SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

PROTECTED RESOURCES COMMITTEE

Charleston Marriott Hotel
Charleston, SC

September 19, 2013

SUMMARY MINUTES

Protected Resources Committee:

David Cupka, Chair
Dr. Wilson Laney, Vice-Chair
Anna Beckwith
Dr. Michelle Duval
John Jolley
Charlie Phillips

Council Members:

Ben Hartig
Mel Bell
Chris Conklin
Jack Cox
Dr. Roy Crabtree
Lt. Morgan Fowler
Doug Haymans
Zack Bowen*
Jessica McCawley

Council Staff:

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

Observers/Participants:

Monica Smit-Brunello
Dr. Jack McGovern
Dr. Bonnie Ponwith
Doug Boyd
Phil Steele
Pres Pate
Anik Clemens
Robert Boyles
Dr. Marcel Reichart
Lt. Michael Mastrianni
Jessica Powell
Barb Zoodsma
Jennifer Lee

Additional Observers Attached

*Appointed but non-voting or sworn-in until October 25, 2013

The Protected Resources Committee of the South Atlantic Fishery Management Council convened in the Blue Topaz Room of the Charleston Marriott Hotel, Charleston, South Carolina, September 19, 2013, and was called to order at 9:10 o'clock a.m. by Chairman David Cupka.

MR. CUPKA: We want to get started on our Protected Resources Committee Meeting. The first order of business will be approval of the agenda. Are there any changes to the agenda or any additions? Seeing none; then our agenda is approved. Next will be approval of the June 2013 Protected Resources Committee Meeting Minutes. Are there any corrections or additions to the minutes? Seeing none; then our minutes are approved.

Our next item is an update on ongoing consultations. You will recall at our last council meeting we passed a motion that stated that the council will receive status updates from Protected Resources Division staff at each council meeting while there are ongoing formal consultations. There is currently a formal consultation underway with our Coastal Migratory Pelagic Fisheries.

This was triggered last year by the listing of two distinct population segments, the Carolina and the South Atlantic population segments of Atlantic sturgeon that were listed as endangered under the Endangered Species Act. Jennifer Lee is going to brief us this morning about this ongoing consultation. We're going to try and do this over the phone. Jennifer is back at the office at Protected Resources.

MS. LEE: As David said, we have two consultations underway. We have our Coastal Migratory Pelagic Resources Consultation. At the last meeting I gave you some information related to what we had for bycatch data on which to base potential effects. I went over the fact there were only two Atlantic sturgeon captures in the mackerel fishery. They were both in 2011. Both were released alive. That is some of data that we're working with.

The big update from I guess June to now is just that we are actually drafting a biological opinion for staffing purposes. We really haven't made a lot of progress on this consultation, but it is now active in terms of we have someone that is assigned and working on it. By the time your next meeting rolls around, it should be much further along.

But again as David said, it was initiated to deal with Atlantic sturgeon. It does look at the entire fishery; but in terms of effects, we're not looking at least preliminary – my take on it is that we're really not looking at too much of an impact.

The second consultation we're doing is on southeastern shrimp fisheries. If you recall, last year after we did a new biological opinion, the opinion looked at the South Atlantic Shrimp Fisheries, the Gulf of Mexico Shrimp Fisheries and also state fisheries because of TED regulations. I presented on the May 2012 biological opinion and gave you a bunch of information about that consultation we reinitiated back in the end of November of 2012.

The reason why we did that is because of our new observer data and finding that implementing TEDs in the skimmer trawl fisheries was not warranted at that time. As a result, we need to reinitiate consultation. The opinion that we're currently working on looks at the effects of the skimmer trawl fisheries without TEDs, so a status quo fishery.

It is also updating our compliance information that we have on TEDs. Really, the opinion pretty much is – the analysis is pretty much following what was done in the 2012 opinion. The consultation is more or less an update. The biological opinion, we do have a draft and we just initiated a review. That's it for our ongoing consultations right now with respect to your fisheries.

MR. CUPKA: Are there any questions or comments for Jennifer? Seeing none; then we will look forward to an update at our next meeting, Jennifer, and thank you for doing that. That takes us to our next agenda item, which is a presentation on the biology and behavior of right whales to inform black sea bass pot risk. We're fortunate to have with us today Jessica Powell and Barb Zoodsma from the Protected Resources Division staff. I'm going to turn it over to them.

MS. ZOODSMA: I have been hearing a little bit about what you all have been contemplating relative to black sea bass in particular. I tried my best to tailor this presentation to provide you with some information that I think you'll find important and worth contemplating as you move forward particularly with Regulatory Amendment 16 you all have been discussing.

With that, I will move forward; and then at the end if there is time, we can have some questions. Just to go over what I plan to talk about here is just a little bit about population, where the right whales are and the distribution in space and in time. I think both of those are kind of important issues to contemplate.

And then a little bit I'll talk about not only right whale entanglements and the gear that they have been found in but also touch upon a little bit about humpbacks because humpback whales are a protected listed species as well, and those should be thought about particularly in the Mid-Atlantic. I'm sure some of you are well aware this; there aren't very many right whales.

The population is estimated to be at a minimum of roughly around 450 animals. This was in 2009, and you may ask why is there not a more recent count, and this is basically a count. I'll just tell you that there are a lot of researchers out in the field taking photographs of individual right whales, and there are thousands and thousands and thousands of photographs taken each year. It takes that long to go through the photo ID catalog and match all of the animals up.

This is a minimum number from 2009. When you look at that minimum population number, it does seem to growing at an estimated annual rate of about 2.6 percent, so that's good news. Things are happening that are very optimistic and very positive for the population. On the downside it is a very slow growth rate.

Four percent is considered to be healthy for large whales, and this population is below that 4 percent rate. The population is still precariously very, very small, and is frequently exposed to human-induced threats. The population is so small it doesn't take very many mortalities to push it over the edge where the population would static or in decline again to where it is again growing, so it is right on the precipice here.

Then, obviously, it is one of the most critically endangered populations of large whales in the world. Not all calves live to be adults. We've been very fortunate and the right whales are doing

their jobs producing an average of 20 calves in the last several years, but unfortunately not all of them make it to adult. If we have 20 calves, it doesn't mean there are 466 whales in the population because they all need to be recruited into the population and growing.

Annually there are anywhere from zero to four known calf deaths that we are aware of. Some people have estimated that on average there is a calf mortality rate of about three per year. The population on a whole contains a smaller proportion of juveniles than expected, and this may reflect an increased mortality rate for juveniles.

That is kind of an interesting thing and I'm going to touch upon juveniles later on in my talk, but again it is important to remember that there is a smaller proportion of juveniles than what we would expect in the population. Just kind as an aside here, this doesn't really relate to recruitment or the population level, but we estimate there are about 60 reproducing females in the entire population, so 60 animals is not real great.

In summary, the population size remains small. There are low growth rates; that is good news. However, even low levels of human-caused mortality poses a significant obstacle for recovery, and most likely human-induced threats are a primary cause for the species' failure to recover. I alluded this a little earlier, but there are studies like the one that was done by Caswell et al in the 1990's that suggesting preventing the death of adult females per year could be sufficient to reverse a slow population decline that was seen back then.

Again, that just speaks to the fact that it doesn't take many mortalities or preventing a few mortalities to cause this population to swing in one direction or the other. That is the population information. Now let's talk a little bit about habitat. In 1994 NMFS designated critical habitat in a couple of places in the U.S. for North Atlantic Right Whales.

In the southeast here off Florida and Georgia is the only known calving ground, and that was understood at that time in 1994. Today we know that this area is used as a wintering ground by other adults and even a number a juveniles come down for the winter. Now, why they're coming down, we don't know but they are indeed coming down.

The boundaries for these critical habitats that were established in 1994 were based on sightings of right whales. I think down in the southeast the calving area, basically they plotted out where all of the right whales had been seen, put a box around 80 or 90 percent sightings, and that is where the critical habitat boundaries were placed.

The problem with using sightings is that there are a number of biases that come into place. In other words, a lack of sightings does not necessarily equal whale absence. If you're flying, for instance, for right whales, the whales have to be up to be seen. You could fly over the same area, the whales aren't there, you put zero, fly over the same area again, the whales are up breathing, and, whoop, now you have two whales. That is an availability bias that can come in.

The other thing that can come in is perception bias where the observers could be having a bad day. They could be a little sleepy. They could be completely alert and just not see this right

whale. Here you see this right whale and so an observer could miss that right whale. I have to put my glasses because there is actually another right whale right there.

Even these right whales can be 55 feet long and weight 55 tons, they can be extremely difficult to see, and so there is observer error associated with this. Then there is also incomplete coverage where weather can be really bad and just is not suitable for flying aerial surveys. Those are some of the limitations that are associated with sighting information.

Habitat modeling provides a lot of benefits. It allows us to better characterize whale distribution and sightings. We can relate cetacean distribution to environmental variables, and then in turn we can predict where cetacean occurrences are going to be based on those environmental variables.

What that allows us to do, for instance, in the southeast where we've had a lot of aerial survey coverage of the right whale calving area – and the southeast I mean primarily Florida and Georgia, but also we have extended aerial surveys up to off South Carolina – is we can predict cetacean distribution in that study area where we didn't fly all the time, and so that provides us with a much more powerful tool.

Here I'm showing two habitat models that were produced; one by Caroline Good on the left, number one, and you can see where she is predicting calving habitat basically all the way to North Carolina, but you can see where the current designated critical habitat lies, and it is not very representative of what we know now to be right whale habitat.

This is a model that was produced by the Southeast Fisheries Science Center, Lance Garrison, in conjunction with our colleagues at Florida Fish and Wildlife Conservation. Again, you can see the existing critical habitat boundaries placed inside of what we now know is a better representation of calving habitat off South Carolina and Florida.

This is hot off the press, and I was given permission by my colleagues at Florida Fish and Wildlife Conservation to present this. This is another habitat model that was done by Tim Gowan and Joel Ortega Ortiz. They were looking at wintering habitat models for North Atlantic Right Whales in the Southeast U.S., and they found significant predictors; in other words, some variables that would allow us to identify where right whales would be found.

Those predictors include water temperature, which was in the range of 12 to 16 degrees Celsius; water depth in the range of 10 to 20 meters. They found a difference between survey year and primarily that was if it was a cold season or a warm season or what was going on up in the feeding grounds.

Distance to shore; they found right whales were found further away from shore than closer to shore; distance to the 22 degrees Celsius – actually it is the opposite, found closer to than further away – distance to the 22 degrees Celsius sea surface temperature isotherm, the Gulf Stream, and then there was an interaction between summer month and latitude. Basically, what they found was that, you know, what we know, right whales migrate north and south. So when they included this term, it allowed the model to better fit actually what was being seen.

So when they used the model to predict right whale distribution and then went back to a certain year and said, okay, this is what the actual prediction was – or, I'm sorry, the actual distribution of right whales that year, very, very close fit with this model, especially when they included that north/south migration information.

This is actually a little bit more than strictly a habitat model because it also includes this kind of migrational term. What they found – and again I don't have the current critical habitat drawn in here, and I apologize for that, but what you can see is that again what we now know where right whales are using, it extends beyond the existing critical habitat.

Like I mentioned previously, right whales distribute themselves differently in cold versus warm seasons, and that makes sense if you understand that sea surface temperature affects their distribution. In a cold winter they're going to be found further south, but they're also found fairly close to shore. Then during a warm winter they're going to be found a little further north and a little further actually from shore.

Those are I think real interesting and good information, and this has just been submitted for publication, so this is, like I said, hot off the presses. Now, I mentioned that these models; one thing that you need to be very careful about doing is trying to extend a model beyond an area for which it was built for or developed for.

We flew aerial surveys, and those models were built on using data from our aerial surveys that were flown off Florida, Georgia, and South Carolina. It gets a little more dangerous extending that model up into North Carolina because there may be other variables that are affecting the influence of right whales in that area.

There is one common feature between the southeast the northeast wintering area of right whales in that the temperature down in the southeast during the winter is very similar to the temperature of habitat used by right whales in the northeast, and so we can deduce some things off North Carolina looking at sea surface temperature.

So, if you keep in mind that right whales were preferring that temperature range of 13 to 16 degrees, so kind of in the light blue, short of the green and definitely not in the yellow. Up off North Carolina you can see that this is a pretty good – there is a very good chance that this is migratory habitat here.

They may occasionally go out in the Gulf Stream; we have seen that; but primarily for thermal regulation purposes they're going to stay in this blue water. Again, I want to say that I think it is worth mentioning that even though sighting information in this area is lacking, that is primarily from sampling bias.

We know that every right whale that is observed down in the southeast – and there can sometimes more than 200 right whale in the southeast in the winter – we know each and every one of them is migrating through this area. The reason why we don't have better data for that area is primarily for sampling bias purposes.

All right, now the temporal extent, what time of year do we see them down in the southeast? For the longest time we thought – for lack of a better way of describing, we thought there was one major southward migration or stampede in the fall where right whales came trucking down to the southeast, stayed for the winter and then in the spring another right whale basically stampede migration up to the northeast. We've found that is not the case.

Looking at this data, this is a discovery curve for aerial surveys down in Southeast U.S. What it is telling you is – remember I mentioned each individual right whale is identifiable. What this is showing us through the calving season when new right whales are detected; so if there was one major stampede, you would expect this curve to sort of go up where we would be finding a lot of right whales at the beginning of the season and then it would just level off.

That has not been the case. 2010 and 2011 came almost closest to that of all the years, but you can see pretty much throughout the year we're finding new right whales all throughout the calving season, suggesting that new whales are arriving throughout the calving season. There appears to even be a mid-season surge here where it kind of levels off and then, boop, we get more whales through early February and maybe as early as late January.

Anyway, the point being we're not seeing just that major influx of whales. At the beginning of the season they all stay here and then they leave again. This pretty much illustrates the same thing only in a numerical way. You see early on in the calving season 6 percent of the different individuals are seen. I'm looking at the year 2005/2006 right now is just the first one there.

So 6 percent of the unique individuals are seen by early December and then it is not until early March where 96 percent – so all through the season more and more animals are migrating in and being seen through these aerial surveys. I want to go back here and point out that already – so this is 15 November. Already a number of right whales are being seen down in the calving area already.

All right, so a summary of what we know about the time when right whales are in the southeast; the discover curves and the duration suggests two waves of adults entering the Southeast U.S.; and again these are the aerial surveys that are flown off Georgia and Florida, but also some off South Carolina.

The earlier arriving adults and calves have long durations. They stay a long time, but then there are animals that come throughout the season. They stay for a shorter duration and moving back north again. New animals are detected throughout the core calving area from early December through mid to late March; so what this means, we know, is off North Carolina whales are present prior to, during and subsequent to what we consider to be the December to March core calving period and in the core calving area.

Obviously, these animals need time to come down and move back up. All right, we talked a little bit about the population, we talked about the habitat, we talked about the timing of where animals are and now let's talk a little bit about entanglements. I mentioned that all right whales are photographed and included in a right whale catalog.

Eighty-three percent of all those right whales that are included in the catalog have scars indicating that they've been entangled at least once. That is 83 percent of the animals. Now, not all of them were seen with gear on them, but they do have scars from being entangled. Sixty percent of all entangled animals have been entangled more than once, so it is not like they're learning and then not doing that again. It is happening multiple times.

Juveniles were entangled at a higher rate than adults. Do you remember me saying earlier that there is a lower than expected number of juveniles in this population? That I find very interesting that juveniles are entangled at a higher rate than adults. Just to note, right whales aren't the only ones that show this. I think dolphins are the same thing; manatees are the same thing.

Those juveniles – well, teenagers tend to get in trouble, we all know that. Then 26 percent of the photographed animals, once they adequately photographed and are included in the catalog, show that they're being entangled on an annual basis. That is a pretty high rate of entanglements, but very few of them are actually being seen. My next slide will kind of get into that.

Johnson et al looked at fishing gear involved in entanglements of right and humpback whales, and they found that pot and gill net fisheries were implicated in 89 percent of all entanglement cases that they examined. When gear type was identified, right whales were found to be entangled in pot gear 71 percent of the time. Pot gear is clearly an entanglement threat to right whales.

Fifty-six percent of entanglements for both species involved the buoy lines, so the line that is going from the trap up to the buoy. Basically, what they found was that any line rising into the water column poses a significant entanglement risk for these two species. I mentioned previously that very few entanglements are actually detected or seen.

This is information from the year 2010, and it is for right whales only. In all of 2010 five new entanglements were seen in right whales. Of these gear was recovered only two times; and of that gear, only one time was the fishery type or the gear identified to trap pot gear, because in the other time is was just a piece of rope that was found entangled on the animal. That happened to be 5/8th inch float rope.

This was 7/16th inch polypro float rope and there were gangions and plastic-coated wire mesh on that animal. You can see not only are there not many entanglements each year that we detect; but when it comes down to it, the gear type is actually very rarely identified. Now, one would say, geepers, there are only entanglements in 2010; what in the world?

Well, the problem with the right whale population is that it is so critically endangered and there are so few individuals, that the Marine Mammal Protection Act dictates that we cannot allow many mortalities or serious injuries as a result of incidental catch in fisheries at all. In fact, the Marine Mammal Protection Act establishes a potential biological removal level, and this is basically defined as the maximum number of animals that can be removed from the stock while allowing that stock to maintain its optimum sustainable population level.

The PBR level – and I don't want to get into this. This is all kind of thick and I really apologize, but the PBR level is the product of the minimum population estimate of the stock – we have 444 in this case – one half the maximum theoretical or estimated net productivity rate of the stock as small population size, so I think that is 0.02, and then a recovery factor – we have a really, really small population, it is highly endangered, they get a 0.1.

So the PBR, the number of right whales that may be incidentally taken in a fishery per year is less than one animal. If we exceed that, we're over the level that the law establishes. Indeed, annual serious injury and mortality for right whales averages about three a year. Incidental fishery entanglement is 1.8 a year, so by law we have to get this number down.

Now, I will say as a biologist that even if the law wasn't holding our feet to the fire, even if the Marine Mammal Protection Act wasn't holding our feet to the fire, it is the right thing to do to recover this species. Okay, rope-breaking strength and diameter in North Atlantic Right Whale entanglement; this is another study that is hot off the presses.

Knowlton et al looked at the breaking strength of line that was removed from entangled right whales, and not surprisingly calves were found to be entangled in line with a lower breaking strength than were the adults. The adults were up there; you can see the breaking strength, and up here was over 5,000. There was one little guy down here with a low breaking strength.

What this suggests is that the larger, stronger animals are able to break free of the line that has a lower breaking strength. These little guys are just pretty much susceptible to even the line with a lower breaking strength. As a result of this study, these authors came up with a few recommendations, and they recommended that the maximum breaking strength of line north of Cape Hatteras be 1,200 pounds and that the maximum breaking strength of line used of Cape Hatteras be 600 pounds.

The difference is because right whale neophyte calves are found in the southeast, and these calves actually grow quite a bit. I think they grow on average about two inches. By the time they leave the southeast, they actually look like little right whales. As opposed to when they're first born, they sort of look like little skinny sea slugs, almost like little dolphins.

Sorry, I don't mean to refer to dolphins as slugs, but they're kind of skinny. Anyways, they're very weak swimmers, and so that's what this 600-pound maximum breaking strength reflects is the presence of those neophytes. They saying once the calves grow and they start migrating north, they will be stronger and more likely to be able to break free of that line.

I'm going wrap this, but there are a number of things to think about as you think about reducing interactions with marine mammals and listed species of marine mammals. The temporal and spatial distribution of gear is an important factor as is the temporal and spatial distribution of whales.

But additionally to that is the gear type with such things as what is the rope breaking strength, what is the weight of the gear? Can the whales lift it and get to the surface of the water and give them a fighting chance to break free? What is the whale behavior in that area? A lot of right

whale entanglements happen to involve the mouths of right whales; so are right whales exhibiting this open-mouth behavior such as feeding in the northeast?

Down here in the southeast we know right whales open their mouths. I don't think they're feeding. I think it is probably thermal regulatory related. What is the whale size or age of the whales in the area that you're interesting in managing and their related strengths? There are other variables to consider as well, but I just wanted to bring those out. David, that's all I have if you want to go into questions.

MR. CUPKA: I think we've got time for a few questions. Are there any questions for Barb related to the biology or behavior? Michelle.

DR. DUVAL: Thanks for that presentation, Barb. I was just curious if you could talk a little bit more about the surveys that you all used. You said that they tended to be focused more on Georgia and northern Florida, and I was just wondering a little bit about the survey design and then you have plans or currently are extending those surveys up more into North Carolina. I know you noted that there was something of a paucity of sighting data in North Carolina.

MS. ZOODSMA: The aerial surveys were born from an effort to mitigate ship collision. I think it was back in the late eighties when it was first discovered as a calving area off Florida and Georgia. There was navy activities going on, coast guard activities, the Army Corps was dredging in the area around the Jacksonville, Brunswick and Fernandina shipping channels.

Aerial surveys were focused in that area because we got those agencies to pay for the surveys. They were flown on a daily basis, and then through the years it evolved to expand into larger areas. We learned right whales were using more and more of that area, and so that's where we primarily were focusing the aerial surveys because we had the obligation to fly for the funding agencies.

We also were interested in monitoring calf production, and that is where we knew the calving area was. We devoted a lot of resources in that area. We then expanded aerial surveys up to South Carolina – David was a part of those – and flew in that area as well because we were starting to get the picture that right whales were stopping short of coming all the way down to Georgia and Florida.

What we found up in South Carolina is where we started getting into some of those sighting biases I talked about. We knew that every right whale that was coming down to Georgia and Florida was going past South Carolina, but the sighting results that we were generating from the surveys wasn't showing that. We actually stopped those aerial surveys.

This year is going to be the first year where we won't be flying those aerial surveys. We're now refocusing our aerial surveys on documenting the unique individuals so we can monitor the population level. We are starting to talk about the Mid-Atlantic, and we're frustrated with our lack of information in that area.

The Southeast Implementation Team is working with the Southeast Regional Office to sort of think out and critically assess what is the way to get a better handle on right whale use of the Mid-Atlantic, and we're in that process right now.

MR. CUPKA: We also think that on our flights, that some of those whales weren't going on down into Florida but were actually staying off South Carolina. They were short-stopping, so to speak, and staying in our area. I think that led to kind of an enlargement of the area –

MS. ZOODSMA: Correct.

MR. CUPKA: – that was considered.

MS. ZOODSMA: Very good point, David; yes, we were learning that some of the animals were stopping short of what we traditionally considered the calving area.

DR. LANEY: Great presentation, Barb – a couple of comments and then a question. The comment is that Lee Fisher, Tim Miller and I observed a right whale breaching off Cape Hatteras in January a number of years ago, so I can vouch for the fact that they do use that corridor very close to shore. This one was really close to shore.

About acoustic surveys; I have talked to Andy Reid and Doug Nowacek at Duke, and they have received funding – this was like a year ago I think – to do pop-up acoustic receiver surveys I presumed in the Mid-Atlantic area. Is that a useful adjunct to the aerial surveys? Can you identify individual whales with the acoustic data? I have one more question, too.

MS. ZOODSMA: Yes, acoustic surveys are a good tool, but they have limitations similar – I don't want to start off knocking them. They're good and I'm glad that Andy and them are doing some work on the Mid-Atlantic. I think we've got to try something there. I believe they're going to be putting buoys out. I don't know exactly when, but I know they're going to be doing that soon.

What we've have been talking about is trying supplement their efforts to get more of a thorough effort out in the Mid-Atlantic. Acoustic surveys, like visual detection surveys, have their limitations as well. The right whales have to talk; they have to vocalize to be detected. We're not entirely sure how vocal right whales are in the Mid-Atlantic, but again I'm glad they're trying.

In the southeast we know, for instance, that right whales – and this will make sense to everybody, I'm sure – right whale mom/calf pairs are not vocalizing a whole lot. If you think of this recent Ocearch Study that was done down in the southeast where they were taking these mega white sharks, you could imagine why the moms and calves wouldn't be vocalizing a whole lot.

DR. LANEY: Right; and the other question I had was in view of those groups that migrate to the southeast, what would be the adaptive benefit of that late-migrating group that comes down late

and then goes back early? Just looking at it, it seems like that's not a very wise energetic expenditure unless there is some really palatable prey that they're trying to find in the southeast.

MS. ZOODSMA: We don't believe they're feeding in the southeast at all; and quite frankly I have no idea why they're coming down there. It's the same thing with the juvenile, why they're coming down. It is like you said, it doesn't make sense. We don't believe they're feeding in the southeast.

They have to feed on densities of prey that are incredibly dense to even have any return from swimming with basically a sea anchor in front of them, and so nobody really understands what is going on. I think a real key is to learn what is going on in these unknown wintering habitats because there could just be something wild going on there where it is causing animals to be displaced from there and go to other places. But, you know, we don't know what that is all about.

MR. JOLLEY: Barb, that was great. Do you use area fishermen, like commercial fishermen, that are on the water a lot for any of your sighting data to help you with this stuff.

MS. ZOODSMA: We definitely encourage sightings from the public. We actually have an 1-800 number that people can call and they can also radio the Coast Guard to report sightings.

MR. JOLLEY: Okay, I think we all know this, but I've got to ask it, anyway; you have evidence, I'm sure, where most of these entanglements take place?

MS. ZOODSMA: Actually, we don't. We have evidence of where we detect the entangled whales. In fact, a number of right whales are detected entangled in the southeast, but I think where they get entangled is another question.

MR. HAYMANS: Barb, good presentation. I wish you had started the public hearing process with this. I think it would have been very informative for the fishermen to hear some of that information. Would you speak just a moment to sort of the harassment policy in MMPA, distances, fishermen not approaching whales, things like that, and then also to the definition of take and how that take fits into the PBR calculation.

MS. ZOODSMA: Your first question was about distances?

MR. HAYMANS: Well, harassment, X number of yards from an animal, because I know that a lot of people get a lot closer than they're supposed to.

MS. ZOODSMA: Right whales, in addition to the distance or the harassment applicable by he MMPA, the ESA regulation of a minimum of a 500-yard approach prohibits people from approaching or remaining within 500 yards of right whales. The definition of "take", I am not a good person to ask that. Do we have law enforcement here?

MS. LEE: The way I'm hearing the meeting, I'm having a little trouble sometimes hearing; so if someone could repeat the question, I can try to answer it.

MS. ZOODSMA: What is the definition of "take" under the MMPA, Jennifer, do you know?

MS. LEE: I guess I should ask if Phil can repeat the question. You're the one that occasionally I'm having trouble hearing.

MR. STEELE: Jenny, they want to know what is the definition of "take" under the MMPA?

MS. LEE: Oh, under the MMPA; I can look that up real fast.

MR. HAYMANS: Well, my question kind of centered my limited knowledge of the bottlenose dolphin take reduction process in that even an entangled animal that was released alive is considered a "take" and therefore is included in the PBR calculations. I was just sort of getting a sense of that with the whales. Even if you have a released animal, it is not kill.

MS. ZOODSMA: I'm going to let Jess handle that.

MS. POWELL: The MMPA is unique in the situation you speak of. There are actually two ways to look at a take. The first one is if an animal is disentangled and considered released alive and there is no evidence of serious injury, that animal is actually not counted against potential biological removal.

However, that animal is still documented in our stock assessment reports as becoming entangled in the gear. That helps us get a full look at what the risk is. The reason for that is because had that disentanglement team not intervened with that animal, that animal technically would have been taken by the fishery. It is still documented. It is not counted against the population, but it is still documented and looked at when we do other aspects of the Marine Mammal Protection Act, including like the list of fisheries and things like that where we look at the level of risk that each fishery poses. Does that help? Okay.

MR. BELL: Two things real quick; one, I was curious about when you talked about the percentage of the animals that have been entangled at least once or twice, and I assume that is based on scars or wounds, and I was curious about is there a pattern to where those mostly occur. Is it on the flukes; is it anywhere or – that's the first question.

The second was more for information. Have you done any work with the application of acoustic tags that could be picked up by an array of sensors? I mention that because we're hopefully about to engage in a project which will set up off of Georgia and South Carolina a system of an array of sensors that will run from about the beach out to 12 miles, which if you had acoustic tags on these animals and they come right down through that area, you would know when they basically cross that array line. I don't know if you have done anything like that.

MR. HAYMANS: But those acoustic listening devices will not have vertical lines to the surface.

MS. ZOODSMA: The challenge with right whales is that the tagging efforts – years ago when we were attempting to put tags on right whales, they had a pretty remarkable physiological

response. In fact, they'd end up with what looked like little divots, but when you saw them in person they ended up being like these watermelon-size kind of wounds.

So with the population as precarious as it was, we pretty much put a halt on things until we could wrap our heads around what that was all about. And then where are right whales getting entangled; mouths, a lot of mouth entanglements; flukes; and their flippers; so anywhere basically where there is like an angle or an edge.

MR. PHILLIPS: If I remember the presentation, most of the whales are seen inside of 20 meters, and so that is where your interactions are unless they're obviously up in New England or something?

MS. ZOODSMA: Yes, I think that is a really good thing is that, yes, if you keep in mind that many of the whales are seen in water depths of 10 to 20 meters.

MR. CUPKA: Okay, we still have a lot to go through, so I'm going to cut off questions at this point, but I think Barb will be around for a little while today, and you can get with her one on one if have some more questions. Thank you, Barb, we appreciate it. Next is our Atlantic Large Whale Take Reduction Plan, and Jessica is going to cover this for us.

DR. MacLAUCHLIN: Mike just sent this out to you guys in an e-mail. It is Protected Resources Attachment 3. Then you will get a copy of Barb's presentation, also.

MS. POWELL: Thank you to the council for inviting me to be here today. I'm going to talk to you a little bit about our Atlantic Large Whale Take Reduction Plan and the Proposed Rule that we currently have out right now to help address some of the entanglement issues regarding vertical lines in the water.

I will go into a little bit about the development of that rule, and I think that will get into some information that you all are interested in, including explaining a little bit more about the co-occurrence model and how that was used as a tool here. Just to kind of give you an overview of what I'm going to talk to you about today; first I want to give you a little bit of an introduction to the Atlantic Large Whale Take Reduction Plan and team under the Marine Mammal Protection Act.

I think this will help kind shape the rest of our discussion and help understand where we're coming from with the proposed vertical line rule development. I will also talk to you about the co-occurrence model that was used as a tool by the Atlantic Large Whale Team and as one management strategy for addressing entanglement with right whales.

I also will give you an overview of what our rule looks like, what the proposal looks like in the Southeast, Mid-Atlantic and Northeast. Looking at the Atlantic Large Whale Take Reduction Team, these are established per the Marine Mammal Protection Act. They are multi-stakeholder groups that are balanced between fishermen, scientists, conservationists and state and federal entities.

I know we have a couple of folks around the table that are actually part of this team. The Atlantic Large Whale Take Reduction Team specifically was established in 1996. Each team develops the plan; and the idea behind this plan is to reduce the injuries and deaths of large whales due to incidental entanglement in fishing gear.

There are some very specific mandates that the team is required to meet under the Marine Mammal Protection Act. I'm not going to get too much into this today, but I just wanted to make you guys aware of that. It is not a general goal, but there are some very specific numbers that we must meet related to the potential biological removal, as Barb alluded to.

The plan does evolve so it constantly is evolving to look at new information when it comes to fisheries and whale biology. Currently if you were to look at the plan, some of the things you would see is there are restrictions currently on where and how gear can be set. The plan also includes research into basically whale life history, biology as well as the fisheries that interact with the whales.

There are also outreach components as well as the Large Whale Disentanglement Program. Now kind of jumping right into the development of our current rule, the vertical line rule, in 2003 the team kind of agreed to two overarching principles. Those principles were, number one, they wanted to address ground lines, so this is basically the lines in between pots on trawls. This pertains more towards the northeast.

We know those were a big entanglement risk because there were basically large floating lines in the water that were risks to swimming whales or even feeding whales. The second thing the team recognized and needed to address was the end line or buoy lines, because as Barb said any vertical line in the water does pose significant risk to right whales and humpback whales.

The team actually first addressed the ground line issue, and that was a very kind of one size fits all, all down the east idea. The idea behind that was basically if there was floating ground line, it had to be replaced with sinking ground line, to pull that line down out of the water column, so that it was less of a risk to the animals.

Then in 2013, after a couple of years of discussion with the team, NMFS published the proposed rule to address the vertical lines in the water mainly from trap/pot fisheries. Why is action still needed? Well, as I said earlier, the Marine Mammal Protection Act gives us some very specific goals have to reach to reduce mortalities and serious injuries from commercial fishing activities that may be affecting or are affecting the population's ability to obtain kind of – for the population to obtain a sustainable population level.

As Barb showed you, right now fisheries' entanglements alone were basically double what potential biological removal is under the Marine Mammal Protection Act, so we have to do something about that. Kind of getting into the development of the rule to give you an idea of how this came about, basically what the team told us is instead of that one size fits all that we took from basically the northeast down to the southeast region with the sinking ground line, they wanted to look at a more customized approach, looking at different types of strategies for addressing vertical line entanglement.

Of course, the goal here was to reduce the risk of vertical line entanglements with large whales and to focus on places that have high conservation value. Also, they really wanted the public's input early on in the process. How we did this is the team took a very analytical approach. One of the tools they used was to look at an overlap of whale sightings and gear, but they also looked at special conservation areas.

This particularly pertains to the southeast, so they looked at areas where there were grounds used for calving, nursing, breeding or feeding, basically areas that there is a higher density of right whales and some of those whales might be important to the population recovery. This was actually kind of a fantastic plan because it basically allowed us to use several different kind of vertical line strategies when looking at this rule.

There were parts of the rule that are focused on gear density, parts that were based on whale density, some that were based on co-occurrence; and particularly here in the southeast focused around whale life history and behavior. Just to give you an idea of where we started and where we are, you can see this process started in 2011 where we engaged the public and stakeholders to get proposals and start really addressing this problem.

In 2013 where we are now is we published the proposed rule this summer. We literally just finished. I was here exactly a week ago conducting a public hearing, so we just finished our public hearings, and we plan to publish in the summer of 2014 with the final rule. As I said, we just finished our public hearings, so our next step right now is to look at those comments, analyze them and just figure out if we need to refine any of our management proposals.

As I just mentioned, one of the tools that was used by the Atlantic Large Whale Take Reduction Team was a model designed to help analyze the overlap between vertical line and whales. This was set up so that the team can look at – again give them another strategy, a tool to look at how should we address this entanglement problem?

I want to be very clear up front that the team wanted a here-and-now snapshot. They were not interested in the history of how fisheries worked. The data used in the model for fisheries is from 2010 to 2011, so it is very recent data. The data I'm going to show you today is particularly from 2011.

The data from North Carolina and from federal entities and sources is from 2011 that you're going to see here today. When it came to whale-sighting data, this is actually a compilation of various sources. There are a number of different research programs working on whales, and so this is a compilation of all those things.

The team also took kind of a different approach to this. This is kind of an average or a smoothing of data from 1978 to 2010. The reason for that is because, as Barb kind of alluded to, resources change and so we kind of wanted to get a full picture of how whales were moving, and so we couldn't do that just by looking at one year. There would be too many holes.

I just want to be clear up front before we get into some of these data to explain some of the caveats that we're going to be looking at here. This model was not the sole driving force for the

southeast region management. As I said, the southeast is considered a special conservation area. The reason for that, as Barb has talked about, is because of the high density or reproductive females and young animals, so that was given a heavier hand in consideration when being looked at by the team.

I also want to be clear, too, that when you see this model, you will not see black sea bass data in the winter months. The reason for that is because this is 2011 fisheries' data; so black sea bass, as I think you all are very aware, the season was not open I think past September, and so you will not see that here; that the team was under the impression that there was no co-occurrence basically between the southeast black sea bass fishery and large whales.

That was actually specifically noted in the preamble of the rule, that it was a notable thing that was helping protect large whales. Here we're going to get into a little bit of the Mid-Atlantic data. As you see, there is going to be a lot of problems with this model, which I'm going to kind of walk you through. There are a number of layers to the model.

This is a monthly average, so this is January through December and kind of an average over that timeframe. As you can see here, North Carolina is included in the Mid-Atlantic Region when it comes to the Atlantic Large Whale Plan. As you will see here, these little colored blocks here represent vertical lines; the darker the color, the more lines. This is also all fisheries.

The team did not discriminate against vertical lines, so this is basically including all fisheries that have vertical line. This includes gillnet, this includes whelk fisheries, scup, lobster, everything. You can see here this is where our vertical line is. Here is where the problem is, and Barb alluded to this. Basically, the Mid-Atlantic for us, when it comes to right whales and even humpback whales, is a giant black hole.

We don't have a lot of information on how animals are moving. We don't have a lot of sighting effort in here. This was actually quite controversial, and actually we did get a letter from the scientists explaining how this model is not representative at all when it comes to the Mid-Atlantic because we just don't have – the right whales and humpback whales are very underrepresented because we just don't have the data.

If you're interested in this, I would be happy to talk to you a little bit and show you month by month, and you can see for the most part the Atlantic is mostly just black, meaning that there is no effort. You can see here that we have very few whale sightings, and this is just a perfect example of what happens when you use sighting data.

This is what this model used; it used sighting data so you can really see the sampling bias here that Barb was talking about. As Barb said, we know that whales have to move through this area; but as you can see, it is not represented here by the model. Here is the co-occurrence, and as you can see this is really a big problem here because you can see there are only a few blips here.

Again, this is the monthly average over the whole year. This is really a big problem because what is happening here is that the whale layer right here is basically zeroing out all of these blocks here, because there are no sightings of whales, so it is zeroing out the vertical line. So,

really, the team recognized this model for the Mid-Atlantic was not a good representation of co-occurrences. It is not really a true picture of what is going on.

I think the team recognized – and I know David can speak to this – that the Mid-Atlantic, as Barb said, needs a lot more work when it comes to understanding whale movements. This is what we're looking at for the Mid-Atlantic. It is not very representative and it didn't really serve as a very helpful tool to the team when it came to this Mid-Atlantic Region.

One of the other things I do want to touch on here is that – and you'll notice, as I said, this is a yearly average, so this is over 12 months. When I get into the southeast data, you'll see that I'm going to be using an average over November through April. The reason you're seeing kind of a larger-scale picture here is because, as I said, we don't know a lot about whale movements here, but there are a lot of different timeframes represented here; so the whales could be off New Jersey more in the summer months, when they're off North Carolina more in the winter months, and so they had to kind of show the whole picture here.

Here is the southeast. This is the vertical line data for the southeast. Now, what you're seeing here, this is basically driven solely by the blue crab fishery; and so that actually informed a lot of our management strategies that you'll see. You'll see here that there are a lot of lines right here; and, as Barb said, that was kind of right in our core calving area, so that was an area we were concerned about.

Now, as you'll see again this is all fisheries, although I will say this is mostly driven by blue crab. This is between November through April on average, because that's when we know that is the only timeframe that we will see whales in this area, really, for the most part. Again, here is our sightings per unit effort data.

Again, this gets to a really great point that Barb made. As you can see, here is our kind of core area here off Georgia/Florida of right whales; and you can see that South Carolina, there are not a lot of animals. You might remember some of those models that Barb showed have a much better representation of what is going on. When you look at this sighting data, it doesn't really give you a fantastic picture or a very accurate picture of what is going on, but this is what we had to work with.

As you can see again, right whales in the southeast are driving it; whereas, in the Mid-Atlantic you definitely have some humpbacks and off of North Carolina. When it comes to the southeast, we don't really see other large whales. When it comes to basically South Carolina and Florida, what we're looking at is right whales driving this score here.

Here is the co-occurrence when you basically overlay the lines and the whales. You can see again this area of concern right here, ocean blue crab overlapping with kind of a core calving area for large whales, and so that kind of drove us into how we designed our management for the southeast.

Just to give you an idea of what our rule is going to be proposing; basically what we did is we created a new trap/pot management area that you will see here. This overlaps with the current

gillnet-restricted area. Now, the period here where the restrictions will be placed under is November 15th through April 15th.

I want to explain this because I noticed there is some confusion about these dates. As you can see, this is going from South Carolina to Florida; so, okay, North Carolina is not included. Once you add North Carolina, you basically have to account for more time for the animals to come down, right, so we know they're basically in this area at November 15th.

That means that they're in the North Carolina area earlier because they have to come down into this area south of North Carolina. Okay, so that's why this time period is November 15th through April 15th. Some of the things we're proposing within this entire area during this restricted period is no trap trawls.

As Barb said, we have a lot of young animals here and we know that they cannot survive heavy gear, and so one of the strategies we took here in the southeast was we need light gear. If the animals do get entangled, we need them to have a chance of getting disentangled. One of the things we are proposing here is no trawls.

Also, we're proposing a vertical line free of objects, meaning no small buoys at the top of the pot, no weights in the line. The idea behind this is that if an animal does get entangled, that the line can actually pull through the baleen. As Barb said, we know that the animals sometimes get entangled to their mouth because they open their mouth, suck in the line, it gets trapped in their baleen, which is very tightly packed.

So sometimes even a knot can trap that line; and if that line gets trapped in the mouth, that basically messes with the animal's feeding morphology and the animal can basically starve to death. The idea here is that the line can pull free of the baleen so that animal can survive that entanglement.

This area is further subdivided, as you will see, into federal waters, which is this hashed area here, as well Florida state waters and Georgia/South Carolina waters. We will get into that in a second. Also, we're going to be requiring more gear marking, and the idea there is to try to help us get a better picture of what is going on. As Barb said, I believe it is less than 10 percent of gear that comes off whales, that are actually found entangled, is identifiable to location, so very infrequently do we know where the animals actually entangled.

Particularly in federal waters you will see that – you might recognize this – gear must be brought back to shore at the end of each trip. We did recognize the value of that for right whale conservation, so that is something that you're seeing in the southeast in this new trap/pot management area here is we are proposing that gear is brought back at the end of each trip.

We are also requiring that vertical line does not exceed 2,200 pounds. Again, the idea here is to keep the gear light and the animals have a chance of surviving if they are entangled. This is basically an offspring number ten line; that is what that equates to. Also, weak links, these basically will pop off the buoy if an animal is entangled, so again that is kind of one stream of

line that there are no objects; and so weak links not to exceed 600 pounds; and again some specific gear marking here.

Florida state waters; as I mentioned we know whales come very close to shore in Florida because the waters are deeper closer to the coastline. You will see that we proposed – working with blue crab fishermen, we proposed a little bit more stringent restrictions here to help protect the heavier overlap between that fishery and right whales.

You will see here that the vertical line breaking strength cannot exceed 1,500 pounds, which is basically an offspring number eight line. Weak links are not to exceed 200 pounds; again to help keep that gear light and for animals able to break free; and then again our gear-marking requirements.

For Georgia/South Carolina waters we were able to be a little more flexible here, and the reason for that is, as Barb showed you in the model, they tend to be a little bit farther offshore, just outside of state waters off Georgia and South Carolina because they're looking for that particular depth that they like. In state waters vertical line cannot exceed 2,200 pounds; and again the weak link restriction not to exceed 600 pounds.

I will get a little bit into the Mid-Atlantic. Currently in the Mid-Atlantic the northeast is basically proposing continued monitoring to look for any effort increases in fisheries or increases in effort that were not originally brought to the attention of the team. Also, of course, again everyone is being required to have increased gear marking.

In the northeast; this is a very, very complex system up here in the northeast, but basically the gist of it is there is going to be closures in areas that are considered very density for whales. Also, there will trawling up in areas to help reduce the number of vertical lines. In conclusion, just to kind of wrap up here and kind of give you some kind of major points here, when it comes to the Mid-Atlantic – and I think Barb pointed this out well – right whale and large whale presence is very underrepresented in our model.

There is a lot of sampling bias in this area; there is not a lot of effort; so that is a concern when looking at the model and something to take into consideration. Black sea bass trap/pot effort is not represented in the co-occurrence model during the winter months, and that is because the team was particularly looking at a snapshot. They wanted to know what is the here and now, so again they're looking only at 2011 data. That's what they were looking at.

Also, it is important to remember that the driving force really for the southeast management was that the high density of reproductive females and very young animals. As a result, the southeast portion of the rule is designed to keep gear very light so that animals can break free. That's all I have so I don't know if there is time for questions.

MR. CUPKA: Are there any questions; I am sure there will be. Michelle.

DR. DUVAL: Thanks a lot for the presentation, Jessica. I was just curious do you have any like sort of metrics of success that you're looking at using to sort of measure how well the proposed

measures within the new rule might work or how well the previous measures have worked or not worked?

MS. POWELL: That's a great question. One of the things I didn't get into, each team is required to have a monitoring plan. That plan lays out how they're going to monitor the success of their regulations. Off the top of my head, I can tell you that for the Large Whale Plan in particular they're looking at a variety of metrics, a number of things.

They're going to be looking at entanglements, the gear coming off the animals, all those different things, but I believe that information is available. If you want real specifics, the monitoring plan should be available at the Atlantic Large Whale Take Reduction Plan Website.

MR. BOWEN: I noticed on one of the pictures you were putting up on the screen, the 30/100 Line, your whale area – I guess your whale area on the 30/100 line, the way it appeared to me by that picture was almost 70 miles offshore.

MS. POWELL: You're checking about the Mid-Atlantic here?

MR. BOWEN: No, ma'am, the South Atlantic; it is the 30/100 Line.

MS. POWELL: So you're talking about for right whales, I'm assuming?

MR. BOWEN: Yes, ma'am; PDF 24. There you go; that will cover it. The 30/100, that is approximately 70 miles offshore?

MS. POWELL: Um-hum.

MR. BOWEN: That just seems like a long ways.

MS. POWELL: Yes, the idea behind here was to use an existing area for the fishermen. As Barb said, we are getting information now that suggests that this maybe needs to be refined; all those presentations she said that were hot off the press from 2013. So, yes, we're definitely keeping that in mind and that is something we received a lot of public comment on as well, and so that is definitely something to have to go in and reanalyze, absolutely. That's a great observation.

MR. JOLLEY: In some of these figures you had squares; were those one degree squares of area?

MS. POWELL: Yes.

MR. CONKLIN: In your discussion in doing all these measures and weak links and stuff like that, was there any consideration – I mean, there is enough data there to say that they occurred between 10 and 20 meters. Would it be a little more – if you wanted to let the blue crabbers still crab on the beach in the wintertime, if you closed it from like 7 meters to 30, that would be a hundred foot of water, and people can still run pots offshore and be able to make a living like

that with smaller – a really refined area; or you just basing this off that a whale might swim out 70 miles in the ocean with no evidence.

MS. POWELL: No, we did receive some comment on that. The information we received from the states suggested that blue crabbers do not fish in federal waters. This was the initial information we got. You will see that's the reason that the area was broken down into state versus federal waters because we were trying to look for a way we could accommodate the blue crab fishermen so that they could still fish in the ocean, so you will see those very light gear requirements.

It wasn't until we had the public hearings last week that we received the information that blue crabbers were fishing in federal waters, and I think this was a surprise to some of our state partners as well. That is something that we will have to take a look at when we analyze some of our comments.

MR. BELL: To that specific point about the crabbers, there is a difference between what the state can officially tell you that the crabbers have reported and perhaps what you were hearing at the public hearings as to what they're doing.

You mentioned the hot off the press data that is sort of the 12 to 16 degree isotherms, and I think what our crabbers are doing is coming out and looking for that 10 degree, so they're actually not maybe out in that sweet spot of the 12 to 16, to the degree that matters for the crabbers. But, yes, that was a little bit of a surprise, I think, for us as well.

DR. MacLAUCHLIN: About the co-occurrence model, you said that because you used the 2011 data for the black sea bass pots, that you assumed no co-occurrence with right whales, so you have a value of zero for black sea bass pots and right whales?

MS. POWELL: Right. In anticipation for this meeting, what I did is I went back and I looked at the raw data. What was recorded was basically zero active black sea bass trap/pot vessels from September through May, and so that gives you a score, obviously, of zero, right, because you have zero vertical lines. That is the information that the team had at the time.

DR. MacLAUCHLIN: Going back to Michelle's, like a quantitative – some of kind of success metrics and you talked about you have specific numbers to meet that you're mandated related to the PBR, and those are quantitative. I have tried to find those on the Take Reduction Plan Team Website, and so I was going to see if you could maybe provide those to the committee, and I could distribute them.

MS. POWELL: Sure. I'll tell you right now that I can point to you where that is. That is more on our general website regarding take reduction teams. The immediate goal of a Take Reduction Plan is to reduce within six months of implementation the incidental serious injury or mortality of marine mammals from commercial fishing to levels less than PBR.

That is kind of the immediate goal. You can see we're already a little bit behind on that. We're working on it. The long-term goal of the mandate for the Marine Mammal Protection Act is to

reduce within five years of its implementation the incidental serious injury and mortality of marine mammals from commercial fishing operations to insignificant levels approaching a zero serious injury and mortality rate, taking into account the economics of the fishery, the availability of existing technology and the existing state of regional fishery management plans.

To clarify there, zero serious injury and mortality rate is actually define per the Marine Mammal Protection Act; that means basically 10 percent of potential biological removal. That is what equals zero in a very roundabout way.

DR. MacLAUCHLIN: I think that I am interested in and maybe the committee is also about how you guys deal with fact that the PBE is 0.9, which means that you always have to be below zero – I guess how you evaluate the effectiveness of rules and the effectiveness of expected impacts of proposed rules. I think that's something that we're kind of interested in how you guys measure that in a quantitative way.

MS. POWELL: I particularly have the details on that. As I mentioned before, that definitely is in the monitoring plan. I would be happy to provide that to you. I believe it is on the website, and it is about I think a 50- or 60-page document, so there are lots of ways that the team looks at that.

I will tell you, though, that the science does take a couple years to catch up with the regulations, right, so there is a grace period there where it takes some amount of time to get enough power to analyze if the regulations are working. I believe that this year or next year, it will be the first year they're able to evaluate the effect of the sinking ground line rule.

I can tell you that if you're looking to see how this proposed rule will be analyzed, it is definitely going to take some time for the rules to be in place, to get everyone in compliance, and to basically look at the effects on the population to see how it is helping. It will take a couple of years, but all that information is into the monitoring plan how that is assessed.

MR. HAYMANS: Just real quick about terminology; there seems to be some misunderstanding over the differences between the northeast terminology and the southeast terminology. A trawl in the northeast is a connection of traps along a ground line and not a shrimp trawl as it is used in the southeast, and this plan does not cover shrimp trawls.

MS. POWELL: Yes, thank you for that clarification; that is correct. A trap/pot trawl in the northeast is a connection of a number of pots, so there two end lines basically, two buoy lines, if you will, and in between can be anywhere between three and I think in some cases almost seven pots.

MR. COX: I'm just wondering about what is the confidence level of your weak link to be effective for the calves, for the small whales with that part. When you guys found interaction with the whales and they had ropes entangled in them; were there weak links in the rope?

MS. POWELL: I am going to let Barb take that one because she deals a lot more with the strandings than I do.

MS. ZOODSMA: If I understand, the question was have we pulled gear off from right whales or other large whales where there have weak links?

MR. COX: Yes, it was kind of two questions. One was is the weak links in the line, the 600-pound breaking weak link; is your confidence level pretty good that if a calf were to get entangled in that line, that would weak link would do its job.? Then the other part of the question was when you found whales that were entangled; did they have any of these measures in place to protect them; you know, the weak link, the plastic thing that we used for the buoy to detach from the line.

MS. ZOODSMA: We're not very sure. We're using the best available information to come up with these weak link breaking strengths; you know, you calculate in how much a whale could exert, how much force a whale can exert, ya de, ya de, ya de, so that's how we have come up with some of those weak links.

Have there been weak links on animals? Yes, we have seen weak links on animals, but you have to go back to the purpose of the weak link, and that is to basically release the buoy from the vertical line. Sometimes the buoy breaks off and sometimes it doesn't, and the buoy will just – sometimes if they're like high fliers or something, the buoy itself will shatter and the stick remains on, but the whale is not pulling in the exact place, so it is getting entangled in the middle of the line, if you understand that, and then the buoy may be trailing behind and then starts banging into other things and may break. We have seen weak links on whales, but we're also aware of instances where weak links have broken off and gears come off whales.

MR. CUPKA: Okay, we will take one more and then we've got to move on. We've still got some material to cover.

MR. BELL: I was just going to say that based on how the black sea bass gear is configured and all, you know, if lightweight is important to you, it is lightweight gear, and I don't see a problem with the configuration, the color pattern and all that stuff. Also now the way that they're required to – there is a very, very minimal number of pots.

There is a minimal number of permitted or guys with endorsements. It is just not a whole lot of gear. Of course, that would have to be reconfigured, whatever we might be looking at, back into your model to run – is it 2011, during that time period, there wasn't anything going on.

But another thing to think about, if it is important for you, I know you don't see a lot of gear, but if you really wanted to know the specific fishery – I know you have your color pattern that kind of differentiates between state waters and federal waters, but you could use a simple – and I recommended this for the crab fishery – add a simple one white band for the crab fishery and two white bands for the pot. I mean, if you really want to know what exact fishery, that is a simple matter of adding a stripe on there or something or a couple of stripes. It would help you out if you recover gear.

MS. POWELL: And that is a great suggestion. We did actually try to do that for this rule. The problem is we basically ran out of colors. What you're not seeing here is there are a lot of areas

in the northeast, they have a very complex management scheme up there, so they suck up a lot of colors basically identifying all those areas.

The other issue we run into with line – and we're hoping to fix this with the three marks. Previously we only required one mark and so the chances of us getting a piece of line with that one mark on it weren't so good. We hear you and that was definitely a recommendation that came from the team. We definitely tried it, so we're kind of taking our fourth step towards this with identifying very specific areas. We do hear you; we definitely want to get there eventually.

MR. BELL: And I failed to mention – you mentioned that 10 to 20 meter kind of spot. Most of our sea bass fishing is really outside that 20 meter area, at least where we are, anyway.

MR. CUPKA: Okay, thank you, Jessica and Barb, for coming up here, and I'm sure we'll be talking with you more as we move ahead with some of these amendments in the future. Now we have an ESA Working Group Update, and I think Kari is going to handle that for us.

DR. MacLAUCHLIN: Mike just sent you another attachment. That is this presentation that is kind of a briefing. In your briefing book you received copies of anything that has been finalized and published or made available to the public about the ESA Working Group. I just wanted to give the committee an overview of what this group is doing and their plans and hopefully be able to continue to update you on these things.

This presentation was provided by staff at the Western Pacific Council to me, and they had presented that in June. Their staff there has been involved with the ESA Working Group. This group was established in response to the Council Coordinating Committee because there have been some similar concerns and challenges in the regions with the councils.

The CCC had made a recommendation to form this joint working group with the CCC and Marine Fisheries Advisory Committee, MAFAC, and NMFS folks with the purpose to identify potential options for improving the process used for the ESA Section 7 Consultations of fishery management actions.

Here are the folks that are involved in this working group. We have representatives from different councils and then we have the MAFAC members that are on there and then NMFS folks that served on the working group. They started last October and have had some webinars during some of the meetings.

Then in May, during the Managing our Nation's Fisheries Conference, there was also a MAFAC meeting and a CCC meeting and other folks there, so they were able to all get together in May and provided a six-month report after that meeting. They have had a couple of teleconferences where they're discussing their final recommendations that they're going to make, and that should be ready about October.

Here are some of the priority issues that were brought up at this working group that they identified, and some of them will have been some things that the committee and council have discussed, also: Council involvement in consultations regardless of the trigger; if it is a council

action, new information, litigation, new listings, et cetera; anything that would trigger a consultation; transparency of Section 7 Consultations; better guidance from NMFS on council actions – for example, what is the jeopardy threshold; when the council is considering an action, having Protected Resources provide more information about the different alternatives and the range of alternatives before it is selected – we do have through our IPT process, you know, Protected Resources staff is involve in a lot of this – insufficient scientific data on protected species. We just spoke about that.

You have in the attachment that went out in the briefing book as part of their summary reports, these options matrix, and options matrix is kind of towards the end. This is just one page of it, but they've identified each of these kind of parts of how a council could be involved with a consultation and contribute, and then what it would do, the timing – like at what point would be council be involved, pros and cons.

Again, these are things that the working group discussed during their meetings that are going all into a final recommendation from the working group to NMFS. Out of the six-month report that is in your briefing book, here are some of the highlights that have come up that the working group has focused on: options for early involvement of the councils in Section 7 Consultations; IPT's for the FMP actions. We already have that here in the southeast.

Technical assistance, formalized and not formalized, so kind of this council consultation and being able to provide assistance; and then NMFS Protected Resources Liaison to each FMP action, which we also have kind of in the form of our IPT and the Protected Resources folks coming into the meetings.

Some additional highlights from the report: councils as an action agency or co-lead, cooperating agency along with Sustainable Fisheries Division of NMFS; councils as applicants; councils as non-federal representative; and sharing of draft biological opinions with the council regardless of any kind of change in the council's status in regards to these Section 7 Consultations.

The last kind of highlight, option for involving councils throughout the consultation process, which is something that hopefully we have started here with your motion that you passed at the last committee meeting having a briefing and allowing input from the council throughout any formal consultation.

This is a highlight from the working group that will be a part of their recommendations when they finalize those; an overarching MOU approach, so kind of memorandum, policy guidance, or MOU to establish authorities under which councils can be involved in the ESA Consultations and for each consultation council may request in writing involvement in the consultation process.

These are all the items that have been discussed and nothing has been finalized yet, and they're still working on that. Other topics that have come out of the working group: council involvement when consultation is triggered by litigation; better guidance from NMFS on council actions; and then insufficient scientific data on the protected species; a discussion ongoing to develop data quality rating.

We talked there is not a lot of information – you know, as much information as we would like about right whales, about some kind of quality rating to evaluate this. The next steps is they're continuing to refine the options and the final recommendations from the working group to NMFS will be delivered in October. Hopefully, once those become public, I will be able to give another briefing on what was in the recommendations and the next steps for NMFS in December if we have a Protected Resources Committee.

MR. CUPKA: Thank you, Kari, and a lot of this was driven by concerns particularly from the Western Pacific Council who felt like they weren't involved in some of the consultations or the degree to which they were involved, and then there seemed to be a lot inconsistency between the different councils as far as how they were interacting on protected species or ESA issues.

This was to try and get some more consistency and transparency into the process and clearly define the role of the councils in these particular processes, what they do, can't do and how they interact with NMFS. It is ongoing work and hopefully it will be finalized toward the end of this year and then staff can report back to us on the final outcome of those negotiations or developments.

MS. LEE: I just wanted to point out that the Southeast Regional Office is involved in this effort. David Bernhart, head of our Protected Resources Division here, is on the working group. You noted from some of the particular points that Kari pointed out, we have been active in this process. A lot of the suggestions that are coming out of this are actually things to some extent that we do here in the Southeast Region, as Kari pointed out.

You do have Protected Resources Liaison involved and on IPTs and at least to some extent you are getting information on these biological opinions in terms of how they're proceeding. I think at the last council meeting, the latest motion you had as far as getting updates at every meeting is good, so I just wanted to point out that we're definitely involved in this and actually taking a pretty good role in it.

MR. CUPKA: Yes, and I think we are ahead of the curve in some regards here in the southeast, but unfortunately not all the councils are in the same position we are and enjoy the same working relationships and understanding how the process is supposed to function and the respective roles of the parties involved. I think it is a good thing; and as Jenny has pointed out, we're already doing some of this.

I think it has worked well and we're going to continue to explore ways to increase this interaction. Are there any questions for Kari? If not, then we're going to move ahead. We have got about ten minutes left and we've got some additional briefing and some things that Wilson has brought up that he just wants to bring to our attention. Jenny was going to do river herring and then we're going to turn it over to Wilson.

MS. LEE: Okay, we just wanted to update and let you know at the last meeting we gave some information about how a status review was underway. At this point, in August we published our 12-month finding and we determined that based on the best available information the status review team concluded that alewife are at low risk of extinction from the threats identified. They

did a thorough qualitative threats' analysis, looking at threats including dams and other various migration, incidental catch, climate change, dredging, water quality.

Then for blueback herring, they identified them at a moderate low risk of extinction from similar threats. NOAA Fisheries concurred with their conclusions and so we determined that as a result of the extinction risk analysis for both species; these two species are not in danger of extinction or likely to become so in the foreseeable future.

In the finding we did commit to partnering with the Atlantic States Marine Fisheries Commission and others to develop a proactive conservation strategy in order to fill in data gaps for both species which were identified during the process and begin to implement conservation efforts to help ameliorate some of these threats.

We are working with the Atlantic States Marine Fisheries Commission now to finalize a plan for the conservation strategy and will be engaging with interested parties in this development in the very near future. Anyone who really wants to understand the details of this, the Federal Register Notice was in your briefing book and hopefully you had a chance to look at that.

MR. CUPKA: Thank you, Jenny. Are there any questions for Jenny? If not, now we're going to move into Wilson's overview.

DR. LANEY: This will be very brief. With regard to American eel, there is nothing new on the CITES. My understanding is the Service will be putting out an RFP some time early next year to solicit new CITES proposals. We anticipate that some of the NGOs may once again request us to propose American eel for CITES Appendix 2 listing, but that is yet to be determined.

With regard to the status review, it is scheduled to begin in January. There has been some internal movement, and there will be further internal movement between now and December, so I hope to be able to come back at the December meeting and let you know how the Service is going to proceed with that, whether there will be a formal status review team or whether we will do it with workshops as we did the 2007 status review or exactly what approach we will take.

The last thing on eel is just to let you know that they're continuing to arrive in large numbers at the Roanoke Rapids Dam on the Roanoke River. So far through August 31st, we have trapped and transported 714,589 more or less eels at the two eelways on the Roanoke Rapids Dam, so that is on pace to jump up another order of magnitude over the last three years. If you recall when we first began sampling there early on, we were catching them in the tens of thousands, and in the first three years of operation they jumped up to the hundreds of thousands and now it looks like we're on pace to make crack million this year. I don't know; we'll see.

With regard to the loggerhead sea turtle critical habitat, the Service did complete its economic analysis. You have that in the attachments or at least you have the summary of that. I think you can get the whole document if you're interested from the website. We did hold public hearings. They were pretty well attended, I think, and there were lots of comments and lots of interest in that.

All those comments are also posted online; so if you have questions about that, you can either go to the website or contact Dawn Jennings, who is the acting supervisor in our Jacksonville, Florida, Ecological Services Office. Finally, with regard to the Atlantic sturgeon stock assessment update, the Joint Atlantic Sturgeon Technical Committee and stock assessment subcommittee met in Providence, Rhode Island. August 19th through 22nd.

I think we had a very productive data workshop for Atlantic sturgeon. We reviewed all the data sets that are out there. We had a lot of academic folks there with us, Doug Peterson from Georgia, Mike Dadswell from Canada, quite a few other folks who are working on Atlantic sturgeon and provided data to us.

This is kind of the first step of that process. There will be additional meetings scheduled, and I'm sure we'll keep you posted. There were NMFS folks there in addition to Fish and Wildlife Service folks. Christine Lipsky was representing the Northeast Fisheries Science Center and Fritz Rhode from the Habitat Conservation Division was there representing the southeast, not officially, but I think not a participant in the stock assessment process, per se, because he is not on the stock assessment subcommittee or the TC, but Fritz was there just to listen in for the southeast. I would be happy to answer any questions if anybody has any, Mr. Chairman.

MR. CUPKA: Are there any questions for Wilson. Seeing none; is there any additional business to come before the committee. Seeing none; then we are adjourned.

(Whereupon, the meeting was adjourned at 10:58 o'clock a.m., September 19, 2013.)

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South Atlantic Fishery Management Council
2013 - 2014 Council Membership

COUNCIL CHAIRMAN:

David M. Cupka
P.O. Box 12753
Charleston, SC 29422
843/795-8591 (hm)
843/870-5495 (cell)
palmettobooks@bellsouth.net

VICE-CHAIRMAN

Ben Hartig
9277 Sharon Street
Hobe Sound, FL 33455
772/546-1541 (ph)
mackattackben@att.net

GA Obligatory Seat (Vacant)

Robert E. Beal
Executive Director
Atlantic States Marine Fisheries Commission
1050 N. Highland St., Suite 200 A-N
Arlington, VA 20001
703/842-0740 (ph); 703/842-0741 (f)
rbeal@asmfc.org

Mel Bell
S.C. Dept. of Natural Resources
Marine Resources Division
P.O. Box 12559
(217 Ft. Johnson Road)
Charleston, SC 29422-2559
843/953-9007 (ph)
843/953-9159 (fax)
bellm@dnr.sc.gov

Anna Beckwith
1907 Paulette Road
Morehead City, NC 28557
252/671-3474 (ph)
AnnaBarriosBeckwith@gmail.com

Chris Conklin
P.O. Box 972
Murrells Inlet, SC 29576
843/543-3833
conklincc@gmail.com

Jack Cox
2010 Bridges Street
Morehead City, NC 28557
252/728-9548
Dayboat1965@gmail.com

Dr. Roy Crabtree
Regional Administrator
NOAA Fisheries, Southeast Region
263 13th Avenue South
St. Petersburg, FL 33701
727/824-5301 (ph); 727/824-5320 (f)
roy.crabtree@noaa.gov

Dr. Michelle Duval
NC Division of Marine Fisheries
3441 Arendell St.
PO Box 769
Morehead City, NC 28557
252/726-7021 (ph); 252/726-0254 (f)
michelle.duval@ncdenr.gov

LT Morgan Fowler
U.S. Coast Guard
510 SW 11th Court
Fort Lauderdale FL 33315
morgan.m.fowler@uscg.mil

Doug Haymans
Coastal Resources Division
GA Dept. of Natural Resources
One Conservation Way, Suite 300
Brunswick, GA 31520-8687
912/264-7218 (ph); 912/262-2318 (f)
doughaymans@gmail.com

John W. Jolley
4925 Pine Tree Drive
Boynton Beach, FL 33436
561/732-4530 (ph)
jolleyjw@yahoo.com

Deirdre Warner-Kramer
Office of Marine Conservation
OES/OMC
2201 C Street, N.W.
Department of State, Room 5806
Washington, DC 20520
202/647-3228 (ph); 202/736-7350 (f)
Warner-KramerDM@state.gov

Dr. Wilson Laney
U.S. Fish and Wildlife Service
South Atlantic Fisheries Coordinator
P.O. Box 33683
Raleigh, NC 27695-7617
(110 Brooks Ave
237 David Clark Laboratories,
NCSU Campus
Raleigh, NC 27695-7617)
919/515-5019 (ph)
919/515-4415 (f)
Wilson_Laney@fws.gov

Jessica McCawley
Director,
Florida Fish and Wildlife Conservation Commission
2590 Executive Center Circle E.,
Suite 201
Tallahassee, FL 32301
850/487-0554 (ph); 850/487-4847(f)
jessica.mccawley@myfwc.com

Charles Phillips
Phillips Seafood / Sapelo Sea Farms
1418 Sapelo Avenue, N.E.
Townsend, GA 31331
912/832-4423 (ph); 912/832-6228 (f)
Ga_capt@yahoo.com

BARB ZOODSMA
JESSICA POWELL
PHIL STEELE
BONNIE PONWITH
MONICA SMIT-BRUNELLO
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JACK MCGOVERN
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PRES PATE
ROBERT BOYLES
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South Atlantic Fishery Management Council
Staff

Executive Director
Robert K. Mahood
robert.mahood@safmc.net

Deputy Executive Director
Gregg T. Waugh
gregg.waugh@safmc.net

Public Information Officer
Kim Iverson
kim.iverson@safmc.net

Fishery Outreach Specialist
Amber Von Harten
amber.vonharten@safmc.net

Senior Fishery Biologist
Roger Pugliese
roger.pugliese@safmc.net

Fishery Scientist
Myra Brouwer
myra.brouwer@safmc.net

Coral Reef Scientist
Anna Martin
anna.martin@safmc.net

Fishery Biologist
Dr. Mike Errigo
mike.errigo@safmc.net

Fisheries Social Scientist
Dr. Kari MacLauchlin
kari.maclauchlin@safmc.net

Staff Economist
Dr. Brian Cheuvront
brian.cheuvront@safmc.net

Science and Statistics Program Manager
John Carmichael
john.carmichael@safmc.net

SEDAR Coordinators
Dr. Julie Neer - julie.neer@safmc.net
Julia Byrd – julia.byrd@safmc.net

SEDAR Admin/Outreach
Andrea Grabman
andrea.grabman@safmc.net

Administrative Officer
Mike Collins
mike.collins@safmc.net

Financial Secretary
Debra Buscher
deb.buscher@safmc.net

Admin. Secretary /Travel Coordinator
Cindy Chaya
cindy.chaya@safmc.net

Purchasing & Grants
Julie O'Dell
julie.odell@safmc.net

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Protected Resources Committee
Thursday, September 19, 2013

NAME & ORGANIZATION	AREA CODE & PHONE NUMBER	EMAIL ADDRESS	P.O. BOX/STREET CITY, STATE & ZIP
NCCOS/SC DNR Elisabeth H Laban	843-473-0910	labane@dnr.sc.gov	Fort Johnson, Charleston, SC
Kenny Fex AP	910-620-5847		
Rusty Hudson DSF	386-239-0948	DSF2009@aol.com	PO Box 9351 32120-9351
Liam Carr	843.819.8169	lcarr@pewtrusts.org	PO Box 609 Chas. 29402
Shelley Dearhart SCA	843-579-8567	sdearhart@scaquarium	100 Aquarium Wharf 29401
FRANK BLUM	843-556-2520	scarolinaseafood@knology.net	815 Savannah Hwy Ste 204 Charleston, SC 29407
Michael D. Arendt	843-953-9097	arendtm@dnr.sc.gov	217 Ft Johnson Rd, Chs SC 29412

South Atlantic Fishery Management Council
4055 Faber Place Drive, Suite 201
North Charleston, SC 29405
843-571-4366 or Toll Free 866/SAFMC-10

69	MacLauchlin, Bill	billmac@charter.net	242 min
62	Laban, Elisabeth	labane@dnr.sc.gov	389 min
58	Mehta, Nikhil	nikhil.mehta@noaa.gov	503 min
54	conklin, chris	conklincc@gmail.com	73 min
53	holiman, stephen	stephen.holiman@noaa.gov	359 min
39	Bresnen, Anthony	anthony.bresnen@myfwc.com…	509 min
39	michie, kate	kate.michie@noaa.gov	395 min
39	Knowlton, Kathy	kathy.knowlton@gadnr.org	186 min
37	raine, karen	karen.raine@noaa.gov	388 min
36	burton, michael	michael.burton@noaa.gov	183 min
35	Stump, Ken	magpiewdc@gmail.com	447 min
33	malinowski, rich	rich.malinowski@noaa.gov	136 min
33	DeVictor, Rick	rick.devictor@noaa.gov	435 min
33	Lee, Jennifer	jennifer.lee@noaa.gov	460 min
31	c, m	mec181@yahoo.com	497 min
30	Ballenger, Joseph	ballengerj@dnr.sc.gov	462 min
29	sandorf, scott	scott.sandorf@noaa.gov	480 min
29	Herndon, Andrew	andrew.herndon@noaa.gov	114 min
28	E, A	annemarie.eich@noaa.gov	404 min
28	Helies, Frank	fchelies@verizon.net	410 min
28	froeschke, j	john.froeschke@gulfcounci…	408 min
25	FARMER, NICK	nick.farmer@noaa.gov	225 min
24	pugliese, roger	roger.pugliese@safmc.net	77 min
24	Pate, Michelle	pates@dnr.sc.gov	120 min
24	Brame, Adam	adam.brame@noaa.gov	72 min
23	Bademan, Martha	martha.bademan@myfwc.com	99 min
22	Sedberry, George	george.sedberry@noaa.gov	59 min
22	Recks, Melissa	melissa.recks@myfwc.com	62 min

22	Defilippi, Julie	julie.defilippi@accsp.org…	44 min
22	Sempsrott, Michell…	michelle.sempsrott@myfwc.…	95 min