blueprint area. It really does show with working with the LCC is understanding how the river systems are connected, how the offshore systems are connected, and how we go beyond.

There is really opportunity to refine this into the future and connect it with our ecosystem planning effort. The Ocean Observing Association, I've already touched on a lot of these aspects about how we're going to advance some of the capabilities. When you were discussing the use of the glider systems and beginning to deploy different ones; if you go into the modeling presentations I had provided – I know everybody is overloaded with so much at a council meeting – Ruing Hee has worked with North Carolina State and very specifically showed glider capability of being able to track, and then surface the bottom, characterize the entire area and then even take it a step further and begin to connect that to species' movement patterns; some real powerful things.

These are the people that are making this stuff happen. We just need to align them close with fish now and the capabilities, and that is what we are definitely doing right now. It also set the stage for a lot of the climate information and the variability; because the connection of two down-scaled climate models to efforts the other partners are already working on, and just leverage those and advance the council's efforts; again SARP working on refining some of the characteristics.

One footnote on that; the habitat plan is already an appendix to SARP's habitat plan to the council plan, because it did look at very specifically how we look by area and maybe some guidance on what some of the things should be to advance conservation on streams, conservation on marine habitats and estuarine habitats or EFH designations, or EFH footprints; advances on those. There is an effort to refine that so the intent is to incorporate the refined habitat plan as developed.

That moves to the ecosystem modeling workshop I touched on. We were lucky enough to partner again with Tom Okey, who was funded through Pew to generate a forage-based and to some degree a climate-based type of an ecopath model to look at what some of the implications of large shifts of populations may have, and begin doing “what if” scenarios on species implications.

If you have half of your prey populations disappear, what types of shifts you could potentially see. It really set the stage for again opening a door of a many-year coordination effort we have all the way back to when Lenfest “Sea Around Us Project” did the first ecopath model. We did a strawman model and we were just timing on that.

This is evolved to the latest stage. The intent now was in initiating a modeling workshop was to build a new model and model suite that really brings in all the newest information on assessment, on species, investigating oceanographic connections, habitat connections; and really take it to the next step.

I’ll not get too far in that because we do have the facilitator. Brett Boston is going to get into a little more detail about where we’re going from here and not necessarily have the say about what we did there, but really taking it to the next step already. A number of you know a lot of the tools between the Atlas, the Digital Dashboard.

I think when you all are discussing some of the efforts on the communications for the visioning, this is where some things I’ve got to work with Amber to highlight more of what we do have available on information. Then one of the last things that I think a lot of this discussion is going to take is this ecospecies effort. The tool work on the species-specific information, on status, on habitat, on threats, we were even talking about expanding this to include sound capabilities, impacts.

I mean you can go way far. We built the system and it is going to be able to be advanced a lot further into the future and connect directly, hopefully, to the FEP sections, which moves us to the last thing on timing.

We’re moving with a number of the different EFH policy statements. We’re advancing the AP’s deliberations and engagement, the workshops. This is going to move down through essentially into 2016 to finalize these. Originally we were thinking June, but it may push it into December.

I think the biggest thing is we don’t want to lose any of the leverage points that we’ve been doing. The time has actually helped us to be able to get resources to actually get some of the bigger things like moving the modeling efforts forward, moving some of the advancements of our distributional information forward.

We’re taking advantage to the maximum degree possible these types of things to make sure that when we get to the stage with the FEP; that we are moving forward with ecosystem-based management, and we have support information, capability tools, and understanding based on as much science and also set the stage for even beyond into the future. I think all the partners are really already setting that trajectory of capabilities. That is it on the status, which is a lot; but we’re moving forward.

DR. LANEY: Just a comment Roger. Looking at the outline for FEP II, it strikes me that not very many folks, Ben Hartig probably being the exception, are going to take the time to read through all six volumes of that document. What I would like to suggest is that we consider producing sort of a cliff notes' version that will be much more user friendly.

Bob Beal, the example that I can think of right off the top of my head is with the ASMFC American Shad Stock Assessment. We had a three-volume set there that covered the whole east coast, but we produced a very small summary document that had all of the take-home messages from those individual riverine assessments within it.

I'm envisioning, Roger, some sort of a similar document that we could produce to summarize especially for the public but also for state regulatory review folks, maybe, what are the take-home messages from this document insofar as threats, habitat functionality, and so forth and so on; something that somebody could really use to apply directly to the work that they do day to day that would have immediate utility and would preclude them having to wade through all six volumes to ferret out the information they need.

Having said that, those of you who know me well know I am more of the six-volume kind of guy than I am the short and useful kind of guy. But, still, you need both things. You need the six-volume set to build that administrative record, but you also need that cliff notes' version for the public. I think that is critical.

MR. HAYMANS: But who can we get to produce that?

DR. DUVAL: I actually had a number of questions in just thinking about this; a number of thoughts as well. I think there is more opportunity to utilize the website and the fishery ecosystem web page that we currently have to illustrate all the great work that is being done. It would be awesome to show sort of progress on FEP II.

For instance, I know, Roger your accident definitely set the timeline behind a bit; but having lists of the members of the different various technical workgroups that you're putting together, I think maybe what the timeline is for completion. I think one of the questions I had is – and I can't remember what the first version of the FEP – does it go out for public comment and input?

MR. PUGLIESE: Technically, no. What we had was the Ecosystem Amendment moving forward, so it went in tandem because it had the coral information background. It went in combination at that point, because it was part of – you had a formal process for the amendment moving forward and this was background support information.

It went out because it was available as part of that process. Right now, unless there becomes a tandem amendment, it wouldn't necessarily be in an action effort unless there were specific refinements of EFH designations where maybe there would be a comprehensive amendment for EFH or some other type of actions.

I think we had some of this discussion before, and I think what would be good is to figure out a way to get public input on it at a level that may not be at the public hearing level, but I think building on the capabilities you're talking about and about what we're doing, where we're going. That may be a vehicle to then have a point in time where we have draft available and be able to

get input as we're moving or some periods of issues where there could be input. I think that is going to be a creative effort to maybe make it even more valuable that way.

DR. DUVAL: Yes; and I think just following up on that, thinking about some of the things we're doing through visioning. Like putting together webinars that are sort of topic-based on each of our four focus areas; I could see having informational recordings or even webinars as you get further along, you know, here are the major components of the fishery ecosystem plan, and that gets a little bit to the cliff notes' version that Wilson was talking about, and I think also helps to get the word out there.

I would love to see sort of the final list of the technical experts for the different workgroups. I think by having that type of information available on the web page, people can see and understand that we're trying to really move towards an ecosystem approach with this thing. I think for me one of the most important things is once it is completed, which sounds like from the timeline that you showed in there would be the end of 2016 or mid to end of 2016; how do we institutionalize or operationalize this?

We have this Fishery Ecosystem Plan over here, but how do we utilize this to actually inform actions that we're taking through our fishery management plans? I think as I've tried to think about this, one of the things that come forward for me is like a two-year implementation plan. We have these major strategic things within our fishery ecosystem plan, but tactically here are the ecosystem actions that we're going to be taking across our fishery management plans or within our fishery management plans.

I would like to see this be an instrument of change, to be quite honest, and something that we can use a little bit more tangibly. Those are just some thoughts that I had. Then I guess just a specific question in terms of we've reviewed a bunch of the policy statements and approved those. I just didn't know if you had a sense of when the climate and oceanography and the food web policy statements would be reviewed. Would that be in November by the Habitat AP?

MR. PUGLIESE: I don't think it would be November; because just the timing to get advanced, I think it is going to push into probably March. I think what we can do though is one of the things I was proposing is to try to get both of those groups do some facilitation of those efforts so that it can lead to I think more rapidly policy discussions.

We can actually probably get a lot more of the foundation, and maybe we could have at least outlines or whatever that that could be advanced at the November meeting. The finalization I know would not actually happen at that point just because of how many other things that we've got to get moving.

We can keep that process and the information for those sections and the sub-coordination. Like I said, one of them is going to be coordinating essentially – like almost two groups that are going to coordinate with the fisheries oceanography separate and that. Then ultimately they are going to coordinate on how they connect.

That may take a little bit of effort to have some facilitation with that. That is what I'm proposing is kind of maybe building on how effective it has gotten us modeling to getting those groups further down the road and ultimately the actual policy. We will advance it as far as we can. One



addition to that; I think one of the other things we want to do is you've got the Lenfest Fisheries and Ecosystem efforts going on.

There was a discussion about potentially having kind of a general highlight on some of the guidance at this. It is going to get finalized, so September we're going to have some of that. I think we want to be able to again work with some of the other partners to be able to tease out those but also inform them. Our connection with the LCC is very different than anybody else in the region and that may provide us tools or capabilities that we can advance on.

MR. HAYMANS: But I guess sort of my understanding of how we used FEPs up until this point was reference material for IPTs and whatnot; but I see as these models become incorporated, they are going to actually wind up being used in the assessments and things of that nature, I guess.

MR. PUGLIESE: Yes; and I think that is the key is that some of the pieces – and that is why this next section we're getting ready to discuss is really important, because what it is doing is actually providing some opportunity and capability that is going to advance some direct effort that is going to provide capabilities either through the SSC's evaluation, by giving them the capability to understand that, or integration of these model inputs into assessment or tools that the council can evaluate or compare some of the management effort. There are some direct efforts that I think that is going to advance those types of direct management needs rapidly, I think.

DR. DUVAL: Just a couple more. So for the different technical workgroups with the facilitated webinars that it looks like you're looking towards having for them to do the bulk of their work it sounds like; have any of those been set up yet? Do you have a schedule for those? I'm just thinking it would be interesting for council members to be able to just listen if possible. I know we're not participants in that, but I think it would really help folks to embrace that moving forward.

MR. PUGLIESE: Yes; and I think that is why I proposed at least those two major new ones are going to be that way. I think that would be something that would be more likely to have that type of engagement and the ability to have external listening and all that. The other ones I think are going to be essentially presenting this is the core and then where we advance from here.

Then it is going to really be in like the individual species or other teams to begin shoring up the information. That is very different; but these being so new and connected, I think would be very informative. That is why I had talked about making that a little bit more of a process to be able to do that. We're going to essentially be scheduling those immediately as we start from here is to align the groups further and scheduling those right after this meeting.

DR. DUVAL: I guess maybe just one final thing, because I know we have a couple other things on the agenda, when we reviewed, I think it was last year sometime, just the different names of the technical groups and we moved to like food web connectivity, it was like a little bit more accessible set of terms.

I think originally we started out with climate change as one separate group and fisheries oceanography as another separate group, and they sort of merged. I mean obviously so; they are

very obviously connected. I think for the public it is about how is the ocean changing or what are those changing ocean conditions? Maybe considering I guess a titling of that group that might be a little bit more accessible to the public so they are like, yes, these guys are considering this, which is so important, and this is what we see on the water as fishermen. I just kind of throw that out there as food for thought.

MR. HAYMANS: Okay, any other questions or thoughts for Roger on this update? Okay, next on the agenda then is a report on the South Atlantic Ecosystem Modeling Workshop, and, Roger, if you would introduce Brett for us. I don't know how many of the council knows him.

MR. PUGLIESE: I would like to introduce Brett Boston. I've known Brett for a number of years, because Brett and the group that he is involved with facilitated essentially the entire South Atlantic Landscape Conservation Cooperative from its inception to where we are now. That was the most successful of that effort. That is a national effort.

It is to a great part their ability to take complex information and needs and raise it at a very high level to advance that process. I've been trying to figure out a way to engage them directly in some of these efforts. There is such a synergy between what is going on with the LCC and the council's efforts that this was a perfect opportunity to bring him forward.

What I would like to do is at least let Brett give you a little bit of background about himself in terms of management and coordination. He has very close ties directly with the state of Florida and efforts that are really facilitating conservation in the long term in the state of Florida.

MR. BOSTON: I've worked with the Fish and Wildlife Commission quite a bit on hatchery issues and some of us engage in some discussions on that. I also work with their science team; also an Executive Director of their foundation, which provides a good deal of support for what FWC does.

We are their nonprofit arm as well; and have been working recently with Georgia foundation as well with some support stuff. I did the Peninsula Florida LCC planning with Tim Breault, worked a lot with Luiz Barbieri on a variety of issues. I also did the South Atlantic LCC strategy, the Appalachian LCC strategy, the Caribbean LCC strategy, several of the national technical strategies on LCC, and worked with NOAA recently on their Caribbean strategies.

I have spent a lot of time on those long, large landscape efforts kind of planning stuff as a background. I am not a scientist. We had a great meeting at FWRI, and I think you will see it was a pretty darned good team of folks that came into that meeting. The objective there was to really create, develop and refine that ecosystem model and a suite of tools for decision support. I think that it is important to have a suite of tools that have two directions.

One direction is to support policy; and that is one of the things that South Atlantic really focused on was you need to be able to inform on-the-ground actions; but you also need to be able to inform the decision-making capabilities. The team that worked on that is listed there and I won't read them off, but a really, really good group of folks spent two days really beating on putting together a lot of modeling.

The fiscal modeling components were pretty exciting. We had a lot of variety in that if you realize you don't have the ability to go look at almost a terabyte of data in process; but if you did get in there, you'll see there were some really bright minds and some great modeling that were in the room. The key was to start putting some of the hydrodynamic stuff into the play.

Folks like Mitch Roffer and others that you know real well participated in that and provided us a lot of really great ideas on what is going on there. I think at the end of the day looking for a model that will allow us to incorporate not just the habitat components you want to talk about and not only linked to the shoreline issues coming out of the South Atlantic and also out of Peninsula of Florida, estuarine, et cetera; but also to broadly look and add the hydrodynamic and oceanographic issues; salinity, et cetera, I think is going to be real important for the model.

What we looked at is from a decision support side is to talk about your science folks and make sure that they've got a way to engage and have some additional validation of the work that they are doing, some stuff that lets them as well as perhaps useful tools for you guys as you begin to look at red snapper.

Perhaps we can talk about gray triggerfish and some of the upcoming issues, wouldn't it be nice to have some additional decision support tools that will let you know, well, even if we were looking at one set of models that we use right now, but wouldn't it be great to have a verifying set of models or something that looks a little more predictable coming from a completely different angle.

Then it helps us really from there to say what is that data technology and the coverage needs that we need for that. The features of the models were really to expand the spatial management capabilities of what you want, the ecopath models that are there, to start linking that with more fiscal and chemical oceanographic models; currents, salinities, et cetera, temperatures.

Then we also wanted to make sure that you had the connectivity along the coastal region, so connecting to the South Atlantic LCC model was really a neat idea. The South Atlantic LCC met last week in Richmond, Virginia. We'll talk a little bit more about it, but two things. One, they made a strong commitment that in their next release of their models, which will be 2.1 – they didn't want a full going to 3.0, but they would have a far greater commitment to the connectivity from estuarine riverine out into the ocean.

They are one of the few that is actually one of the few LCCs in the nation that has actually taken on the marine component. Also, from the Peninsula of Florida LCC, Beth Stiles, who is the chair of the South Atlantic LCC, but is also science coordinator for the Peninsula of Florida; she has agreed to start linking the Florida clip information that the Peninsula of Florida has and start to look at the estuarine issues particularly along the Atlantic coast.

You're seeing movement from the LCC to provide enhanced data for your guys in terms of linking their models. I thought that was pretty exciting. We need to really refine the essential habitat and fish habitat and modeling pieces as well, Roger. By the way, interrupt me any time on those things.

On decision-support tools we really do need ecosystem-based tools that really help you guys, perhaps, and this is just a crystal ball reading on what we thought you might want. The real

question would be from the team to ask you what you actually want, as you will see. Tools that might help you look at policies and tradeoffs in there might be a nice decision-support layer to have.

Look at the management objectives, conservation profits; those kinds of tradeoffs would be great. Then how do we integrate environmental data into stock and the management process as well; so we looked at some of the decision-support tools at a high level that you might look at. Another thing the team did is start talking about deep features in the science of the model, and look at the natural variability from the physical and biological components within the model, the uncertainty in stock projections and really characterize it and give you some new tools to look at that uncertainty and help you understand it better.

Habitat, environmental, ecosystem, dynamic fuse, and then really planning and evaluating some of the spatial policy options as you look across the ecosystem there. Model 1.0, I am looking at this in two cuts. Model 1.0 is really to get a first generation model out there. In doing that really work directly with you guys as well as the science folks to make sure that we can get something pretty good as a starting point. It will, like all Model 1.0s, be kind of ugly, but one of the things that was emphasized by Rua Mordecai from South Atlantic LCC is to use a lean start-up approach, which is build the darned thing quickly.

Then enhance it; don't wait until it is perfect five years from now and it will be of no value. The idea of lean startup says get it out there; take available stuff leverage what is already there; look at all these wonderful databases we can link to; get people engaged; give you a tool, and then rip into that and then make it better over time.

But do it fast and go through these iterations quickly so you have a useful tool, and you guys are actively engaged in designing it. That is some of the piece there. The outcome there would be to really get a new ecopath, ecosim, ecospace model completed quickly and Roger can address quickly; but we're well on that.

Then 2.0, a second generation, again if you're using lean startup, really the start to actually give you guys some tools in the not too distant future that looks like better stock assessments, ability to evaluate some of the areas that you've got to come up with conservation priorities for, and enable evaluation of the fishery projections; so almost another set of tools for that.

Then really those are some of the features we've talked about, but I can tell you coming out of the meeting last week there is a real support for linking along the coastlines initially. There is funding for that as well as through SECOORA. Steps to go would be start with working with the managers and decision-makers to start what do you need.

The group in the room, you had Marcel and Luiz in the room and folks saying here is what I think we want as decision-makers, but I think it is important to start with the end in mind; what are those decision-support tools both you need and the science teams need? Then get the folks out there and recruit a long-term group of people that can help from a research side and make this better.

I think Roger has done a good job of getting that group started. Then sustain a technical advisory group that can really make sure we're on the leading edge and that we've got a great

looking product. It is really almost – peer review is too strong a term – but something that looks like it is really a thoughtful product that they would feel comfortable with. It is going to take multi years of modeling.

But then I think ultimately down there establishing those linkages to the coastal ecosystems, estuarine river systems; that is a smart move. That engages now the thing that I know your fishing community cares about is what is going on with this coastal habitat and how do we actually link those juvenile fishery areas.

That to me is going to be an important piece, so that is what we came up with, two exciting pieces. South Atlantic has basically made that commitment in their budget that they will fund some dollars towards making the connectivity in their blueprint, get those linkages going. Probably some dollars for a grad student coming out of, I think Roger mentioned Ken Rice, USGS – Ken has talked about putting some up there, getting some people to work on it.

There will be some dollars coming out of the South Atlantic LCC to make this connectivity. They see it as an important next step for them. Then as I said, I think the Florida plan through our Florida LCC will also begin adding some stuff along the east coast for their estuarine components as well.

Then SECOORA, as Roger mentioned earlier, stepped up and really said they are going to change the way they look at or enhance the way they look at some of their data gathering. I think the ultimately robust plan and expert model development team, if we can put that together you are going to be in the best position to leverage any dollars that are out there. I think you have really good partners to move forward. Terrestrial-based partners are nice to have in this effort as well.

I think that leads to a pretty cool overall product here. That is what I had for you. I thought the workshop went great. You've got an expanding group of scientists like I know Pat Halpin at Duke now is on board, and you are starting to see other grad students come forward. You are seeing the university folks are going to be coming on board, and I think that will be exiting is to get as many partners in this as you can going forward, because it leverages a lot of science, a lot of research.

I always try to establish in every team a value that says do not duplicate the successful work of others. If there is a lot of work out there, all we need to do is find it and connect it and spend a lot of time doing that; much more than trying to connect all new stuff. Spend your dollars collecting data on where you have gaps.

DR. DUVAL: Thanks, Brett, that is a great presentation. It is exciting to see this sort of thing and to see consideration of decision-support tools, because that is kind of what it comes down to when I talk about things like how do we operationalize this, how do we institutionalize it? I am on the Lenfest Ecosystems-Based Fisheries Management Task Force Advisory Panel.

Those are exactly the kinds of things that we were talking about in our meeting in May is sort of how do you operationalize these types of things, especially given differences in governance structure throughout the country. But one of the specific questions I had in terms of the modeling is sort of how will these tools that we're developing and leveraging from these

different sources, like the LCC and SECOORA; how does that dovetail with some of the efforts by our NOAA Fisheries partners? In the participant list I guess I didn't see anyone there from NOAA. I just was curious what the plan is for moving forward there.

MR. PUGLIESE: We are going to engage further any other activities. I think the key on the ecosystem side is that most of the investment from NOAA Fisheries or other aspects have been outside of our region. To some degree, that is why we had advanced – plus we had history on some of the ecosystem efforts we had with ecopath, ecosim.

To the degree we can expand coordination with our partners, say with the Beaufort Lab through Todd Kellison and others, I think that may be another connection we have and become part of the team and advance that further. Right now as far as I know there are no plans for say some of the work they've done in other regions like integrate ecosystem assessment.

That is not on the radar for the South Atlantic, so the investment from that side of the thing isn't in process yet. What we've done is try to do as much as we can with this and engage – something different, too, is in some of the other regions they have everything under the umbrella of NOAA, all the fishery-independent surveys, et cetera, there.

In our region it is truly a collaboration on the whole fishery-independent survey system. While partitioned in the different things, the data information system is housed now under South Carolina DNR as part of a SEAMAP process and engages the entire SERFS and other fishery will have direct connection with that; with Marcel, with Luiz, with myself on making sure that is happening.

That connects into the work that SEFIS is doing. We had engaged at a national level with the ecosystem office at the last council meeting on where they're going and had been committed if there are other things and capabilities. I think one of the things we're going to try to do is to advance what we have and then where else we can get NOAA Fisheries to weigh in or National Ocean Service; I think NOAA has a number of other capabilities that they can probably provide.

We're already doing that with some of the things we're doing with the Oceanographic information, in terms of the NOAA components, because they are already heavily engaged or providing information that is going into many of those products at this point. It is not trying to dance around. What we're trying to do is as much as we can and as we can coordinate and collaborate further on advancing this further, we are glad to work closer with Bonnie and others to advance it.

DR. DUVAL: Just a quick follow-up, I guess. I'm thinking also about sort of the agency's focus on things like new techniques and management strategy evaluation and things like that. Like Brett said, it is about tradeoffs when you talk about ecosystem-based fisheries management. I think taking advantage of those kinds of efforts and say, pick us, pick us where there is not already resources lined up is something we need to keep in mind.

MR. BOSTON: Luiz and Marcel kept this very focused on the real needs that the states had, so I think you had these wonderful research folks driving over here, the sky's the limit, and I think we did have that practical. That is the advantage of having Luiz and Marcel in there is they are keeping things on a – but they did realize it would be nice to have, Michelle got that – some

second views, some additional scenario tools that really help you feel a little more comfortable with some of the tough decisions you have to make.

MR. COX: I don't have a question; I was just going to make a comment. It is interesting that you've got this whole ecosystem-based management and how we've set our bait traps, fishermen back in the rivers and streams to catch bait, and we have used juvenile groupers and juvenile snapper species; and at the council table we focus so much on the offshore and the deep-water stuff. You guys are paying attention to that and how that plays into the whole complex.

DR. PONWITH: I am sorry I missed the presentation. I had it triple underscored, but you got ahead of me here and I didn't make it in time. I read through the materials quite closely and am heartened by the investment and the skilled hands that are working on this work. It is also interesting to see the choice of ecopath, ecosim.

I think it represents a really unique opportunity to do some comparisons, because you mentioned the IEA effort seems to be finding its center of gravity right now in the Gulf of Mexico. It was my greatest hope that we would be in very good shape to expand. At this stage in the game my greatest hope has shifted to a more realistic hope that we don't contract in the one place we are working within the southeast, little r, region.

But that does represent a unique opportunity, because the IEA effort there has been operating using Atlantis. It does in my mind represents an opportunity to kind of look at co-evolution. What do we gain by taking these different modeling approaches with sort of some of the same end goals, and who gets there first?

I think that would be an interesting compare/contrast and actually generate some interesting papers. I am also quite keen to answer the question when is NMFS going to plug into this; because we're spread paper thin and I don't being a shoe on the table, because we're constantly struggling with bandwidth; and we're certainly not looking for brand new things we should be doing.

But the fact of the matter is this is a direction we need to be going. To whatever level we can get, some of the ecosystems or habitat or pop dy folks engaged in this would be really beneficial. I think that these tools will help us to generate some interesting material to help us make more comprehensive decisions in light of a broader range of understanding going into the future as opposed to – you know, basically help us grow beyond our stock-by-stock approach.

MR. HAYMANS: I'll just say, and perhaps to overstate the obvious, I am excited to see some new tools and perhaps some useful methods to move forward; but at the same time we can't lose sight of the fact that we need data to drive them, real data that the fishermen and our affected public are going to view as credible.

We can create all the models in the world; but if the fishermen don't believe what is going into them, what good is it? Let's don't lose sight of the fact that we need information to feed them. Any other questions for Brett? Okay, thank you very much, Brett, for coming down. Thank you, Pat. Next we have the Oculina presentation. Roger, can we do that in 25 minutes?

MR. PUGLIESE: Yes, I think so.

MR. HAYMANS: Okay let's move forward.

MR. PUGLIESE: Okay, what I would like to identify is the number of attachments. Number one; the overview has essentially the summary of the two parts of what we're going to be discussing now and a follow-up from direction from council that really led back all the way to December on reevaluation of rock shrimp information relative to the northern extension and very specifically the eastern boundary of the northern extension; both the analysis of VMS as well as requests for being able to get as refined information on use patterns in the area from which to understand what that focus is and what the areas are.

In addition to the overview, we have Attachment 6 and 7, which are a snapshot of the chart that shows the area of consideration along the eastern boundary of the northern extension and then a table that does show the information on VMS that is put into context of various activities and the actual use within the area over time.

As I indicated, the image chart that I had created presents the latest information on the VMS analysis. What I highlight in the overview is while greater fishing east of the fishing points during 2003 to 2014 is like 2.2 percent points during 2013 and 8.5 percent during 2014; the fishing points occurring at the edge totaled 126 for 2013 and 125 for 2014.

The percentage increase in 2014 primarily due to the increased number of rock shrimp points; essentially there was less impact. I think Chip will get into more detail on the actual activity. Let me go to the chart itself.

MR. HARTIG: Roger, before you get too far. I am not on the committee, but is it your intent to look at each of these attachments and show what you've done to the council?

MR. PUGLIESE: Yes, I am just going to go directly into the chart – if that is what we're going to look at?

MR. HARTIG: Yes, I would like to see Attachment 6 and Attachment 7, which are the two charts that you've done. I think 7 is a chart; I can't remember. I would just like to have an explanation of the chart to me, please.

MR. PUGLIESE: That is exactly where we were headed. I just went quickly in there and I want to go directly to the image, because I've got the tables, et cetera, included here. What we have here is there was a request to update the VMS information all the way through 2014 so we had the complete information there.

In order to do this, what we have is the northern extension; and then at the last iteration there was discussion about shifting. The council had modified both the eastern and western boundary a couple times to address industry concerns; and then at the last stage there was an additional request on the eastern bound.

Before when we did the analysis, we kind of looked at the entire area without kind of focusing directly on here. What I did is I went back in and looked at those points very specifically along this eastern edge and highlighted that area in comparison to the overall. What you are seeing is a



table that I created that show the rock shrimp fishery total points that were identified – these are VMS points that are collected every 30 minutes – and then rock shrimp fishing points.

What those are is where the vessels are moving between two and four knots, which were provided by industry in the past as being a characterization of actual fishing effort. Then it is the points in that eastern edge of the Oculina HAPC and then the percent of fishing points within that area.

If you go all the way down to this column here, what you see are the percent of rock shrimp fishing points in that eastern edge. What I did is I looked at the entire timeframe between 2003 and 2007; and at that point it was showing 2 percent of those points existed within that area. Between 2008 and 2014 it was 1.39 percent; and the whole total between 2003 and 2014 was 1.76 percent.

In 2013 not much different than previous periods was 2.2 percent. However, in 2014 there was at least in a percentage numbers changed about 8.5 percent; however, the overall effort had fallen off inshore while the offshore points really didn't change the overall effort inshore, which made that number go up.

In the amendment itself it actually showed the impacts or the amount of fishing that was occurring within those areas between those same time periods. Now what you've got to remember is those were for the entire northern extension, so it included areas that even in this consideration I would assume the council would not have wanted to reopen the center of the northern extension.

When you see a difference there; that is some of the difference that you are seeing is those areas remove that like additional 2 percent or so of fishing directly in the center or around the core part of the Oculina Extension. It was trying to take it one step further and really focus what this issue has been and what that really looks like in context.

One of the things I will note is that a lot of the comments that were made about the expansion were focused at the time we were still deliberating or finalizing this and that was really at the end of 2012 and into 2013. From looking at some of these numbers, if you really look at the 2013 point, we were still at like 2 percent was within this edge area.

Now, again what some of the significance on the other side of this, in terms of just use patterns and fishing activities, is if you remember there was very significant discussion about the importance of that edge right along the edge of the pinnacles to many of the juvenile deep-water species and their occurrence within some of those areas.

The importance I think was highlighted in some of the work and occurrence where John Reed had identified that in some of the previously compiled reviews of that type of habitat. I think it has been recorded in the record previously about that.

Also, there were comments about some of the fishing operations and how they actually would come up and go close to the pinnacle systems to be able to fish right up to the bases. That was the driving discussion we had on focusing on what the implications are, and what the area and

what VMS updated and focus shows. Are there any specific questions to what this is or clarifications on what I've put together?

DR. DUVAL: Just one quick question to make sure I understand this. The column on this graph that says total VMS points; that is any VMS point from any fishery in this particular region so it could include VMS from HMS-permitted vessels?

MR. PUGLIESE: No. What these are is vessels holding the rock shrimp endorsements, the two different rock shrimp endorsements. It takes it one step further, because we have had multiple reviews of this information. When we first looked at it, there was concern that, hey, it was catching – because VMS is on all the time so it was catching the penaeid fishery.

What we did is we focused that area down. This is actually a clip down to where the fishery operates or transits in and it does not include any of those inshore areas. It really is focusing; it is cutting out both the deep-water royal red fishery, as well as the inshore penaeid fishery, and really is focusing on the corridor along the northern extension all the way through.

It is very specifically on operations that would be assumed to be rock shrimp. If you are going two to four knots within this and are holding those permits, it would assume you would be rock shrimp fishing within those areas.

DR. DUVAL: Right; I just wanted to clarify because you have total VMS points, total rock shrimp points and then rock shrimp fishing points. I just wanted to make sure I understood what total VMS points was referring to.

MR. PUGLIESE: Yes, total VMS points – let me reverse it. The rock shrimp fishery is exactly what I just mentioned. That is the fishery points. Total VMS points does include any of the VMS points that were captured within that area, so you are correct; that is right. That is the focus is when you say fishery, it is the two to four knots within that compressed boundary.

MR. PHILLIPS: Roger, I see the number of fishing points has dropped way down, but what did the production do? Did it drop percentage-wise the same?

MR. PUGLIESE: I'll let Chip get into actually what – because originally we were trying to get tow by tow that we could connect these and Chip went as far as he could with some of this. I think it does at least capture in context some of that discussion we had previously; so I think the transition.

What I was focusing purely on was what we were identifying as vessels that potentially could be fishing; because that is like the bound of what we know for that area using VMS. We took it one step further. This is a good transition point to give it to Chip to go as far as we could. We tried to get it down to individual tow information and industry could not provide individual tow information for that area, so Chip did exactly what we could with this.

MR. COLLIER: Attachment 7 is kind of a write-up of the information we had. It is looking at some VMS data as well as some trip ticket data that I worked with Mike Merrifield in order to make sure what is being presented is what they're seeing on the water as well and using their data correctly.

To go over that; like I said, it is Attachment 7. What we did was we separated the trips into shallow water and deep water. It is listed as less than or equal to 200 feet and then greater than 200 feet. In all actuality that depth is greater than 250 feet. There is a clear separation between 200 – there were no trips listed between 200 and 250 feet.

It is a very good separation as far as shallow water and deep water. The landings are in percentages there in Table 1. I did that in order to remove any confidentiality issues. It is basically you have four different sections there. The total landings were separated into shallow water and deep water for 2014 and 2013.

The greater than 200 feet, the depths there, the percentage of the combined catch for 2013 and 2014 was 22 percent each year. The landings from the deep-water area didn't change that much over that time period from 2013 and 2014. What did change were the landings in the shallow water area in 2013 and 2014.

In 2013 it was about 44 percent of that catch came from that shallow water area. That coincides with a drop in number of trips from 42 trips in 2013 in the shallow water area to 13 trips in 2014. There was considerable less effort in that shallow water area. It seems like that increase in percentage was definitely due to a drop in the number of trips in the shallow-water area.

It is not people shifting from shallow water to deep water, because the number of trips didn't change and the number of vessels didn't change in that deep water either. The fishermen had requested that we look at the overall composition and not just the rock shrimp catch composition. That is presented as Figure 1 in that table. A lot of the landed catch is rock shrimp.

In the shallow-water area 86 percent of the catch is rock shrimp, but there is also bycatch of very economically important species such as brown shrimp and squid. In the deep-water area, this is where fishermen might be targeting rock shrimp, and then they might just switch to go and catch royal red shrimp.

Even though it says trips in greater than 250 feet of water or 200 feet of water; and that is 68 or 69 percent of the catch was rock shrimp and then another 27 percent was royal red. Royal red is not really a bycatch in the rock shrimp fishery. There might be a little bit of bycatch, but it is definitely not 27 percent.

That is indicating that some of the guys in that deeper area; they will actually split trips. They go from the deep-water area to even deeper water and target royal red shrimp. Not all the effort that is occurring in that deep-water effort – and when we try to attribute this, not all that effort is going just towards the rock shrimp fishery. Some of the effort is going towards the royal red shrimp fishery.

We've got to be careful. When I'm looking at some of the trip ticket analysis; that information is considered because all we have is total effort on a trip. We don't have if a fisherman was out royal red shrimp fishing and rock shrimp fishing, we can't separate that trip and the number of days they did both activities.

We only have the total activity that they were out. That is some of the information we were running into. Going back into some of Roger's data, we talked to the fishermen and tried to get

effort information. The fishermen generally do three tows per night and each tow is about three hours. We can look at the number of ping rates. If you get a ping every half hour, you should have a maximum of 18 pings per night is generally what a fisherman would have.

That gives you some context for how many pings you expect to see. Going beyond that, the deep-water trips averaged about 16 days. This was a little bit longer than what the guys in the shallow-water area did. They did around 12 to 13 days, so they are making longer trips when they go to the deeper water, which makes sense.

In 2013 there were seven vessels that had pings in the area that is going to be closed in Coral Amendment 8. In 2014 there were five vessels. The vessels that were detected in the area; they were either detected on one day or 14 days. There was a range in there. Five of the vessels had less than five pings over the two-year time period; and then three of the vessels had 30 to 80 pings in that area over the two years.

Then looking at the number of pings per day, what we did here was if a vessel was in the area on a given day we used that in the analysis. There are no zeros in that. That averaged to 3.3 pings per day with a maximum for a vessel of 6.7 pings per day. There was one vessel that had I guess 16 points with the maximum that we saw in that area on a day.

They were likely doing their entire tow in that area. Once again, that 3.3 pings per day; that is actually biased a little bit high, because all we're doing is looking at the positive trips. If you looked at the total effort that a fisherman went out, so the number of days that they have reported on a trip ticket; we took that information and then divided it.

We only used the fishermen that were in the deep-water area to begin with and divided their total number of effort, the total number of day effort and divided that by the number of pings, and it was 0.5 pings per day. There is a pretty big discrepancy in the number of pings per day, 0.5 to 4.6.

But if you were to translate that into minutes; that is going to be 12 to 138 minutes per day is what that averages out to. If you have any more questions, I will be glad to try to answer them. Mike Merrifield is here as well if we have additional questions. He was going to try to get some tow-level information, but I am not sure. Did we get tow level information?

MR. BOWEN: I am not on your committee, so thanks for letting me ask this question. Chip, when you referred to Table 1 and we're looking at the percentages in less than 200 feet and percentages in greater than 200 feet; I'm coming up with 57 percent and 44 percent. Where are the other catches?

MR. COLLIER: You combine those all together and that comes up to; it is 101 percent. It is due to rounding that it gets to that 101.

MR. BROWN: What was the separation distance there between where they were towing for the rock shrimp and the royal reds; was there a long distance or was that relatively close together?

MR. COLLIER: It is pretty long distance and there is a very big difference in depth. If I would try to narrow it down, there were definitely some royal red trips that had catches of rock shrimp,

and there were some rock shrimp trips that had catches of royal red. It seems like if they weren't catching a bunch of royal red, they might have gone in and caught rock shrimp. All the effort for that trip would have said that they were on a rock shrimp trip. The trip ticket data is really difficult to use for this type of analysis, because they could be shifting between fisheries, but we don't know how many days were spent on a certain fishery.

MR. BROWN: The pings that you were referencing; did they have any benefit to identify what the trip was or was it just giving you a general idea of the area?

MR. COLLIER: We couldn't correlate the VMS data with the actual landings' data. The identifiers that we have right now; we weren't capable of doing that. We had requested some information from NMFS to try to get at that level of information, but we don't have that together.

MR. PHILLIPS: This is pretty interesting, and I see that you've obviously managed to break out points or pings under 200 feet/over 200 feet. I am a little bit curious why there wasn't another line out there at 800 feet or 700 feet or something; somewhere between where they stop royal reds and where they start rock shrimp, which might have given us a little better picture of who was working where. Was that just not possible?

MR. COLLIER: The problem comes in at the trip ticket data; and that just gives you total effort on a trip. When I combined these different datasets; that is the unfortunate part of the different datasets is with the VMS data we're definitely able to detect or predict if they are going to be going for royal red compared to rock shrimp; but with the trip ticket and the landings' data we're not able to get that information. We have to lump it all together at the trip ticket level. That is why we really want to get that total level information. Then we would be able to get at that question.

MR. CONKLIN: What is the depth on the western side and the eastern side of the new area that is up for a proposal? Does it start at 150 feet and go over 200? What is the depth range on that small area?

MR. PUGLIESE: I think when you're looking at that 200, inshore of that 200 is really what that inside boundary of the inshore area of the HAPC extension; you get the 90 meters plus. The original proposal was 100 meters; and it shifted almost into 90 meters is where I think we are now with the way that edge just kinds of fluctuates around that point on the outside. We're looking at about a 50 foot or 100 foot difference between that and the other line.

MR. HAYMANS: I want to take a quick second to jump ahead into other business and ask a question on the update of Coral 8; is that okay, Roger? Rick, can you give us an update on Coral 8?

MR. DeVICTOR: Yes; the Coral 8 package is under review in the region, the final rule package right now.

MR. HAYMANS: It has been under review for a while then; hasn't it?

MR. DeVICTOR: Yes; the proposed rule published July 2014, I believe, or that is when the comment period ended.

MS. SMIT-BRUNELLO: Just to put a little more detail, it was approved in August. There was some delay – and I think we’ve talked about that at past meetings – in working with the Office of Law Enforcement. We figured out that the fishermen would not need to buy new VMS units. That took some back and forth for a while. Then it was held up a little bit in our office, my office really, because of workload issues. We expect that it should be going to headquarters soon; the final rule package.

MR. HAYMANS: Maybe by the next meeting it will be final?

MS. SMIT-BRUNELLO: Yes; that is the hope, and I think that is a very realistic expectation.

MR. BOWEN: Again, I’m not on your committee. Chip, I guess one final question I have for you; without VMS on these vessels, would the data that you compiled be possible; and I guess do you see that VMS as a benefit?

MR. COLLIER: I definitely think VMS is a benefit. I think we’re just starting to try to do analyses on this in the South Atlantic. We don’t have very many fisheries that have VMS on them; and so we’re not all that familiar with doing analysis with VMS and how to correlate with trip ticket landings and everything like that. I think it is a benefit. Any time we can get very specific-level data and we’re trying to deal with managed areas, I think VMS there is a benefit to it.

MR. HAYMANS: We are at our appointed lunch break, but we are so near finishing I hope. We’ve beat this one quite a while. We’ve got an awful lot of staff time wrapped up into trying to look at 2014. I will restate my opinion, which is let’s stick with Coral 8 where it is. We’ve put an awful lot of work into Coral 8; and it is only after it was approved did we hear anything about 2014 VMS points. Unless there is an absolutely strong opinion here to adjust that in any way in a future amendment, I would like to move forward.

MS. McCAWLEY: I just want to say that I am going to say the same thing I said at the last meeting; that if we’re going to consider new areas for golden crab, I think we need to keep considering these areas for the rock shrimp. I feel the same way about both areas.

MR. PHILLIPS: I agree with Jessica. They’ve done a lot of work and it is really interesting. I am just afraid that as these fisheries move that we just don’t know how much it is going to impact the rock shrimp fishery in the future. We’ve got a little bit of a handle on what it has affected it in the past; and we’ve heard that that bottom on the very southern end has got some grass or slime. They don’t fish that; it is not fishable now.

I’m concerned that we might be making it a lot harder for those guys to produce the product than is necessary. I’m like Jessica; I don’t want to just take this totally off the radar. Maybe if we have an amendment for new areas, we put this and golden crab in a common amendment and look at it there.

MR. HAYMANS: Well, I don’t think it is going to come off the radar. I don’t think Mike would allow it to come off the radar. Chip, is there any additional work that has to be done or things that are in your very near future with regard to rock shrimp?

MR. COLLIER: It is really up to you guys on what you would like to see. I know there was some discussion at the last Shrimp AP meeting, which Mike is going to be going over that. We potentially would be getting into some new discussions for the rock shrimp fishery.

MR. HAYMANS: All right, seeing no other comments; Roger, can you do experimental closure in just a couple minutes?

MR. PUGLIESE: Chip is going to take care of that.

MR. COLLIER: Okay, the Experimental Closed Area Draft Evaluation Plan; this is a pretty long document. I didn't really put together a PowerPoint presentation or anything like that for it; but I would like to say thank you to the evaluation team. They put a lot of effort into this, had several meetings in order to discuss it, and did a great job putting it all together.

They made it really easy as I stepped in taking over for Anna to finish this project up. What the team was tasked with doing was reviewing the overall Oculina Plan and the objectives that are in it and to see what progress has been made at achieving some of the objectives in the plan and then also evaluate the regulation, size and the configuration of Oculina.

Then finally there was a request by the council for the Oculina Team to evaluate a consideration for a shrimp access area in the Oculina Area that came from the Shrimp Advisory Team back in 2012. Included in the report is an appendix that has their summary statement. The report includes three different breakout groups; the Information and Education, the Law Enforcement Group, and the Research Monitoring.

There has been considerable progress in meeting all the objectives in the evaluation plan although there is always need for more. This is definitely not a finalized product or project. We always need to go back in and evaluate these areas to make sure that they are functioning to meet their goals.

The goal of the Oculina Experimental Closed Area is to increase protection for snapper grouper species, to allow for spawning in that area, and some of these deep-water species to increase in abundance, and also protect some of the spawning stock for gag and scamp. The Information and Education Section got very positive reviews. They've met 13 of their 18 objectives.

Their main goal was to increase awareness and understanding of the Oculina to the fishermen, citizens, and visitors of the Eastern Florida and U.S. public. To reach this goal, they had four objectives. It was to assist in the development of Oculina Experimental Closed Area Plan and review, and they've definitely done that.

They developed a focused campaign targeting recreational and commercial fishermen; they've definitely done that as well. Coordinate a broader media campaign with partners in Central Florida, and they've definitely done that. They've actually been on national news as well as have local pamphlets out and several different organizations working with them.

One thing that should be mentioned that came out of the 2015 review was to try to get information put in Florida's regulation guides. In 2015 there is a half-page blurb in the Recreational Fishing Guide for Florida. We would like to thank the state of Florida for including

that in their brochure. The Information and Outreach section is also changing over from a lot of their past research and going a lot into the evaluation stage and seeing how some of these past objectives have been met and the successful criteria of repeating this project and trying to improve on for future projects.

For Law Enforcement; there was a little bit of concern with law enforcement and compliance in the area. FWC has actually – in 2014 they reconfigured some of their assets in order to make it more efficient and easier to get out to the Oculina Experimental Closed Area. That seems to be very beneficial.

Florida seems to be very happy with it, and they definitely had some reports of going out there and patrolling the area. In the Research and Monitoring, they continue to publish papers from this area. Since 2007 there has been 15 articles published; and since 1996 there has been 46 articles published.

There is a lot of scientific information coming from the Oculina Area. It is not just sitting out there being idle; people are working in the area doing research. Some of the more significant research that has occurred since 2007; there has been a Larval Dispersal Project that was done, looking to see if larvae that were spawned in the area were actually able to be recruited into the South Atlantic, and they did find that.

They compared species assemblage inside and outside of the Experimental Closed Area. They've also been doing mapping of the Experimental Closed Area as well as description of the coral reef habitat in that area. Going on to some ongoing and some completed project; as we said, FWC has included information in their regulation guides.

We're developing a PowerPoint presentation to put on the website so people can look into Oculina and have kind of a video and some other language to go along with it. We're going to be contacting GPS manufacturers to get all MPAs and not just the Oculina Experimental Closed Area, to get those put on digital charts.

There is continued monitoring the number of fish in the Oculina Experimental Closed Area. Then finally there is going to be the mapping of the remaining portion of the Oculina Experimental Closed Area. This has been a task that has been requested since we've basically had the Oculina Experimental Closed Area started.

The final mapping of this is going to be completed by 2018. With that, I think that is an important consideration. It will be completed in 2018 and all the papers will likely be published soon after. Then maybe in 2020 is when another evaluation of this area occurs to make sure it is meeting the goals of what the South Atlantic had designed it for and if other regulations and configurations need to be changed at that point.

Now switching over to the Shrimp AP, their request for the access area, I believe that is Appendix E. The group recommended – overall their response was to keep the area closed. They were concerned with the potential overlap of the access area with the coral distribution. There was also a need to have a buffer between coral area and also shrimping areas to prevent potential incursions. Coral are sensitive to re-suspended sediments; and keeping trawls away from the coral areas they felt was very important.



There is potential for high bycatch for previously closed area and they didn't want to see that level of bycatch. There would also be an increase in their regular boundaries for patrolling and also the number of boundaries for patrolling. For all these reasons, the group was against opening this area at this time and recommend once the area is mapped maybe consider it at that point.

The reason I am here today is to get comments from the overall committee on the format of the document and whether or not there is any comments for the document. The document will be presented to the Snapper Grouper Committee in September as a finalized document; and that way it will be reviewed by the committee that actually formed the Oculina Experimental Closed Area. The Habitat Ecosystem Committee definitely should have a lot of comments on the overall project. We are interested in what they might have for us.

MR. HAYMANS: Any questions, comments, discussion points, thoughts on the overall document?

MR. HARTIG: It is a daunting document; there is a lot of information in there. Like you said, you wanted to thank the team, and I would as well for their great work that they've done. This is the second time they've done this. I was a member of the first time. Unfortunately, I couldn't participate in this second time, but they've done a lot of good work.

It was interesting to see that reading this gave me a little more heartened opinion of the research that is being done, the number of papers and things of that nature. Seeing that helped me to have a little bit better feeling about what we're actually doing within that area. That was good, because rarely do you see it all put together in one spot; so that is great.

I don't have any overarching concerns about changing the document. It is a lot of stuff to put together. However, you feel it is best put together is fine with me, and I had no problem with the document. I would say – and I have an e-mail that I was going to send to them that I never did; but there are some environmental changes happening within that area and the same within the area that I fish, which is pretty close to that. That is a concern.

The shrimp fishery has also echoed those concerns. Some way that we get some kind of instrumentation to document those changes that are happening within that area would be I think paramount to see the changes that are occurring. The other thing I would add is that there is some anecdotal information that is coming from me and fishermen in our area.

We continue to see these very large gag groupers outside of that area. These cold-water intrusions push the animals out of the HAPC from time to time. They push them all the way south into our area and we'll have access to the size animals that frankly I have never caught before.

We had six fish last week, 40-pound average fish, one was 46 pounds. Those are big, big gag groupers. They are getting up to the maximum size that they attain. Something is working in that area as far as getting gag groupers back to the maximum size, as far as the males are concerned, the black bellies. Most of those animals are black bellies. But you'll even see some big females at that size, which means that some of the males are even larger than that. There is some interesting interplay and certainly we need to document those changes.

MR. HAYMANS: It was heartening to see the number of papers of work that came out of that area, and I can only hope that any time we close an area to fishing for experimental purposes; that we see that level of report coming out of them. I am thinking of Gray's Reef in particular. I would love to see it done.

MR. PUGLIESE: Just a last note connected directly to Ben's comment; I think the engagement of our partners with the Ocean Observing Systems are not only setting the stage for what types of instrumentation may be available and opportunities to do that but also engage and use some of the existing modeling information to document some of the change and set the stage for the future. I think we're poised to be able to at least get the right people to get the information to advance on any of these areas.

MR. HAYMANS: Any additional comment, questions, discussions?

MR. COLLIER: I think it was a really good thing that you guys did, making these evaluation reports required and giving a timeframe for that. I think that really reinvigorates the scientists, gets everyone back involved, and puts these areas back in the forefront and makes sure that we're doing the research that we need to do to manage these areas and these fish properly.

MS. SMIT-BRUNELLO: I have a question just for clarification. On the updated rock shrimp catch information that Chip presented, I wasn't quite sure what the final decision was with what you are going to do with that information.

MR. HAYMANS: I thought I heard we're going to maybe discuss it during the Shrimp Committee, but that there is no desire on behalf of this committee to move forward with any changes or updates to any new amendments from this committee. Anyone else? As I was going to say, we are on island time, Mr. Chairman, so my apologies for the extra 18 minutes, but this committee is adjourned.

(Whereupon, the meeting was adjourned at 12:17 o'clock p.m., June 8, 2015.)

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Ben Hartig, Vice-Chair  
Chester Brewer  
Jack Cox  
Roy Crabtree  
Jessica McCawley  
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Anna Beckwith, Acting Chair  
Zack Bowen  
Chester Brewer  
Mark Brown  
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*(Continued)*

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**Admin. Secretary /Travel Coordinator**

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**South Atlantic Fishery Management Council -  
June 2015 Council Meeting  
Key West, FL**

**Date: Monday, June 8, 2015      Committee: Habitat Protection & Environmental Protection**

**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 above.*

Name:	Mailing Address/E-mail: <i>(Check box if information is on file)</i>	How do you participate in South Atlantic fisheries? <i>(Check all that apply)</i>	
James Morley	<input checked="" type="checkbox"/> On File	Commercial <input type="checkbox"/>	NGO <input type="checkbox"/>
		Recreational <input type="checkbox"/>	Govt. <input type="checkbox"/>
		Charter/For-hire <input type="checkbox"/>	Other <i>Describe</i>
FRANK HELIES	<input checked="" type="checkbox"/> On File  GSAFF	Commercial <input type="checkbox"/>	NGO <input checked="" type="checkbox"/>
		Recreational <input type="checkbox"/>	Govt. <input type="checkbox"/>
		Charter/For-hire <input type="checkbox"/>	Other <i>Describe</i>
Justin Grubich	<input checked="" type="checkbox"/> On File	Commercial <input type="checkbox"/>	NGO <input type="checkbox"/>
		Recreational <input type="checkbox"/>	Govt. <input type="checkbox"/>
		Charter/For-hire <input type="checkbox"/>	Other <i>Describe</i>
Lora Clarke	<input checked="" type="checkbox"/> On File	Commercial <input type="checkbox"/>	NGO <input type="checkbox"/>
		Recreational <input type="checkbox"/>	Govt. <input type="checkbox"/>
		Charter/For-hire <input type="checkbox"/>	Other <i>Describe</i>
Leda Dummire	<input checked="" type="checkbox"/> On File	Commercial <input type="checkbox"/>	NGO <input type="checkbox"/>
		Recreational <input type="checkbox"/>	Govt. <input type="checkbox"/>
		Charter/For-hire <input type="checkbox"/>	Other <i>Describe</i>
John O'Malley	<input type="checkbox"/> On File  NOAA OLE	Commercial <input type="checkbox"/>	NGO <input type="checkbox"/>
		Recreational <input type="checkbox"/>	Govt. <input type="checkbox"/>
		Charter/For-hire <input type="checkbox"/>	Other <i>Describe</i>

**South Atlantic Fishery Management Council  
4055 Faber Place Drive, Suit 201  
Charleston, SC 29405**



**South Atlantic Fishery Management Council –  
June 2015 Council Meeting  
Key West, FL**

**Date: Monday, June 8, 2015**

**Committee: Habitat Protection & Environmental Protection**

**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 above.*

Name:	Mailing Address/E-mail: <i>(Check box if information is on file)</i>	How do you participate in South Atlantic fisheries? <i>(Check all that apply)</i>	
		Commercial <input type="checkbox"/>	NGO <input type="checkbox"/>
<i>[Signature]</i>	<input type="checkbox"/> On File	Recreational <input type="checkbox"/>	Govt. <input type="checkbox"/>
		Charter/For-hire <input type="checkbox"/>	Other _____ <i>Describe</i>
Holly Binns	<input checked="" type="checkbox"/> On File	Commercial <input type="checkbox"/>	NGO <input checked="" type="checkbox"/>
		Recreational <input type="checkbox"/>	Govt. <input type="checkbox"/>
		Charter/For-hire <input type="checkbox"/>	Other _____ <i>Describe</i>
DICK BRAME	<input checked="" type="checkbox"/> On File	Commercial <input type="checkbox"/>	NGO <input type="checkbox"/>
		Recreational <input type="checkbox"/>	Govt. <input type="checkbox"/>
		Charter/For-hire <input type="checkbox"/>	Other _____ <i>Describe</i>
<i>[Signature]</i>	<input checked="" type="checkbox"/> On File	Commercial <input type="checkbox"/>	NGO <input type="checkbox"/>
		Recreational <input type="checkbox"/>	Govt. <input type="checkbox"/>
		Charter/For-hire <input type="checkbox"/>	Other _____ <i>Describe</i>
Adam Bailey	<input type="checkbox"/> On File NMFS SERO	Commercial <input type="checkbox"/>	NGO <input type="checkbox"/>
		Recreational <input type="checkbox"/>	Govt. <input checked="" type="checkbox"/>
		Charter/For-hire <input type="checkbox"/>	Other _____ <i>Describe</i>
Charlotte Delorey	<input type="checkbox"/> On File Charlotte.S.Delorey@USCG.mil	Commercial <input type="checkbox"/>	NGO <input type="checkbox"/>
		Recreational <input type="checkbox"/>	Govt. <input checked="" type="checkbox"/>
		Charter/For-hire <input type="checkbox"/>	Other _____ <i>Describe</i>

**South Atlantic Fishery Management Council  
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# Registration Report

# GoToWebinar

Generated

Jun 17, 2015 9:39 AM EDT

## General Information

Webinar Name  
SAFMC Council Meeting - Day 1 of 5 (Monday)  
Scheduled Start Date  
Jun 8, 2015  
Scheduled Start Time  
8:30 AM EDT  
Scheduled Duration (minutes)

Webinar ID  
119-747-595  
Registered

Opened Invitation

33

56

Clicked Registration Link

540

63

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